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Cisco Unified Communications Manager SIP Trunk Messaging Guide (Standard)

For Cisco Unified Communications Manager Release 8.5(1)

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Preface

This document describes the implementation of the Session Initiation Protocol (SIP) for trunk side devices in OL-22509-01.

The preface covers these topics:

- [Audience](#)
- [Organization](#)
- [Conventions](#)
- [Obtaining Documentation, Support, and Security Guidelines](#)

Audience

This document provides information for developers, vendors, and customers who are developing applications or products that integrate with OL-22509-01 using SIP messaging.

Organization

This document consists of the following chapters.

Chapter	Description
Chapter 1, "SIP Standard Trunk Interface"	Provides an overview of SIP trunk messages and standards compliance.
Chapter 2, "SIP Trunk Call Flows"	Comprises a listing of all SIP trunk messages, including sequence charts and examples of call flows.

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Conventions

This document uses the following conventions:

Convention	Description
boldface font	Commands and keywords are in boldface .
<i>italic font</i>	Arguments for which you supply values are in <i>italics</i> .
[]	Elements in square brackets are optional.
{ x y z }	Alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in <code>screen font</code> .
boldface screen font	Information you must enter is in boldface screen font .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
→	This pointer highlights an important line of text in an example.
^	The symbol ^ represents the key labeled Control—for example, the key combination ^D in a screen display means hold down the Control key while you press the D key.
< >	Nonprinting characters, such as passwords are in angle brackets.

Notes use the following conventions:



Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.



Caution

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.



Tip

Means *the following information might help you solve a problem*.

Obtaining Documentation, Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>



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CHAPTER 1

SIP Standard Trunk Interface

This document describes the standard external interface for OL-22509-01 SIP trunk device. It highlights the SIP primitives that are supported across the SIP trunk and also describes basic call flow scenarios that can be used as a guide for technical support.

This chapter includes the following sections:

- [New and Changed Information](#)
- [Backward Compatibility](#)
- [Interface Compliance Summary](#)
- [SIP Message Fields](#)
- [SIP Trunk Supported Features](#)
- [Troubleshooting](#)

New and Changed Information

The new features in this release are as follows:

- [Early Offer](#)
- [Options Ping](#)
- [QSIG Tunneling Over SIPT](#)
- [Static Call Routing](#)
- [H264 Video for Telepresence3rdPartyEP](#)



Note

An upgrade to SCCP TNP phones in version 8.5(1) caused changes to call flows to be different even for a basic call over SIP ICT trunk.

In version 8.0(1), with a basic call, the far end SCCP TNP phone will send the reINVITE with faked port. In version 8.5(1), some SCCP TNP phone won't send reINVITE due to the enhancement in 8.5(1). There will be at least four SIP messages less in 8.5 for a basic call to a SCCP TNP phone.

The phones affected are the RTL 6901, 6911, 6921, 6941, 6945, 6951 and 6961 and the TNP 7906, 7911, 7931, 7941, 7942, 7961, 7962, 7965, 7945, 7970, 7971, and 7975.

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Backward Compatibility

The features that are introduced in this release do not impose any backward compatibility implications on previous versions of the SIP trunk.

Interface Compliance Summary

OL-20951-01 SIP compliance on the SIP trunk depends on the portable SIP stack itself, which is based on the [RFC3261](#) standard.

The current stack supports the following items in [RFC3261](#):

- Can process UPDATE method.
- Support for generating branch and sent-by parameters in Via header used to identify transactions.
- Implementation of loose-routing based on lr parameter in Record-Route header.
- A UAS that receives a second INVITE before it sends the final response to a first INVITE with a lower Cseq sequence number on the same dialog must return a 500 (Server Internal Error) response to the second INVITE and must include a Retry-After header field with a random value of between 0 and 10 seconds.
- If the non-2xx final response to a mid-call INVITE is a 481 (Call/Transaction Does Not Exist), or a 408 (Request Timeout), or no response at all is received for the re-INVITE (that is, a timeout is returned by the INVITE client transaction), the UAC will terminate the dialog.
- If the UAC receives a reliable provisional response with an answer, it may generate an additional offer in the PRACK. If the UAS receives a PRACK with an offer, it must place the answer in the 2xx to the PRACK.
- If a reliable provisional response is retransmitted for 32 seconds without reception of a corresponding PRACK, the UAS should reject the original request with a 5xx response.

Call Manager uses the portable SIP stack from IOS Gateway SunnyD project (EDCS-292452).

[Table 1-1](#) identifies the RFC compliance for the SIP trunk.

Table 1-1 SIP Trunk RFC Compliance

RFC	Call Manager Supported	Comments
RFC2976 SIP INFO Method	Supported	Info method is used for video media channels; Picture Fast Update and Picture Freeze.
RFC2833 RTP Payload for DTMF Digits	Supported	
RFC2782 DNS SRV	Supported	
RFC3261 SIP: Session Initiation Protocol	Supported	
RFC3262 SIP Reliability of Provisional Responses	Supported	
RFC3264 Offer/Answer Model for SDP	Supported	

CISCO CONFIDENTIAL**Table 1-1 SIP Trunk RFC Compliance (continued)**

RFC	Call Manager Supported	Comments
RFC3265 Specific Event Notification	Supported	Packages supported: KPML, Presence.
RFC3311 SIP UPDATE Method	Supported	
RFC 3515 SIP REFER Method	Partially supported	SIP Trunk accepts inbound REFER's (in-dialog and out-of-dialog). In this release CCM only supports method = INVITE in the Refer-To header. CCM does not support multiple Refer requests within the same dialog.
RFC3842 SIP MWI Package	Partially supported	SIP Trunk supports unsolicited NOTIFY events. It does not Subscribe for MWI events notification.
RFC3856 SIP PRESENCE Event Package	Supported	
RFC3859 Common Profile for Presence	Supported	
RFC3863 Presence Information Data Format	Supported	
RFC3891 SIP Replaces Header	Supported	INVITE w/Replaces and REFER w/Replaces.
RFC 4028 Session Timers in the SIP	Supported	For outgoing Invite's, the SIP Trunk indicates the support via Supported header. For incoming Invite's it accepts the Supported and Session-Expires headers.
RFC 3903 SIP PUBLISH Method	Partially supported	SIP Trunk only supports outbound PUBLISH. Inbound PUBLISH is rejected with 405.
RFC 4480 RPID	Supported	RPID information is carried in the outbound messages if selected via SIP Trunk configuration.
Draft-ietf-sipping-kpml-07.txt	Supported	KPML Event Package (for OOB DTMF).
Draft-ietf-sip-privacy-05.txt	Supported	Remote Party ID (RPID) Header.
Draft-levy-sip-diversion-08.txt	Supported	Draft-levy-sip-diversion-08.txt.

CISCO CONFIDENTIAL**Table 1-1 SIP Trunk RFC Compliance (continued)**

RFC	Call Manager Supported	Comments
RFC 3323	Supported	A Privacy Mechanism for SIP.
RFC 3324	Supported	Short Term Requirements for Network Asserted Identity.
RFC 3325	Supported	Private Extensions to the Session Initiation Protocol (SIP) for Asserted Identity within Trusted Networks.
RFC4411	Supported	SIP Trunk supports extending Reason header for Preemption Events.
RFC4412	Partially supported	SIP Trunk only supports outbound Resource-Priority header. A Resource-Priority header is added and will show up in "Require" header field when used.
RFC4040	Supported	A clear channel codec negotiation for SIP Trunk.
RFC4091	Supported	Alternative Network Address Types for advertising both IPv4 and IPv6 media in the SDP.
RFC 4092	Supported	Usage of the Session Description Protocol (SDP) Alternative Network Address Types (ANAT) Semantics in the Session Initiation Protocol (SIP).
RFC 3388	Partially supported	SIP Trunk only supports sections pertaining to grouping of M Lines for ANAT.
RFC 3693	Partially supported	As part of Logical Partitioning feature, CUCM supports Geopriv Location Object specification described in this RFC.
RFC 4119	Partially supported	Extension to RFC3693. CUCM supports PIDF-LO specification as described in RFC 4119.

CISCO CONFIDENTIAL**Table 1-1 SIP Trunk RFC Compliance (continued)**

RFC	Call Manager Supported	Comments
draft-ietf-sip-location-conveyance-10	Partially supported	CUCM supports Location Conveyance specification described in this ietf draft.
RFC 3312	Partially supported	End to End qos is supported but Segmented qos is not supported.
RFC 4032	Partially supported	Extension to RFC3312, CUCM supports changing precondition strength based on target changes.

This document identifies the SIP trunk compliance for SIP messages and headers, as described in [Table 1-2](#) through [Table 1-8](#).

Table 1-2 Compliance to SIP Requests

SIP Message	OL-20951-01 Supported	Comments
INVITE	Yes	The system also supports re-INVITE.
ACK	Yes	
OPTIONS	No	OL-20951-01 SIP trunk does not support the OPTIONS method.
INFO	Yes	INFO method gets used for video support.
BYE	Yes	
CANCEL	Yes	
SUBSCRIBE	Yes	Supported events: kpml, presence
NOTIFY	Yes	Supported events: kpml, presence In addition, OL-20951-01 supports unsolicited NOTIFY for DTMF and MWI.
REFER	Yes	OL-20951-01 SIP trunk supports inbound REFER only, both in dialog and out of dialog.
REGISTER	No	The system sends 405 Method Not Allowed for OL-20951-01 SIP trunk.
PRACK	Yes	The system provides three options: • To send PRACK for Only 180 w/sdp, or • for all 18x messages, or • To disable PRACK entirely via CCM Service Parameter
UPDATE	Yes	OL-20951-01 supports receiving and generating UPDATE.
PUBLISH	Yes	OL-20951-01 supports only generating PUBLISH.

CISCO CONFIDENTIAL**Table 1-3 Compliance to SIP Responses**

SIP Message	OL-20951-01 Supported	Comment
1xx Response	Yes	
100 Trying	Yes	
180 Ringing	Yes	The system supports early media.
181 Call Forward	No	OL-20951-01 sends 181 Call forwarded response when the call forward feature is invoked.
182 Queued	No	Stack drops this message.
183 Progress	Yes	The system supports early media.
2xx Response	Yes	
200 OK	Yes	
202 OK	Yes	For REFER
3xx Response	Yes	
300–302, 305, 380, 385	Yes	The system does not generate these messages, but contacts the new address in Contact header upon receiving.
4xx Response	Yes	Upon receiving, the system initiates a graceful call disconnect.
401	Yes	OL-20951-01 SIP trunk sends out 401 (Unauthorized) if authentication and authorization is enabled. OL-20951-01 SIP trunk also responds to inbound 401 challenges.
403	Yes	OL-20951-01 SIP trunk sends a 403 (Forbidden) message if a SIP method is on the Access Control List.
405	Yes	OL-20951-01 SIP trunk sends a 405 message if the incoming SIP message is not supported.
407	Yes	OL-20951-01 SIP trunk responds to inbound 407 (Proxy Authentication Required) message challenges.
412	Yes	OL-20951-01 SIP trunk processes 412 response for PUBLISH.
415	Yes	OL-20951-01 SIP Trunk sends out 415 (Unsupported Media Type) message when it does not support the media type received in incoming request's SDP.
420	Yes	OL-20951-01 SIP Trunk sends out 420 (Bad Extension) message when it receives sdp-anat tag in the Require/Supported header and it is not configured for ANAT.

CISCO CONFIDENTIAL**Table 1-3 Compliance to SIP Responses (continued)**

SIP Message	OL-20951-01 Supported	Comment
424	Yes	OL-20951-01 SIP Trunk sends out 424 (Bad Location Information) message when it receives INVITE requests carrying Location Conveyance info with errors against SIP compliance like: • Geolocation Headers indicate inclusion of PIDF-LO, but message body doesn't carry it. • Geolocation header has a cid header referring to a URI for which there is no corresponding Content-ID header with the same URI. • Geolocation header having URI other than cid header e.g SIP or SIPs URI for LbyR.
5xx Response	Yes	Upon receiving, the system sends a new request if additional address is present. Otherwise, it initiates a graceful disconnect.
580	Yes	CUCM get INVITE with precondition and its local RSVP layer sends reject because the bandwidth is not available, then CUCM responds with 580 Precondition Failed. Upon receiving the 580 response, CUCM will either continue the call with no RSVP involved or call fails based on local RSVP policy configuration.
6xx Response	Yes	The system does not generate this response; upon receiving, the system initiates a graceful disconnect.

Table 1-4 SIP Header Fields

SIP Header	OL-20951-01 Supported	Comments
Accept	No	
Accept-Encoding	No	
Accept-Language	No	
Alert-Info	No	
Allow	Yes	
Authentication-Info	No	
Authorization	Yes	
Allow-Events	Yes	kpml, presence

CISCO CONFIDENTIAL**Table 1-4 SIP Header Fields (continued)**

SIP Header	OL-20951-01 Supported	Comments
Call-Info	Yes	Call-Info is used to transmit the overall security level of the trunk call. For example: Call-Info: <urn:x-cisco-remotecc:callinfo>; security=NotAuthenticated Call-Info header is also used for figuring out the IP address of the originating device for SIP trunk identification, if it contains the tag, purpose=x-cisco-origIP. For example: Call-Info: <sip:172.18.200.127>; PURPOSE=x-cisco-origIP
Call-ID	Yes	
Contact	Yes	
Content-Disposition	No	
Content-Encoding	No	
Content-Language	No	
Content-Length	Yes	
Content-Type	Yes	Supported as: "sdp", "kpml-request+xml", "media_control+xml", "text/plain", "pdf+xml", and "simple-message-summary" The system does not support "multipart."
CSeq	Yes	
Date	Yes	
Diversion	Yes	The system uses this header for RDNIS information. If it is present, it is always the Original Called Party information. The receiving side of this header always assumes that it is the Original Called Party information if present. In case of chained-forwarding to a voice messaging system, the system leaves the message to the Original Called Party.
Encryption	No	
Error-Info	No	
Expires	Yes	
Event	Yes	
From	Yes	OL-20951-01 adds x-nearend, x-farend, x-refCI and x-devicename parameters for Monitoring and Recording INVITEs.
Geolocation	Yes	OL-20951-01 supports this header as part of Logical Partitioning feature.
Geolocation-Error	Yes	OL-20951-01 supports this header as part of Logical Partitioning feature. This is an informatory header which is sent in SIP response messages.
Hide	No	

CISCO CONFIDENTIAL**Table 1-4 SIP Header Fields (continued)**

SIP Header	OL-20951-01 Supported	Comments
In-Reply-To	No	
Max-Forwards	Yes	OL-20951-01 sets to 70 for outgoing INVITE and does not increment/decrement it.
Min-Expires	Yes	
MIME-Version	No	
Organization	No	
Priority	No	
Proxy-Authenticate	Yes	OL-20951-01 SIP trunk supports receiving this header in 407 responses.
Proxy-Authorization	Yes	OL-20951-01 SIP trunk supports sending new request with this header after receiving 407 responses.
Proxy-Require	No	
P-Asserted-Identity	Yes	
P-Preferred-Identity	Yes	
RAck	Yes	
Record-Route	Yes	
Remote-Party-ID	Yes	The system uses this header for ID services including Connected Name and ID. This is a non-standard header from a draft specification.
Replaces	Yes	For INVITE and REFER.
Require	Yes	
Response-Key	No	
Retry-After	Yes	The system sends it but ignores receiving it.
Resource-Priority	Yes	
Route	Yes	
RSeq	Yes	
Server	Yes	
SIP-If-Match	Yes	For PUBLISH
SIP-Etag	Yes	For PUBLISH
Subject	No	
Supported	Yes	
Subscription-State	Yes	
Timestamp	Yes	
To	Yes	
Unsupported	Yes	
User-Agent	Yes	
Via	Yes	

CISCO CONFIDENTIAL**Table 1-4 SIP Header Fields (continued)**

SIP Header	OL-20951-01 Supported	Comments
Warning	Yes	
WWW-Authenticate	Yes	

Table 1-5 Supported Audio Media Types

Type	Encoding Name	Payload Type	Comments
G.711 u-law	PCMU	0	
GSM Full-rate	GSM	3	
G.723.1	G723	4	
G.711 A-law	PCMA	8	
G.722	G722	9	
G.728	G728	15	
G.729	G729	18	The system supports all combinations of annex A and B.
AAC	mpeg4-generic	Dynamically Assigned	Acceptable range is 96–127.
ILBC	iLBC	Dynamically Assigned	Acceptable range is 96–127.
RFC2833 DTMF	Telephony-event	Dynamically Assigned	Acceptable range is 96–127.
G.Clear	G.Clear	Dynamically Assigned	Acceptable range is 96–127. OL-20951-01 default is 125.
iSAC	iSAC	Dynamically Assigned	Acceptable range is 96–127.

Table 1-6 Supported Video Media Types

Types	Encoding Name	Payload Type
H.261	H261	31
H.263	H263	34
H.263+	H263-1998	Acceptable range is 96–127.
H.263++	H263-2000	Acceptable range is 96–127.
H.264	H264	Acceptable range is 96–127.

Table 1-7 Supported Application Media Type

Types	Encoding Name	Payload Type
H.224 FECC	H224	Acceptable range is 96–127

CISCO CONFIDENTIAL**Table 1-8 Supported T38fax Payload Type**

Types	Encoding Name	Payload Type
T38fax	Not applied	Not applied

SIP Message Fields

The SIP trunk supports SIP request and SIP response messages. The request messages include INVITE, ACK, OPTIONS, BYE, CANCEL, PRACK, SUBSCRIBE, UPDATE, and REFER methods. The response message consists of a status-line with various status codes (1xx, 2xx, 3xx, 4xx, 5xx and 6xx). The SIP trunk supports all mandatory fields from the SIP standard. See [Table 1-9](#) through [Table 1-23](#).

Request Messages

INVITE

Table 1-9 INVITE Message Fields

Field	Example	Notes
Request-Line	<pre>INVITE sip:cdpn@destIP:destPort; phone-context=cisco.com; tgrp=ccdata;user=phone SIP/2.0</pre>	destIP=resolved IP address of configured DestAddr under SIPTrunk; it also could be FQDN SRV instead of destIP. If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV. cgpn for outgoing INVITE, and cdpn for incoming INVITE. “phone-context=cisco.com; tgrp=ccdata;”= When MTP is not enabled and the G.Clear feature is enabled, these tags are added to the Request URI. Both of these values are user provisionable.

CISCO CONFIDENTIAL**Table 1-9 INVITE Message Fields (continued)**

Field	Example	Notes
From	From: "callerName" <sip:cgpn@CCM_IP_addr>; x-nearend; x-farend; x-refCI=CI_NUMBER; x-devicename=SEP_NAME	callerName = caller display i.e. IP phone Cgpn = calling party number CCM_IP_addr = CCM IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate OL-20951-01 IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. x-nearend = Recorded party is the near-end. x-farend = Recorded party is the far-end x-refCI = OL-20951-01 call identifier for recorded party x-devicename = Device name of recorded party.
To	To: "calledName" <sip:cdpn@destIP;user=phone>	The system includes calledName if available. destIP=resolved IP address of configured DestAddr/DestV6Addr under SIPTrunk; it could also be FQDN SRV instead of destIP.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr = Cisco Unified CM IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port = CCM Port Branch = Unique number
Call-ID	Call-ID: number@CCM_IP_addr	OL-20951-01 generates the number internally.
Contact	Contact: <sip:cgpn@CCM_IP_addr:localPort;user=phone>	localPort = configured "Incoming port" of the indicated SIPTrunk
Cseq	Cseq:number method	Number = a traditional sequence number that is incremented for each new request within a dialog Method = INVITE
Max-Forwards	Max-Forwards:number	Number = Max-Forwards serves to limit the number of hops a request can make on the way to its destination. It consists of an integer that is decremented by one at each hop by sip proxy. CCM sets it 6 for outgoing INVITE.

CISCO CONFIDENTIAL**Table 1-9 INVITE Message Fields (continued)**

Field	Example	Notes
Remote-Party-Id	IPv4 Example Remote-Party-ID: "Alice Smith" <sip:9728135111@161.44.147.67;user=phone>; party=calling;screen=no;privacy=off IPv6 Example Remote-Party-ID: "Alice Smith" <sip:9728135111@[2001:db8:1:101::12];user=p hone>; party=calling;screen=no;privacy=off	OL-20951-01 uses this SIP extension for more detailed description of Caller Identify and Privacy. It is also used to convey Connected Name and ID in a re-Invite message.
Diversion	IPv4 Example Diversion: <sip:23222@172.18.193.123>;reason=no-answer IPv6 Example Diversion:<sip:23222@[2001:db8:1:101::12]>; reason=no-answer	OL-20951-01 uses Diversion header to carry RDNIS. In this case, 23222 will be carried as the Original Called Party ID.
Call-Info	IPv4 Example Call-Info: <sip:172.18.199.211>;purpose=x-cisco-origIP IPv6 Example Call-Info: <sip:[2001:db8:1:101::12]>;purpose=x-cisco- origIP	If this header is present in an incoming INVITE with the tag, purpose=x-cisco-origIP, and the trunk is configured to route the call based on the end device's IP Address, then this header will be used to route the call to the Trunk pointing to the IP Address in the Call-Info header.
P-Asserted-Identity	IPv4 Example P-Asserted-Identity: "Alice" <sip:4762424@172.18.199.211> IPv6 Example P-Asserted-Identity: "Alice" <sip:4762424@[2001:db8:1:101::12]>	OL-20951-01 uses this header to convey caller name/number information. In the re-Invite message, it is used to convey the connected name/number. OL-20951-01 adds the PAI header if the SIP trunk is configured with Asserted-Type=PAI or Asserted-Type=Default and the call control in OL-20951-01 provides the screening indication of UserProvided "VerifiedAndPassed" or NetworkProvided. PAI header values are displayed per the user configuration.

CISCO CONFIDENTIAL**Table 1-9 INVITE Message Fields (continued)**

Field	Example	Notes
P-Preferred-Identity	IPv4 Example P-Preferred-Identity: "Alice" <sip:4762424@172.18.199.211> IPv6 Example P-Preferred-Identity: "Alice" <sip:4762424@[2001:db8:1:101::12]>	OL-20951-01 uses this header to convey caller name/number information. In the re-Invite message, it is used to convey the connected name/number. OL-20951-01 adds the PAI header if the SIP trunk is configured with Asserted-Type=PPI or Asserted-Type=Default and when the call control in OL-20951-01 provides the screening indication of "Not Screened" or "VerifiedAndFailed" values. PPI header values are displayed as per the user configuration.
Resource-Priority	Resource-Priority: DRSN.9	If the MLPP feature is enabled, the Resource-Priority header is added to the initial INVITE.
Supported	Supported: option-tag Example: Supported: 100rel,timer,resource-priority,replaces	OL-20951-01 adds Supported header in outgoing INVITE request when additional options like PRACK, Presence, Resource-Priority etc. are configured to indicate other side about OL-20951-01's capability.
Geolocation	Geolocation: cid-url;inserted-by=hostport Example: Geolocation: <cid:4900@10.10.10.10>;inserted-by="10.10.10.10"	SIP Trunk only supports sending and processing of cid-url in Geolocation header, though specification allows SIP, SIPS & pres URI's.

CISCO CONFIDENTIAL**Table 1-9 INVITE Message Fields (continued)**

Field	Example	Notes
SDP	IPv4 SDP <pre>v=0 o=CiscoSystemsCCM-SIP 2000 1000 IN IP4 10.89.79.203 s=SIP Call c=IN IP4 10.89.79.203 t=0 0 m=audio 32314 RTP/AVP 0 101 a=rtpmap:0 PCMU/8000 a=ptime:20 a=rtpmap:101 telephone-event/8000 a=fmtp:101 0-15 m=audio 16604 RTP/AVP 125 a=rtpmap:125 CLEARMODE/8000</pre> IPv6 SDP <pre>v=0 o=CiscoSystemsCCM-SIP 2000 1000 IN IP6 2001:db8:c18:1:21c:58ff:fe2a:23f8 s=SIP Call c=IN IP6 2001:db8:c18:1:21c:58ff:fe2a:23f3 t=0 0 m=audio 32314 RTP/AVP 0 101 a=rtpmap:0 PCMU/8000 a=ptime:20 a=rtpmap:101 telephone-event/8000 a=fmtp:101 0-15</pre> ANAT SDP with both IPv4 and IPv6 addresses <pre>v=0 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 172.18.199.129 s=SIP Call t=0 0 a=group:ANAT 1 2 m=audio 18484 RTP/AVP 0 101 c=IN IP6 2001:db8:c18:1:21c:58ff:fe2a:23f8 a=rtpmap:0 PCMU/8000 a=ptime:20 a=rtpmap:101 telephone-event/8000 a=fmtp:101 0-15 a=mid:1 m=audio 18282 RTP/AVP 0 101 c=IN IP4 172.18.199.55 a=rtpmap:0 PCMU/8000 a=ptime:20 a=rtpmap:101 telephone-event/8000 a=fmtp:101 0-15 a=mid:2</pre>	If MTP is not enabled for the SIP trunk, SDP is not in the initial INVITE. If MTP is enabled, OL-20951-01 always include telephone-event for RFC2833 DTMF in the SDP. This dynamic payload type is configurable under OL-20951-01 Service Parameter with default value as 101. For a SIP Trunk in IPv4 only mode, the SDP will contain the IPv4 address of the MTP device For a SIP Trunk in IPv6 only mode, the SDP will contain the IPv6 address of the MTP device For a Dual Mode SIP Trunk, if ANAT is enabled then, the SDP will contain both the IPv4 address, and the IPv6 address using the ANAT format. If MTP is enabled and G.Clear feature is enabled, CCM sends G.Clear mode information in the SDP in the initial INVITE.

CISCO CONFIDENTIAL**ACK****Table 1-10 ACK Message Fields**

Field	Example	Notes
Request-Line	ACK sip:cdpn@destIP:destPort;SIP/2.0	destIP = resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV.
From	From: "callerName" <sip:cgpn@CCM_IP_addr>	callerName=caller display i.e. IP phone Cgpn = calling party number CCM_IP_addr=CCM IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets.
To	To: "calledName"<sip:cdpn@destIP;user=phone>	calledName is included if available destIP=resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr=CCM IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port=CCM Port Branch=Unique number
Call-ID	Call-ID: number@CCM IP addr	OL-20951-01 generates this number internally.
CSeq	Cseq: number method	Number=a traditional sequence number that is incremented for each new request within a dialog Method=ACK
Max-Forwards	Max-Forwards:number	Number= Max-Forwards serves to limit the number of hops a request can make on the way to its destination. It consists of an integer that is decremented by one at each hop.

CISCO CONFIDENTIAL**BYE****Table 1-11 BYE Message Fields**

Field	Example	Notes
Request-Line	BYE sip:cdpn@destIP:destPort;SIP/2.0	destIP = resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk, it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV;
From	From: "callerName" <sip:cgpn@CCM_IP_addr>	callerName=caller display i.e. IP phone Cgpn = calling party number CCM_IP_addr=OL-20951-01 IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate OL-20951-01 IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets.
To	To: "calledName"<sip:cdpn@destIP;user=phone>	calledName is included if available destIP=resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr=OL-20951-01 IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate OL-20951-01 IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port=CCM Port Branch=Unique number
Call-ID	Call-ID: number@CCM IP addr	OL-20951-01 generates the number internally.
CSeq	Cseq: number method	Number=a traditional sequence number that is incremented for each new request within a dialog Method=BYE
Max-Forwards	Max-Forwards:number	Number = Max-Forwards serves to limit the number of hops a request can make on the way to its destination. It consists of an integer that is decremented by one at each hop

CISCO CONFIDENTIAL**Table 1-11** *BYE Message Fields (continued)*

Field	Example	Notes
Reason	Reason: preemption;cause=<cause value>;text=<text string>	Reason header is included when MLPP feature is enabled. Cause value and test string are defined as per RFC4411.

CANCEL**Table 1-12** *CANCEL Message Fields*

Field	Example	Notes
Request-Line	CANCEL sip:cdpn@destIP:destPort;SIP/2.0	destIP = resolved IP address of configured DestAddr/DestAddrV6 under SIPTrunk, it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV.
From	From: "callerName" <sip:cgn@CCM_IP_addr>	callerName=caller display i.e. IP phone Cgn = calling party number CCM_IP_addr=OL-20951-01 IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate OL-20951-01 IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets.
To	To: "calledName" <sip:cdpn@destIP;user=phone>	calledName is included if available destIP=resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr=OL-20951-01 IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port=OL-20951-01 Port Branch=Unique number
Call-ID	Call-ID: number@CCM IP addr	OL-20951-01 generates the number internally.

CISCO CONFIDENTIAL**Table 1-12 CANCEL Message Fields (continued)**

Field	Example	Notes
CSeq	Cseq: number method	Number=a traditional sequence number that is incremented for each new request within a dialog Method=CANCEL
Max-Forwards	Max-Forwards:number	Number= Max-Forwards serves to limit the number of hops a request can make on the way to its destination. It consists of an integer that is decremented by one at each hop

PRACK**Table 1-13 PRACK Message Fields**

Field	Example	Notes
Request-Line	PRACK sip:cdpn@destIP:destPort;SIP/2.0	destIP = resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk, it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV;
From	From: "callerName" <sip:cgpn@CCM_IP_addr>	callerName=caller display i.e. IP phone Cgpn = calling party number CCM_IP_addr=CCM IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets.
To	To: "calledName"<sip:cdpn@destIP;user=phone>	calledName is included if available destIP=resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr=CCM IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port=CCM Port Branch=Unique number
Call-ID	Call-ID: number@CCM IP addr	OL-20951-01 generates the number internally.

CISCO CONFIDENTIAL**Table 1-13 PRACK Message Fields (continued)**

Field	Example	Notes
CSeq	Cseq: number PRACK	Number=a traditional sequence number that is incremented for each new request within a dialog Method=Method Name
Rack	Rack:number1 number2	Number1=value from the RSeq header in the provisional response that is being acknowledged Number2=The next number, and the method, are copied from the CSeq in the response that is being acknowledged.

UPDATE**Table 1-14 UPDATE Message Fields**

Field	Example	Notes
Request-Line	UPDATE sip:cdpn@destIP:destPort;user=phone SIP/2.0	destIP = resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk, it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV;
From	From: "callerName" <sip:cgpn@CCM_IP_addr>	callerName=caller display i.e. IP phone Cgpn = calling party number CCM_IP_addr=CCM IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets.
To	To: "calledName"<sip:cdpn@destIP;user=phone>	calledName is included if available destIP=resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr=CCM IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port=CCM Port Branch=Unique number

CISCO CONFIDENTIAL**Table 1-14** **UPDATE Message Fields (continued)**

Field	Example	Notes
Call-ID	Call-ID: number@CCM IP addr	OL-20951-01 generates the number internally.
Contact	Contact: <sip:cgpn@CCM_IP_addr:localPort;user=phone>	localPort = configured "Incoming port" of the indicated SIPTrunk
Cseq	Cseq:number method	Number=a traditional sequence number that is incremented for each new request within a dialog Method=UPDATE
Max-Forwards	Max-Forwards:number	Number= Max-Forwards serves to limit the number of hops a request can make on the way to its destination. It consists of an integer that is decremented by one at each hop
Remote-Party-Id	IPv4 Example Remote-Party-ID:"Alice Smith" <sip:9728135111@161.44.147.67;user=phone>; party=calling;screen=no;privacy=off IPv6 Example Remote-Party-ID:"Alice Smith" <sip:9728135111@[2001:db8:1:101::12];user=phone>; party=calling;screen=no;privacy=off	OL-20951-01 uses this SIP extension for more detailed description of Caller Identify and Privacy. It is also used to convey Connected Name & ID in a re-Invite message.
P-Asserted-Identity	IPv4 Example P-Asserted-Identity: "Alice" <sip:4762424@172.18.199.211> IPv6 Example P-Asserted-Identity: "Alice" <sip:4762424@[2001:db8:1:101::12]>	OL-20951-01 uses this header for conveying the Connected Name/Number. OL-20951-01 adds the PAI header, if SIP Trunk is configured with Asserted-Type=PAI or Asserted-Type=Default and when the call control in Cisco Unified CM provides the screening indication of UserProvided "VerifiedAndPassed" or NetworkProvided..
P-Preferred-Identity	IPv4 Example P-Preferred-Identity: "Alice" <sip:4762424@172.18.199.211> IPv6 Example P-Preferred-Identity: "Alice" <sip:4762424@[2001:db8:1:101::12]>	OL-20951-01 uses this header for conveying the Connected Name/Number. OL-20951-01 adds the PPI header, if SIP Trunk is configured with Asserted-Type=PPI or Asserted-Type=Default and when the call control in Cisco Unified CM provides the screening indication of "Not Screened" or "VerifiedAndFailed" values. PPI header values are displayed as per the user configuration.
Resource-Priority	Resource-Priority: DRSN.9	If the MLPP feature is enabled, Resource-Priority header is added to the UPDATE message.
Geolocation	Geolocation: cid-url;inserted-by=hostport Example: Geolocation: <cid:4900@10.10.10.10>;inserted-by="10.10.10.10	SIP Trunk only supports sending and processing of cid-url in Geolocation header, though specification allows SIP, SIPS & pres URI's.

CISCO CONFIDENTIAL**SUBSCRIBE****Table 1-15 SUBSCRIBE Message Fields**

Field	Example	Notes
Request-Line	SUBSCRIBE sip:subscriber@destIP:destPort SIP/2.0	destIP = resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk, it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV;
From	From: "callerName" <sip:cgpn@CCM_IP_addr>	callerName=caller display i.e. IP phone Cgpn = calling party number CCM_IP_addr=CCM IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets.
To	To: "calledName"<sip:cdpn@destIP>	calledName is included if available destIP=resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr=CCM IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port=CCM Port Branch=Unique number
Call-ID	Call-ID: number@CCM IP addr	OL-20951-01 generates the number internally.
Contact	Contact: <sip:cgpn@CCM_IP_addr:localPort>	localPort = configured "Incoming port" of the indicated SIPTrunk
Cseq	Cseq:number method	Number=a traditional sequence number that is incremented for each new request within a dialog Method=SUBSCRIBE
Expires	Expires: number	Number = The duration of the subscription, in seconds.
Max-Forwards	Max-Forwards:number	Number= Max-Forwards serves to limit the number of hops a request can make on the way to its destination. It consists of an integer that is decremented by one at each hop by sip proxy.

CISCO CONFIDENTIAL**Table 1-15 SUBSCRIBE Message Fields (continued)**

Event:	kpml, presence	The Event Type that the Subscribe if for. Unified CM supports kpml and presence event packages.
Content-Type:	application/kpml-request+xml or message/sipfrag;version=2.0	Unified CM SIP Trunk supports message/sipfrag;version=2.0, application/kpml-request+xml and application/pdf+xml

NOTIFY**Table 1-16 NOTIFY Message Fields**

Field	Example	Notes
Request-Line	NOTIFY sip:subscriber@destIP:destPort SIP/2.0	destIP = resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk, it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV;
From	From: "callerName" <sip:cgpn@CCM_IP_addr>	callerName=caller display i.e. IP phone Cgpn = calling party number CCM_IP_addr=CCM IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used). If the address is an IPv6 address then it will be specified within [] square brackets.
To	To: "calledName"<sip:cdpn@destIP>	calledName is included if available destIP=resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP. If the address is an IPv6 address then it will be specified within [] square brackets.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr=CCM IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate CCM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port=CCM Port Branch=Unique number
Call-ID	Call-ID: number@CCM IP addr	Number is generated internally by OL-20951-01.
Contact	Contact: <sip:cgpn@CCM_IP_addr:localPort>	localPort = configured "Incoming port" of the indicated SIPTrunk.

CISCO CONFIDENTIAL**Table 1-16 NOTIFY Message Fields (continued)**

Field	Example	Notes
Cseq	Cseq:number method	Number=a traditional sequence number that is incremented for each new request within a dialog Method=NOTIFY
Subscription-State:	Subscription-State:state-value; expires=number	State-value=active pending terminated Expires= authoritative subscription duration.
Max-Forwards	Max-Forwards:number	Number= Max-Forwards serves to limit the number of hops a request can make on the way to its destination. It consists of an integer that is decremented by one at each hop by SIP proxy.
Event	kpml, presence	The Event Type that the Subscribe if for. OL-20951-01 supports kpml and presence event packages.
Content-Type:	application/kpml-request+xml or message/sipfrag;version=2.0	OL-20951-01 SIP Trunk supports message/sipfrag;version=2.0, application/kpml-request+xml and application/pidf+xml

PUBLISH**Table 1-17 PUBLISH Message Fields**

Field	Example	Notes
Request-Line	PUBLISH sip:user@destIP:destPort SIP/2.0	user=end user name associated with a line appearance; destIP = resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk, it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets. destPort=configured destPort or resolved port from DNS SRV;
From	From: <sip:user@CCM_IP_addr>	user=end user name associated with a line appearance; CCM_IP_addr=Cisco Unified CM IP address (Depending on if this is a IPv4 or an IPv6 call, the appropriate Cisco Unified CM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets.

CISCO CONFIDENTIAL**Table 1-17 PUBLISH Message Fields (continued)**

Field	Example	Notes
To	To: <sip:user@destIP>	user=end user name associated with a line appearance; destIP=resolved IP address of configured DestAddr/DestAddrIPv6 under SIPTrunk; it could also be FQDN SRV instead of destIP; If the address is an IPv6 address then it will be specified within [] square brackets.
Via	Via:SIP/2.0 IP addr:Port;Branch=number	IP addr=Cisco Unified CM IP (Depending on if this is a IPv4 or an IPv6 call, the appropriate Cisco Unified CM IP Address will be used) If the address is an IPv6 address then it will be specified within [] square brackets. Port=Cisco Unified CM Port Branch=Unique number
Call-ID	Call-ID: number@CCM IP addr	OL-20951-01 generates the number internally.
Cseq	Cseq:number method	Number=a traditional sequence number that is incremented for each new request within a dialog Method=PUBLISH
Max-Forwards	Max-Forwards:number	Number= Max-Forwards serves to limit the number of hops a request can make on the way to its destination. It consists of an integer that is decremented by one at each hop by sip proxy.
Event	presence	OL-20951-01 supports presence event for PUBLISH.
Expires	Expires: number	number=suggested expiration time for PUBLISH in seconds. Default is 3600.
Content-Type:	application/pidf+xml	

CISCO CONFIDENTIAL**Response Messages****18x****Table 1-18 18X Message Fields**

Field	Example	Notes
Remote-Party-Id	IPv4 Example <pre>Remote-Party-ID: "Bob Jones" <sip:9728135111@161.44.147.67;user=phone>; party=called;screen=no;privacy=off</pre> IPv6 Example <pre>Remote-Party-ID: "Bob Jones" <sip:9728135111@[2001:db8:1:101::12];user=p hone>; party=called;screen=no;privacy=off</pre>	OL-20951-01 uses this SIP extension to convey Connected Name and ID information.
P-Asserted-Identity	IPv4 Example <pre>P-Asserted-Identity: "Alice" <sip:4762424@172.18.199.211></pre> IPv6 Example <pre>P-Asserted-Identity: "Alice" <sip:4762424@[2001:db8:1:101::12]></pre>	OL-20951-01 uses this header for conveying the Alerting Name/Number. OL-20951-01 adds the PAI header, if SIP Trunk is configured with Asserted-Type=PAI or Asserted-Type=Default and when the call control in OL-20951-01 provides the screening indication of UserProvided "VerifiedAndPassed" or NetworkProvided. PAI header values are displayed as per the user configuration.
P-Preferred-Identity	IPv4 Example <pre>P-Preferred-Identity: "Alice" <sip: 4762424@172.18.199.211></pre> IPv6 Example <pre>P-Preferred-Identity: "Alice" <sip: 4762424@[2001:db8:1:101::12]></pre>	OL-20951-01 uses this header for conveying the Alerting Name/Number. OL-20951-01 adds the PPI header, if SIP Trunk is configured with Asserted-Type=PPI or Asserted-Type=Default and when the call control in OL-20951-01 provides the screening indication of "Not Screened" or "VerifiedAndFailed" values. PPI header values are displayed as per the user configuration.
SDP	<pre>m=audio 30844 RTP/AVP 0 101 a=rtpmap:0 pcmu/8000 a=rtpmap:101 telephone-event/8000 a=fmtp:101 0-11</pre>	If a call resulted in early media setup (that is, a SIP to MGCP PRI call), OL-20951-01 includes SDP answer in 183 message.

CISCO CONFIDENTIAL**2xx****Table 1-19 2XX Message Fields**

Field	Example	Notes
Remote-Party-Id	IPv4 Example Remote-Party-ID: "Bob Jones" <sip:9728135111@161.44.147.67;user=phone;> party=called;screen=no;privacy=off IPv6 Example Remote-Party-ID: "Bob Jones" <sip:9728135111@[2001:db8:1:101::12];user=p hone>; party=called;screen=no;privacy=off	OL-20951-01 uses this SIP extension to convey Connected Name and ID information.
P-Asserted-Identity	IPv4 Example P-Asserted-Identity: "Alice" <sip:4762424@172.18.199.211> IPv6 Example P-Asserted-Identity: "Alice" <sip:4762424@[2001:db8:1:101::12]>	OL-20951-01 uses this header for conveying the Connected Name/Number. OL-20951-01 adds the PAI header, if SIP Trunk is configured with Asserted-Type=PAI or Asserted-Type=Default and when the call control in OL-20951-01 provides the screening indication of UserProvided "VerifiedAndPassed" or NetworkProvided. PAI header values are displayed as per the user configuration.
P-Preferred-Identity	IPv4 Example P-Preferred-Identity: "Alice" <sip: 4762424@172.18.199.211> IPv6 Example P-Preferred-Identity: "Alice" <sip: 4762424@[2001:db8:1:101::12]>	OL-20951-01 uses this header for conveying the Connected Name/Number. OL-20951-01 adds the PPI header, if SIP Trunk is configured with Asserted-Type=PPI or Asserted-Type=Default and when the call control in OL-20951-01 provides the screening indication of "Not Screened" or "VerifiedAndFailed" values. PPI header values are displayed as per the user configuration.

3xx

3xx responses give information about the new user location or about alternative services that might be able to satisfy the call.

Table 1-20 3XX Message Fields

Field	Example	Notes
Status Code	SIP/2.0 302 Moved Temporarily	The requesting client SHOULD retry the request at the new address(es) given by the Contact header field.

CISCO CONFIDENTIAL**Table 1-20 3XX Message Fields (continued)**

Field	Example	Notes
From	IPv4 Example From: <sip: 1101@10.89.79.203>;tag=16777234 IPv6 Example From: <sip: 1101@[2001:db8:1:101::12]>;tag=16777234	10.89.79.203 is CCM IPv4 address 2001:db8:1:101::12 is CCM IPv6 Address 16777234 is the Call Id
To	IPv4 Example To: <sip:30000@10.89.73.75>;tag=0002fd06e930010 8228d58c1-614f99be IPv6 Example To: <sip:30000@ [2001:db8:1:2::12]>;tag=0002fd06e9300108228 d58c1-614f99be	3000 is the Calling Party Number
Via	IPv4 Example Via: SIP/2.0/TCP 10.89.79.203:5060;received=10.89.79.203;bra nch=z9hG4bKfe8d27ec IPv6 Example Via: SIP/2.0/TCP [2001:db8:1:101::12]:5060;branch=z9hG4bKfe8 d27ec	10.89.79.203=CCM IPv4 Address 2001:db8:1:101::12 is CCM IPv6 Address 5060=CCM Port Branch=Unique number
Contact	IPv4 Example Contact: <sip:30000@10.8.69.115:5060> IPv6 Example Contact: <sip:30000@[2001:db8:1:101::12]:5060>	localPort = configured "Incoming port" of the indicated SIPTrunk

4xx

4xx responses represent definite failure responses from a particular server.

Table 1-21 4XX Message Fields

Field	Example	Notes
Status Code	SIP/2.0 487 Request Cancelled	The request was terminated by a BYE or CANCEL request.
From	IPv4 Example From: <sip: 1101@10.89.79.203>;tag=16777234 IPv6 Example From: <sip: 1101@[2001:db8:1:101::12]>;tag=16777234	10.89.79.203 is CCM IPv4 address 2001:db8:1:101::12 is CCM IPv6 Address 16777234 is the Call Id

CISCO CONFIDENTIAL**Table 1-21 4XX Message Fields (continued)**

Field	Example	Notes
To	IPv4 Example To: <sip:30000@10.89.73.75>;tag=0002fd06e9300108228d58c1-614f99be IPv6 Example To: <sip:30000@[2001:db8:1:2::12]>;tag=0002fd06e9300108228d58c1-614f99be	3000 is the Calling Party Number.
Via	IPv4 Example Via: SIP/2.0/TCP 10.89.79.203:5060;received=10.89.79.203;branch=z9hG4bKfe8d27ec IPv6 Example Via: SIP/2.0/TCP [2001:db8:1:101::12]:5060;branch=z9hG4bKfe8d27ec	10.89.79.203=CCM IPv4 Address 2001:db8:1:101::12 is CCM IPv6 Address 5060=CCM Port Branch=Unique number
Contact	IPv4 Example Contact: <sip:30000@10.8.69.115:5060> IPv6 Example Contact: <sip:30000@[2001:db8:1:101::12]:5060>	localPort = configured "Incoming port" of the indicated SIPTrunk

5xx

The server encountered an unexpected condition that prevented it from fulfilling the request.

Table 1-22 5XX Message Fields

Field	Example	Notes
Status Code	SIP/2.0 501 Not Implemented	This is the appropriate response when a UAS does not recognize the request method
From	IPv4 Example From: <sip: 1101@10.89.79.203>;tag=16777234 IPv6 Example From: <sip: 1101@[2001:db8:1:101::12]>;tag=16777234	10.89.79.203 is CCM IPv4 address 2001:db8:1:101::12 is CCM IPv6 Address 16777234 is the Call Id

CISCO CONFIDENTIAL**Table 1-22 5XX Message Fields (continued)**

Field	Example	Notes
To	IPv4 Example To: <sip:30000@10.89.73.75>;tag=0002fd06e9300108228d58c1-614f99be IPv6 Example To: <sip:30000@[2001:db8:1:2::12]>;tag=0002fd06e9300108228d58c1-614f99be	3000 is the Calling Party Number
Via	IPv4 Example Via: SIP/2.0/TCP 10.89.79.203:5060;received=10.89.79.203;branch=z9hG4bKfe8d27ec IPv6 Example Via: SIP/2.0/TCP [2001:db8:1:101::12]:5060;branch=z9hG4bKfe8d27ec	10.89.79.203=CCM IPv4 Address 2001:db8:1:101::12 is CCM IPv6 Address 5060=CCM Port Branch=Unique number
Contact	IPv4 Example Contact: <sip:30000@10.8.69.115:5060> IPv6 Example Contact: <sip:30000@[2001:db8:1:101::12]:5060>	localPort = configured "Incoming port" of the indicated SIPTrunk

6xx

6xx indicates that the callee end system was contacted successfully but the callee is busy and does not want to take the call at this time.

Table 1-23 6XX Message Fields

Field	Example	Notes
Status Code	SIP/2.0 600 Busy Everywhere	The callee end system was contacted successfully, but the callee is busy and does not want to take the call at this time.
From	IPv4 Example From: <sip: 1101@10.89.79.203>;tag=16777234 IPv6 Example From: <sip: 1101@[2001:db8:1:101::12]>;tag=16777234	10.89.79.203 is CCM IPv4 address 2001:db8:1:101::12 is CCM IPv6 Address 16777234 is the Call Id

CISCO CONFIDENTIAL**Table 1-23 6XX Message Fields (continued)**

Field	Example	Notes
To	IPv4 Example To: <sip:30000@10.89.73.75>;tag=0002fd06e9300108228d58c1-614f99be IPv6 Example To: <sip:30000@[2001:db8:1:2::12]>;tag=0002fd06e9300108228d58c1-614f99be	3000 is the Calling Party Number
Via	IPv4 Example Via: SIP/2.0/TCP 10.89.79.203:5060;received=10.89.79.203;branch=z9hG4bKfe8d27ec IPv6 Example Via: SIP/2.0/TCP [2001:db8:1:101::12]:5060;branch=z9hG4bKfe8d27ec	10.89.79.203=CCM IPv4 Address 2001:db8:1:101::12 is CCM IPv6 Address 5060=CCM Port Branch=Unique number
Contact	IPv4 Example Contact: <sip:30000@10.8.69.115:5060> IPv6 Example Contact: <sip:30000@[2001:db8:1:101::12]:5060>	localPort=configured “Incoming port” of the indicated SIPTrunk

Message Timers

The following timers are service parameters that are configurable in OL-20951-01 Administration. OL-20951-01 maintains the following configuration data for the SIP timers.

Table 1-24 Message Timers

Timer	Value(Default/range)	Definition
trying	500 ms/100–1000 ms	The time to wait for a 100 response to an INVITE request.
connect	500 ms / 100–1000 ms	The time to wait for a 200 response to an ACK request.
disconnect	500 ms / 100–1000 ms	The time to wait for a 200 response to a BYE request.
expires	3 min/ 1–5 min	Limits the time duration for which an INVITE is valid.
rellxx	500 ms / 100–1000 ms	The time that OL-20951-01 should wait before retransmitting the reliable lxx responses.
prack	500 ms / 100–1000 ms	The time that OL-20951-01 should wait before retransmitting the PRACK request.

CISCO CONFIDENTIAL**Table 1-24** *Message Timers (continued)*

Timer	Value(Default/range)	Definition
notify	500 ms / 100–1000 ms	The time that OL-20951-01 should wait before retransmitting the Notify message.
publish	500 ms / 100–1000 ms	The time that OL-20951-01 should wait before retransmitting the Publish message.

Message Retry Counts

All the following retry counts are service parameters that are configurable in OL-20951-01 Administration. OL-20951-01 maintains the following configuration data for the SIP retries. In case of TCP transportation type, the timers will still pop as usual; however, in the event of timeout, Stack does not retransmit; it will instead rely on TCP itself to do the retry.

Table 1-25 *Message Retry Counts*

Counter	Default Value	Suggested Range	Definition
Invite retry count	5	1 – 10	Number of INVITE retries
Response retry count	6	1 – 10	Number of RESPONSE retries
Bye retry count	10	1 – 10	Number of BYE retries
Cancel retry count	10	1 – 10	Number of Cancel retries
PRACK retry count	6	1 – 10	Number of PRACK retries
Rel1xx retry count	10	1 – 10	Number of Reliable 1xx response retries
Notify retry count	6	1 - 10	Number of NOTIFY retries
Publish retry count	6	1 - 10	Number of Publish retries

SIP Status Code to Q.850 Cause Code Mapping

Table 1-26 lists the SIP Status Codes and maps them to the Q.850 Release Cause Codes.

Table 1-26 *SIP Status Code to Q.850 Cause Code Mapping*

SIP Status Code	Q.850 Cause Code	Q.850 Release Cause Description	Scenarios when generated by OL-20951-01 (due to internal errors)
404 Not Found 485 Ambiguous 604 Does not exist anywhere	1 Unallocated (unassigned) number	Indicates that the destination requested by the user which the calling cannot be reached because the number is unassigned.	The number is not in the routing table, or it has no path across the ISDN network.

CISCO CONFIDENTIAL**Table 1-26 SIP Status Code to Q.850 Cause Code Mapping (continued)**

SIP Status Code	Q.850 Cause Code	Q.850 Release Cause Description	Scenarios when generated by OL-20951-01 (due to internal errors)
486 Busy here 491 Request pending 493 Undecipherable 600 Busy everywhere	17 User busy	Indicates that the called party cannot accept another call because the user busy condition has been encountered. Either the called user or the network can generate this cause value. In the case of a user-determined user busy, be aware that the user equipment is compatible with the call.	User is already using the telephone.
480 Temporarily unavailable	18 No user responding	Used when the called party does not respond to a call establishment message with either an alerting or connect indication within the time allotted. The number that is being dialed has an active D-channel, but the far end chooses not to answer.	The user does not answer the telephone.
401 Unauthorized 402 Payment Required 403 Forbidden 407 Proxy Authentication Required 600 Decline	21 Call rejected	Indicates that the equipment sending this cause code does not want to accept this call, although it could accept the call because the equipment sending the cause is neither busy nor incompatible. The network might also generate this code to indicate that the call was cleared because of a supplementary service constraint. The diagnostic field might contain additional information about the supplementary service and reason for rejection.	A subscriber has a service constraint that does not accept this call.
410 Gone	22 Number changed	Returned to a calling party when the called number that is indicated by the calling party is no longer assigned. This diagnostic field might optionally contain the new called party number.	A subscriber changed their number.
482 Loop detected 483 Too many hops	25 Exchange routing error	Indicates that the destination indicated by the user cannot be reached because an intermediate exchange released the call due to reaching a limit in executing the hop counter procedure.	The network is overloaded.
484 Address incomplete	28 Invalid number format	Indicates that the called party cannot be reached because the called party number is not in a valid format or is not complete.	The caller calls out by using a network type number (enterprise) rather instead of Unknown or National.

CISCO CONFIDENTIAL**Table 1-26 SIP Status Code to Q.850 Cause Code Mapping (continued)**

SIP Status Code	Q.850 Cause Code	Q.850 Release Cause Description	Scenarios when generated by OL-20951-01 (due to internal errors)
487 Request terminated 488 Not acceptable here 606 Not acceptable	31 Normal unspecified	Reports a normal event only when no other cause in the normal class applies.	Normal operation
502 Bad gateway	38 Network out of order	Indicates that the network is not functioning correctly and that the condition is likely to last for an extended time .	Network failure
400 Bad Request 481 Call leg does not exist 500 Server internal error 503 Service Unavailable	41 Temporary failure	Indicates that the network is not functioning correctly and that the condition is likely to be resolved quickly.	Network failure
405 Method not allowed	63 Service or option not available, unspecified	Reports a service or option as a not available event only when no other cause in the service or option not available class applies.	Service not available
406 Not acceptable 415 Unsupported media type 501 Not implemented	79 Service or option not implemented, unspecified	Reports a service or option as a not implemented event only when no other cause in the service or option not implemented class applies.	Service not implemented
408 Request timeout 504 Server timeout	102 Recovery on timer expiry	Indicates that the expiration of a timer in association with error handling procedures initiated the procedure.	•No H.323 call proceeding •No H.323 alerting or connect message received from the terminating gateway •Invite expires timer reached maximum number of retries that are allowed.

CISCO CONFIDENTIAL**Table 1-26** *SIP Status Code to Q.850 Cause Code Mapping (continued)*

SIP Status Code	Q.850 Cause Code	Q.850 Release Cause Description	Scenarios when generated by OL-20951-01 (due to internal errors)
411 Length required 413 Request entity too long 414 Request URI too long 416 Unsupported URI scheme 420 Bad extension 421 Extension required 423 Interval too brief 505 SIP version not supported 513 Message too large	127 Internal error, unspecified	CC_CAUSE_INTERWORKING Indicates that interworking occurred with a network that does not provide causes for actions that it takes. The precise cause cannot be ascertained.	Failed to send message to Public Switched Telephone Network (PSTN).

SIP Trunk Supported Features

This section provides details with respect to overall flow and handling of basic SIP trunk features. This includes, but is not limited to, the following features:

- Identification Services
- Basic Call
- Simple Hold/Resume
- Transfer
- Enhanced Click-to-Dial
- Conference
- Call Forwarding
- Message Waiting Indication
- Endpoint 302 Redirect
- Park and Retrieve
- Video
- T38 Fax
- Presence (Busy Lamp Field)
- Out-of-band DTMF using KPML
- SIP Over TLS Connection
- Call Preservation
- Outbound PUBLISH
- Click-to-Call
- Monitoring and Recording
- SIP Trunk Device Identification

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- Click-to-conference
- G.729 with MTP
- PAI/PPI
- SRTP
- G.Clear
- MLPP
- V.150.1
- SIP T38 Fax Interoperability with Microsoft Exchange
- MMoH
- Location based CAC
- IPv6
- Calling Party Number Transformations
- Logical Partitioning
- Early Offer G.Clear
- SRTP over non-secure SIP Trunks
- End to End Preconditions
- Connected Party Number Transformation
- Secure Monitoring and Recording
- End to end call tracing
- Q.735 MLPP over SIP Trunk

Identification Services

This section describes the SIP Identification Services in OL-20951-01. These services include Line Identification Services and Name Identification Services. Line Identification Services include Calling Line and Connected Line Presentation/Restriction. Name Identification Services include Calling Name and Connected Name Presentation/Restriction.

The following sections describe the options that OL-20951-01 6.1 and later provide for communication of identity and presentation information. The selection of these options is controllable through a SIP trunk configuration. You can use either or both options. If you select both, Asserted-Identity takes precedence over RPID.

- [Using Remote-Party-ID Header, page 1-36](#)
- [Using P-Asserted-Identity/P-Preferred-Identity and Privacy Header, page 1-38](#)

Using Remote-Party-ID Header

OL-20951-01 provides flexible configuration options to provide these services on a call-by-call basis or statically preconfigured for each SIP trunk. This section does not describe those configuration options; it only provides the details on how OL-20951-01 conveys these ID services in SIP by using the Remote-Party-ID header. [Table 1-27](#) captures the support levels for the various parameters:

CISCO CONFIDENTIAL**Table 1-27 Support Levels for Various Parameters**

Parameter	Values	Notes
party	calling	Ignored if received by OL-20951-01.
	called	Set to called for outgoing INVITE or UPDATE from OL-20951-01. Set to calling for outgoing responses from OL-20951-01.
id-type	subscriber	Ignored if received by OL-20951-01.
	user	Set to subscriber for outgoing requests and responses.
	term	
privacy	full	Supported if received by OL-20951-01.
	name	OL-20951-01 also supports sending all values in either INVITE or UPDATE requests and responses for the same.
	uri	
	off	
screen	no	Ignored if received by OL-20951-01.
	yes	OL-20951-01 always sends yes when generating an Remote-Party-ID header.

The following sections provide additional details:

- [Calling Line and Name Identification Presentation, page 1-37](#)
- [Calling Line and Name Identification Restriction, page 1-37](#)
- [Connected Line and Name Identification Presentation, page 1-38](#)
- [Connected Line and Name Identification Restriction, page 1-38](#)

OL-20951-01 uses SIP “From” and “Remote-Party-ID” headers to provide ID services as described in the following sections.

Calling Line and Name Identification Presentation

You can configure Number and Name restriction independently on the SIP trunk. Customers can choose to restrict only number and allow name to be presented or vice versa. The default SIP trunk configuration setting specifies “not selected” or “per call setting.”

Calling Line and Name Identification Restriction

- **Name**—When name is restricted, the display field (calling Name) in “From” header is set to a configurable string (that is, “Anonymous”). The display field in the “Remote-Party-ID” header still includes the actual name but the privacy field is set to “**name**”. For example:

```
From: "Anonymous" <sip:9728135001@localhost>
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=calling;screen=yes;privacy=name
```

- **Number**—When number is restricted, the calling Line is left out in the “From” header; however, it is still included in the “Remote-Party-ID” header with **privacy=uri**. For example:

```
From: "Bob Jones" <sip: 9728135001@localhost>
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=calling;screen=yes;privacy=uri
```

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- **Both Name and Number**—When both name and number are restricted, the same principle applies with `privacy=full`:

```
From: "Anonymous" <sip: 9728135001@localhost>
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=calling;screen=yes;privacy=full
```

- **None**—When both name and number are allowed, the following example applies:

```
From: "Bob Jones" <sip: 9728135001@localhost>
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=calling;screen=yes;privacy=off
```

Connected Line and Name Identification Presentation

The Connected Number (Line) and Name Identification supplementary service provides the calling user with the called (connected) user number and/or name.

OL-20951-01 uses the "Remote-Party-ID" headers in 18x, 200 and re-INVITE or UPDATE messages to convey connected information. The "party" field of the "Remote-Party-ID" header is set to "called" (instead of "calling" for calling ID services).

Connected Line and Name Identification Restriction

Similar to Calling ID services, customers have option to restrict connected number and name independently.

- **Name**—When name is restricted, the connected name still gets included with **`privacy=name`**. For example:

```
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=called;screen=yes;privacy=name
```

- **Number Restrict only**—When number is restricted, the connected number still gets included with **`privacy=uri`**. For example:

```
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=called;screen=yes;privacy=uri
```

- **Both Name and Number Restrict**—When both name and number are restricted, both get included with **`privacy=full`**. For example:

```
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=called;screen=yes;privacy=full
```

- **None**—Both name and number are allowed.

For example, if OL-20951-01 receives an INVITE that is destined to extension 9728135001, OL-20951-01 includes the called party name in 18x and 200 messages as follows:

```
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=called;screen=yes;privacy=off
```

Using P-Asserted-Identity/P-Preferred-Identity and Privacy Header

OL-20951-01 provides a flexible configuration options to provide these services based on a static configuration for each SIP Trunk. This section provides an overview of these configuration options and of how OL-20951-01 conveys ID services in SIP protocol using the P-Asserted-Identity/P-Preferred-Identity and Privacy headers.

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Table 1-28 shows information about the OL-20951-01 SIP trunk use and relevance of the various values for a “Privacy” header.

Table 1-28 Values for Various Parameters

Value	Notes
Header doesn't exist	The absence of Privacy header in an INVITE, UPDATE, 180, 183 or 200 message means that the presentation is allowed for name and number. In case of initial INVITE, the presentation information applies to calling party information. In the case of reINVITE, UPDATE, 180, 183, or 200 it applies to connected party information.
id	For outgoing INVITE: Used for specifying presentation restriction for Calling Party name/number. For outgoing re-INVITE, UPDATE, 180, 183, or 200: Used for specifying presentation restriction for Connected Party name/number. For incoming INVITE, UPDATE, 180, 183, or 200: Interpreted as presentation restriction for Connected Party name/number.
header	If present in an incoming SIP request (INVITE or UPDATE), interpreted as presentation restriction for Connected Party name/number. If present in an incoming SIP response, ignored (interpreted as presentation allowed).
user	If present in an coming SIP request (INVITE or UPDATE), interpreted as presentation restriction for Connected Party name/number. If present in an incoming SIP response, ignored (interpreted as presentation allowed).
none	For outgoing INVITE: Used for specifying presentation allowed for Calling Party name/number. For outgoing re-INVITE, UPDATE, 180, 183, or 200: Used for specifying presentation allowed for Connected Party name/number. For incoming INVITE, UPDATE, 180, 183, or 200: Interpreted as presentation allowed for Connected Party's name/number.

CISCO CONFIDENTIAL**Table 1-28 Values for Various Parameters (continued)**

Value	Notes
critical	For outgoing INVITE/UPDATE, implies that privacy services requested for this message are critical and therefore, if these privacy services cannot be provided by the network, this request should be rejected. Additionally, the request should carry a Proxy-Require header containing the new option-tag “privacy.” Per rfc3323, the “critical” value is not set in outgoing responses. For incoming SIP messages (requests or Responses), OL-20951-01 performs no specific handling for “critical” other than syntax verification.

Table 1-29 provides information about P-Asserted-Identity/P-Preferred-Identity.

Table 1-29 P-Asserted-Identity/P-Preferred-Identity Headers

Headers with value formats	Notes
P-Asserted-Identity: “name” SIPURI, tel:+DN	Comma separated headers. One SIP URI and one tel URI.
P-Asserted-Identity: “name” SIPSURI, tel:+DN	Comma separated headers. One SIPS URI and one tel URI.
P-Asserted-Identity: “name” SIPURI P-Asserted-Identity: tel:+DN	Multiple PAI headers.

The P-Asserted-Identity/P-Preferred-Identity headers are validated for syntactical correctness. If the format is not expected as per rfc3325, a “400 Bad Request” response is sent to the UAC and the request is dropped.

The format of P-Preferred-Identity header the same as that of P-Asserted-Identity header, so this section does not explicitly cover P-Preferred-Identity.

The identity information is communicated by using P-Asserted-Identity or P-Preferred-Identity headers. The presentation information is communicated by using Privacy header.

Various pages in OL-20951-01 Administration (such as the route pattern and the translation pattern configuration pages) allow the configuration of calling number or name restrictions. The SIP trunk screen provides configuration options for the type of Identity (either Asserted or RPID). For Asserted-Identity, there is no option for allowing or restricting name/number separately (as RFC 3323 & RFC 3325 does not provide separate option for this configuration). Therefore, the SIP Privacy option applies to name and number (calling and connected). When SIP Privacy selection box set to Default, the presentation information that is received from the upper layer (call control) is used by the SIP trunk for setting the presentation of name/number in outgoing SIP request and response messages.

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The following sections provide additional details:

- [Calling Line and Name Identification Presentation, page 1-41](#)
- [Connected Line and Name Identification Presentation, page 1-41](#)

Calling Line and Name Identification Presentation

- **Both name and number are allowed**—The OL-20951-01 SIP trunk does not include a Privacy header when privacy for calling name and number is allowed. For example:

```
From: "Bob Jones" <sip:9728135001@ipAddr1>
P-Asserted-Identity: "Bob Jones"<sip:9728135001@ipAddr1>
```



Note The Privacy: none header also results in the same behavior: name and number are allowed.

- **Name is restricted**—When calling name is restricted and Privacy:id header must be sent, the From header with specific values for Display Name and SIP URI must be used. The P-Asserted-Identity header still includes the actual name. For example:

```
From: "Anonymous" <sip:anonymous@anonymous.invalid>
P-Asserted-Identity: "Bob Jones"<sip:9728135001@ipAddr1>
Privacy: id
```



Note When Name is restricted, the inclusion of Privacy: id also results in a restriction for number.

- **Number is restricted**—When calling number is restricted and Privacy:id header must be sent, the From header with specific values for Display Name and SIP URI must be used. The P-Asserted-Identity header still includes the actual user part in the SIP URI. For example:

```
From: "Anonymous" <sip:anonymous@anonymous.invalid>
P-Asserted-Identity: "Bob Jones"<sip:9728135001@ipAddr1>
Privacy: id
```



Note When Number is restricted, the inclusion of Privacy: id also results in restriction for display name.

- **Both name and number are restricted**—When calling name and number are restricted, the same principle applies. For example:

```
From: "Anonymous" <sip:anonymous@anonymous.invalid>
P-Asserted-Identity: "Bob Jones"<sip:9728135001@ipAddr1>
Privacy: id
```

Connected Line and Name Identification Presentation

- **Both name and number are allowed**—The OL-20951-01 SIP trunk does not include a Privacy header when privacy for connected name and number is allowed. For example:

```
P-Asserted-Identity: "alice"<sip:9193929001@ipAddr2>
```

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Name is restricted—When connected name is restricted, a Privacy:id header must be sent. The P-Asserted-Identity header still includes the actual connected name. For example:

```
P-Asserted-Identity: "alice"<sip:9193929001@ipAddr2>
Privacy: id
```

- **Number is restricted**—When connected number is restricted, a Privacy:id header must be sent. The P-Asserted-Identity header still includes the actual connected number. For example:

```
P-Asserted-Identity: "alice"<sip:9193929001@ipAddr2>
Privacy: id
```

- **Both name and number are restricted**—When name and number are restricted, the same principle applies: the P-Asserted-Identity header still includes the actual connected name and number. For example:

```
P-Asserted-Identity: "alice"<sip:9193929001@ipAddr2>
Privacy: id
```

Outbound PUBLISH

OL-20951-01 uses the PUBLISH method as the preferred mechanism to send IP phone presence information over a SIP trunk.. The main reason for using the PUBLISH method is the performance improvement over the SUBSCRIBE/NOTIFY mechanism used in previous releases.

- OL-20951-01 sends presence information for the phones that it manages over a SIP trunk.
- Release 5.x uses the SUBSCRIBE/NOTIFY framework for the presence communication over a SIP trunk; Release 6.0(1) uses the SIP PUBLISH method for presence communication.
- Presence status in Release 5.x (SUB/NOT) applies on a per-directory-number basis. Presence status in Release 6.0(1) (PUBLISH) applies on a per-line-appearance basis.
- Line appearance maps to one directory number on a specific phone device. Thus, if two phones share the same directory number 1000, two line appearances exist: (phone1, 1000) and (phone2, 1000)
- The PUBLISH message has user association.
- The PUBLISH mechanism works with multiple partitions.
- Only two status possibilities exist for Busy/Idle in PUBLISH: “Busy” or “Idle.” (Release 5.x also supports “Available.”)
- DND Status gets published if it is turned on.
- Mobility support improves because the mobile number is in the PUBLISH message.
- Performance improvement: by using the SUBSCRIBE/NOTIFY framework, a refresh requires four messages with the PIDF body. Using the PUBLISH mechanism, a refresh requires two messages without the PIDF body.
- Release 6.0(1) includes a set of BAT tools to facilitate the upgrade from Release 5.x.

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G.729 with MTP

In OL-20951-01 7.0, the SIP trunk allows early-offer calls (calls with pre-allocated MTP) to be initiated with low bandwidth codecs such as G.729. In previous releases, the SIP trunk supports only G711.a/ulaw with pre-allocated MTP. This feature is required for endpoints that do not support delayed media calls and that do not want to use the high bandwidth G.711 codec. This feature is turned off by default.

Software MTP on OL-20951-01 does not support the G.729 codec. Therefore, this feature requires an external MTP/Xcoder device that supports the G.729 coded to be configured.

G.729 has four variants. However, because there is no difference from the signaling perspective between G.729 and G.729a and between G.729b and G.729ab, the configuration menu for the preferred originating codec provides only show two options.

The two variants are not compatible with each other on the IOS MTP devices. Interworking with each other requires the presence of a transcoder that supports G.729 (annexb=no) to G.729 (annexb=yes) transcoding.

OL-20951-01 treats an incoming call with G.729 with annexb=yes as an indication of all the 4 G.729 codec variants.

If MTP required is configured. The initial INVITE only contains an offer, if the trunk is able to reserve MTP/Xcoder resource. Otherwise the call is initiated as a Delayed Media call.

If the terminating side does not support the codec that is offered, the call is torn down and not tried as a delayed media call.

T38 Fax is supported with G.729 codec. However, the call will not switch back to an audio call after the fax transmission completes. This functionality is consistent with T38 Fax support with other codecs.

Mid-call codec switching from the UAS is supported if there is an Xcoder/MTP device that supports both the original codec and the new codec that is offered.

MLPP

The Multilevel Precedence and Preemption (MLPP) feature implementation is based on RFC4411 (Reason Header for Preemption Events) and RFC4412 (Resource Priority for SIP). MLPP supplementary services over SIP trunk are:

- Precedence Call Waiting
- Call Hold
- Call Transfer
- Call Forwarding
- Three-way Calling
- Call Pickup
- Hunt List

Resource Priority Header Overview

- Resource priority (RP) headers can be used in the following SIP messages: INVITE, UPDATE, REFER (in-dialogue only)
- Messages that contain RP header must mark message with the resource priority required tag:
Require: resource-priority

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- RP headers use either of the following formats:
 - Resource-Priority:<network-domain>.<priority-value>
 - Resource-Priority:<network-domain>-<precedence-domain>.<priority-value>
- RP Header precedence domain originates from the MLPP domain of the call. AMLPP domain of 000000 may or may not be present as it is the default MLPP domain and optional.

Preemption Reason Header Overview

Preemption reason headers are included in SIP messages that terminate existing dialogues.

The following text shows the format of the preemption reason header:

Reason: preemption;cause=<cause value>;text=<text string>

The following cause values are defined by RFC4411.

1. UA Preemption
2. Reserved Resources Preempted
3. Generic Preemption
4. Non-IP Preemption
5. Network Preemption

V.150.1 MOIP

ITU V.150.1 specifies the transport of modem communications, including modem relay and voice band data, over IP networks. For the SIP, this information is transmitted in the SDP by using the media capability sequence that is specified by RFC3407. The following example shows an SDP with MOIP data:

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 172.18.152.50
s=SIP Call
c=IN IP4 172.18.154.236
t=0 0
m=audio 4000 RTP/AVP 0 8 18 118
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:118 v150fw/8000
a=sgn:0
a=csrc: 1 audio udpsprt 120
a=cpar: a=sprtmap:120 v150mr/8000
a=sendonly
```

In this example, the dynamic payload type 118 is mapped to v150 modem relay using sprt channel 120. The MOIP SDP information is internally generated based on device type and is not configurable. The following values are always used and systems that need to interconnect must use these values:

- SPRT channel: 120
- Modem relay payload type: 118
- Voice band data payload type: 100

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There is no OL-20951-01 configuration to enable this feature or change the information that is signaled. When a V.150.1 capable device is registered with OL-20951-01, the V.150.1 capabilities are automatically signaled in the SDP when communicating over a SIP trunk.

SIP T.38 Interoperability with Microsoft Exchange

The feature provides OL-20951-01 with an alternate way to signal the call party switching over to T.38 in SIP.

OL-20951-01 and gateways use a consistent way to initiate T.38 over audio calls in H.323, SIP, MGCP. The current way of representation in protocol signaling indicates to switch the existing audio channel to an image channel for a T.38 facsimile, and the existing ports are normally reused. The signal also implies that the audio transmission is terminated before establishing image channels for a facsimile.

Some third-party products such as Microsoft Exchange Server prefer switching an established audio call to T.38 by explicitly indicating that the existing voice channel is terminated/not wanted and another new channel is needed to transmit T.38 facsimile. Both ways of representation for T.38 fax relay in SIP conform to the standards suggested by ITU T.38 and RFC3264. However, OL-20951-01 does not handle the Microsoft negotiation method so that the call fails to switch over to fax.

OL-20951-01 continues to behave the same so that when an audio call is established and a call party sends out T.38 call request, OL-20951-01 terminates the existing audio channels and re-establishes an image channel for facsimile. Therefore, the existing functionality/mechanisms for T.38 will not be changed. The change supports incoming SIP signal that is supported by Microsoft and provides a configurable option in OL-20951-01 to initiate fax request in the new signaling context.

OL-20951-01 accepts the context of SIP signaling suggested by Microsoft to switch an audio call to a T.38 facsimile. Specifically, the SIP mid-call INVITE signal specifies that the current audio channel will be terminated by setting the audio port number as 0. In the same signal, another SIP media line syntax will be included to indicate detailed capability of T.38 and its receiving channel. OL-20951-01 interprets this message as request of T.38 request.

If a SIP INVITE signal indicates active audio and image channels, it is continuously treated as an audio call request and OL-20951-01 ignores the fax capability. OL-20951-01 does not support Audio + Image call.

However, the limitation does not affect MS interoperability request as MS also intends to terminate audio session before establishing image channel for T.38.

Besides accepting multiple m=line (audio+image line) syntax in SIP signal to switch a call to T.38, Microsoft provides a configurable parameter in the SIP profile to initiate outgoing SIP signal in multiple m=line with audio port as 0 to negotiate T.38 calls. This parameter is offered to the SIP trunk only. Therefore, when an Exchange server (a server from another vendor) has been registered as SIP trunk in Microsoft and the parameter is checked, the server receives SIP T.38 in multiple m=lines.

This interoperability support is in OL-20951-01 only and OL-20951-01 should continue to interact with Cisco SIP gateways with a signal image m=line for a T.38 request. Therefore, the configurable parameter should not be checked to any SIP trunk that is associated with Cisco gateways.

Although the new parameter can be checked in a SIP profile that is associated with a SIP ICT, you should avoid doing so as it does not offer any benefit for the call.

This interoperability support for MS Exchange should not change any existing behavior of T.38 calls in any VoIP protocols. In addition, this support should not affect any VoIP protocol interoperability. But the current T.38 limitations stated will remain.

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Multicast MOH over H.323/SIP Trunk

Currently, multicast MoH does not work fully as expected over SIP ICT trunk. Due to this, extra bandwidth used for each unicast MoH over the same ICT is wasted. This feature is to make multicast MoH work completely over SIP and H.323 ICT.

If the holding side is configured to use MMoH, multicast address is sent in SIP SDP message. If the other side supports MMoH, only then will it work. The new service parameter "Send Multicast MOH in H.245 OLC Message" does not apply for SIP ICT. MMoH works on tandem SIP/SIP and H.323/H.323 cases but not for SIP/H.323 interop scenarios.

IPv6

OL-20951-01 has been enhanced to operate in both IPv4 only mode, or Dual Mode, i.e. IPv4_IPv6 mode. If IPv6 is enabled on OL-20951-01, then it behaves in Dual Mode, otherwise it behaves in IPv4 only mode.

SIP Trunk was one of the components on OL-20951-01 that added support for IPv6. SIP Trunk via configuration can behave in IPv4 only mode, IPv6 only mode, or Dual Mode IPv4_IPv6.

The mode a trunk behaves is configured under the Common Device Configuration via setting the IP Addressing Mode. The default mode for a SIP Trunk is Dual Mode.

The IP Addressing Mode has three settings

- IPv4 only – The SIP Trunk uses the OL-20951-01 IPv4 server address as its source address for SIP signaling and either, an MTP's, or Phone's IPv4 address for media.
- IPv6 only – The SIP Trunk uses the OL-20951-01 IPv6 server address as its source address for SIP signaling and either, an MTP's, or Phone's IPv6 address for media.
- IPv4 and IPv6 – The SIP Trunk uses either the OL-20951-01 IPv4 server address, or the OL-20951-01 server IPv6 address as its source address for signaling and either, an MTP's IPv4 and/or IPv6 address, or the Phone's IPv4 and/or IPv6 address for media. If the trunk is configured in Dual Mode, then OL-20951-01 will listen for SIP Traffic on both the IPv4 and IPv6 Interface.

For an IPv4 only trunk, the destination address will be populated with the remote peer's IPv4 address.

For an IPv6 only trunk, the destination IPv6 address field will be populated with the remote peer's IPv6 address.

For a dual mode trunk, both the Destination Address and the Destination v6 address fields are populated. If for some reason only one of the fields is populated, then the trunk will behave in only that mode. For a dual mode SIP Trunk, with both IP Addresses configured on the SIP Trunk device page, the enterprise parameter *IP addressing mode Preference Control* will dictate whether to use IPv4 or the IPv6 address for signaling.

For an IPv6 call, all the SIP URI's will use the following IPv6 address format (address enclosed in [] square brackets) as defined by RFC 3261

```
SIP-URI          = "sip:" [ userinfo ] hostport
                    uri-parameters [ headers ]hostport
hostport         = host [ ":" port ]
host             = hostname / IPv4address / IPv6reference
IPv6reference    = "[" IPv6address "]"
```

Example:

```
INVITE sip:25421@[2001:db8:1:2::12]:5083 SIP/2.0
```

CISCO CONFIDENTIAL**Support for Alternative Network Address Types (ANAT) over SIP Trunk**

OL-20951-01 supports ANAT over dual mode (IPv4_IPv6) SIP Trunks. ANAT allows for SIP devices to send both IPv4 and IPv6 addresses in the SDP body of a SIP Offer, and to return in the SDP body of the SIP Answer a preferred IP address (IPv4 or IPv6) with which to establish a media connection. ANAT is only supported over dual mode SIP Trunk and must be supported by both ends of the SIP Trunk.

Example ANAT Offer SDP

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 172.18.199.129
s=SIP Call
t=0 0
a=group:ANAT 1 2
m=audio 18484 RTP/AVP 0 101
c=IN IP6 2001:db8:c18:1:21c:58ff:fe2a:23f8
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=mid:1
m=audio 18282 RTP/AVP 0 101
c=IN IP4 172.18.199.55
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=mid:2
```

ANAT is enabled by checking the "Enable ANAT" checkbox on the SIP Profile associated with the SIP Trunk. ANAT can be used with both Early Offer and Delayed Offer calls. ANAT should only be enabled on SIP Trunks with an IP Addressing Mode setting of IPv4 and IPv6.

The use of ANAT on a Dual Mode SIP Trunk is indicated in the header of the SIP Invite

- The field "Require: sdp-anat" is used by OL-20951-01 SIP Trunks using Early Offer.
- The field "Supported: sdp-anat" is used by OL-20951-01 SIP Trunks using Delayed Offer.
- The "require" sdp-anat value indicates to the far end of the SIP Trunk connection that an ANAT based response "must" be supported.
- The "supported" sdp-anat value indicates to the far end of the SIP Trunk connection that that an ANAT based response "should" be supported.

If ANAT is enabled it should be configured on both ends of the SIP Trunk, (If "require: sdp-anat" is sent in the SIP Invite and the receiving SIP Trunk does not support ANAT all calls will be rejected).

Inbound SIP Trunk Call Rules

- If IPv6 is not enabled on OL-20951-01 and a call comes into OL-20951-01 on IPv6 signaling, call is dropped with no response being sent to caller. The reason for this is that when IPv6 is disabled, OL-20951-01 does not have any ports listening for IPv6 connections. The caller hears dead air.
- If IPv6 is enabled on OL-20951-01 and a call comes into OL-20951-01 with invalid mode, the call is rejected with an error being sent from OL-20951-01 to caller.
For example, in case IPv6_only trunk receives a call w/v4 signaling in INVITE, OL-20951-01 sends a 503 response for that INVITE request. The caller hears fast busy tone.

CISCO CONFIDENTIAL**Outgoing SIP Trunk Calls Rules**

- If IP addressing mode for SIP Trunk is set to IPv4_only and no IPv4 address is specified on the SIP Trunk configuration page, no call can be made from that sip trunk. Same is true for IPv6_only.
- If IP addressing mode for SIP Trunk is set to IPv6_only, IPv6 is chosen for signaling to send out INVITE. Same is true for IPv4_only.
- If IP addressing mode for SIP Trunk is IPv4_v6, signaling mode is chosen based on 'IP addressing mode preference for Signaling' and specified IP address on trunk configuration page. If preferred IP is not configured on trunk page then whatever is configured on SIP trunk is chosen.
- If IP addressing mode of SIP Trunk is set to IPv4_only and MTP Required is checked, IPv4 media is sent out in SDP if MTP is allocated. If no MTP is available, INVITE without SDP is sent.
- If IP addressing mode of SIP Trunk is set to IPv6_only and MTP Required is checked, IPv6 media is sent out in SDP If dual stack MTP is allocated. If no IPv4\IPv6 MTP is available, INVITE without SDP is sent.
- If IP addressing mode of SIP Trunk is set to IPv4_v6, and MTP Required is checked, a dual stack MTP is allocated if media preference is IPv6; Otherwise IPv4 MTP is allocated. If no MTP is available, the call is tried as a delayed media call.
- If IP addressing mode of SIP Trunk is set to IPv4_v6, and MTP Required is checked and a dual stack is allocated, SIP Trunk decides whether to send both IPv4 and IPv6 SDP or only IPv4 or only IPv6 SDP based on "ANAT Configuration" parameter.
- If ANAT is enabled both IPv4 and IPv6 SDP is sent with ANAT parameters set. Peer device can select one and that one is used for media for that call.
- If ANAT is disabled, SDP sent is based on media preference configured under Enterprise parameters.

Calling Party Number Transformations

The current design in OL-20951-01 for globalizing on ingress and localizing on egress leaves very few holes that remain to be addressed.

The current design allows for prefixing digits to inbound calls based on ISDN number type. There is no way to manipulate the digits other than prefixing or stripping a fixed number of digits.

A problem that has come up in some of the early Alpha testing is that service providers are not consistently delivering numbering plan information correctly, leading to incorrect number manipulation because the calls are presented as unknown when they should be coming in as national or international. Unknown calls need to be transformed conditionally based on the digits presented and the current prefix/strip field does not offer a way to modify digits conditionally.

Also, SIP only has unknown numbering type, making it almost impossible to prefix anything that will apply to all the different numbers that may come in. This will be problematic for customers subscribing to SIP trunking services. Some of this problem can possibly be addressed if there is an SBC in the picture or the call is going to a SIP gateway by doing the manipulation on the SBC/Gateway, but the capabilities of the SBCs are questionable.

As part of this feature the prefix digits field is modified to allow stripping as well with a special notation (prefix:strip digits). However this is not very user friendly for an administrator.

To address these limitations, the following enhancements are being made:

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- For all the current Incoming Calling Party Settings configuration sections on Gateway and Trunk configuration pages as well as Device Pool and Service Parameters, adding an option to configure Number of Digits to Strip in addition to the already available Prefix fields. This would replace the colon (:) notation that was added in OL-20951-01 7.0.
- Add the ability to configure a Transformation CSS on each of the above mentioned configuration pages as well. There will be a transformation CSS for each calling party number type to allow the ability to conditionally transform the calling party number based on number type.

For Globalization with this feature, three operations are possible to the Incoming Calling Party Number

- Strip - valid entries 0-24
- Prefix - maximum length is 16 digits
- Incoming Calling Party Transformation CSS which uses Calling Party Transformation patterns

It is recommended to use Strip & Prefix together as per the customer requirements. If conditional modifications are required then instead CSS can be used. There are not many cases where all 3 should be used together.

If all three are configured then the order in which these are applied are:

1. Strip
2. Prefix
3. CSS match and transformations applied

After the above feature changes, administrator is able to configure Prefix and Strip Digits at different levels and there was no sync at device, device pool and service parameter levels. In OL-20951-01 7.0, this issue was non-existent, as both the Prefix and Strip Digits, were configured in the Prefix field, using (Prefix: Strip digits) notation.

In addition to this, the Strip Digits and Transformation CSS field, by default had the NULL and <None> configuration.

In initial feature implementation, it was assumed that these default configuration for both Strip Digits and CGPN Transformation CSS, indicates that the call processing will use the values configured at the next level (Device Pool). Whereas, the Prefix field has the "Default" option, which implies that the call processing will use Prefix Digits, at the next level setting (Device Pool/Service Parameter).

So, ideally there's no way to indicate the call processing that, the user does not want to apply Strip Digits and CGPN Transformation CSS. Call processing will always go to the next level (Device Pool) and if nothing is configured at the next level, then no Strip Digits and CGPN Transformation CSS, will be applied.

Extra changes for this feature addressed these limitations in OL-20951-01 7.1(2) by:

- Adding "Use Device Pool Calling Party Transformation CSS" checkbox, associated with Incoming Calling Party Transformation CSS for National, International, Subscriber and Unknown number types.
- Database shouldn't allow Strip Digits to be configured, when the Prefix field is set to "Default".

Connected Party Number Transformation

The Cisco Unified CM's 6.0 & 7.0 releases added transformations support for the calling party and called party numbers by introducing the concept of "Calling Party Transformation Pattern" and "Called Party Transformation Pattern". Depending upon UCM deployments, routing requirements, number presentation requirements & CDR requirements, these existing transformations allow the calling/called numbers to be transformed to globalized, localized etc formats.

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For the incoming SIP Trunk calls on UCM, in the backwards direction signaling for ringing or connect messages, the UCM communicates the display number information of target destination's Directory Number or Route Pattern number. Currently, if required there is no provision on UCM for transforming the number, which is sent in backward direction of signaling.

- In IME (ViPR) UCM deployments, the requirement is for terminating cluster to communicate E164 number of the called or connected party in IME SIP Trunk communication. The internal numbers of the called enterprise may not be useful for communication across the enterprise.
- In Tandem/Leaf UCM cluster solutions which use Softswitch for PSTN Trunking, the requirement is for UCM to communicate DID number of the called or connected party in SIP Trunk communication. This is required for billing purpose etc.

To address these requirements, the proposal is to support mechanism to transform connected party number by performing transformations on the called/connected number before sending the display number in identity headers (PAI or RemotePartyId) of SIP messages on SIP Trunk.

This feature is going to be useful for Cisco Unified CM deployments involving SIP Trunk and needing capability to communicate transformed number in identity headers of 180 Ringing, 200 OK and mid-call UPDATE/reINVITE messages. This would allow the calling endpoint in other Cisco Unified CM cluster, Voice Gateway or 3rd Party [IP]PBX to be able to display the alerting or connected number in format such as DID or E164 number.

For connected party transformations support, the SIP Trunk (all Service Types) is enhanced by adding following configurations:-

1. On SIP Trunk device configuration pages:-

```
--Inbound Calls-----
--Connected Party Settings-----
-Connected Party Transformation CSS [DropDown]
- [ ] Use Device Pool Connected Party Transformation CSS
```

2. On Device Pool configuration pages, new configuration for:-

```
--Call Routing Information-----
--Connected Party Settings-----
- Connected Party Transformation CSS [DropDown]
```

Q.735 MLPP over SIP Trunk

CUCM currently provides MLPP capability over the SIP Trunk for DSN/DRSN namespaces as defined by RFC4412; however it is geared to DoD requirements. The German Army uses MLPP based on I.255.3/Q.735.3 and Q.955.3. With this feature we will support the registered namespace Q735. As done for DSN/DRSN, CUCM will continue using the "Resource-Priority" header as specified in RFC4412 to signal the call precedence using the values defined in the RFC. This has been covered in [MLPP, page 1-43](#) of this document.

Call preemption will continue to be signaled using the preemption values for the SIP Reason header as specified by RFC4411 and as covered in [MLPP, page 1-43](#). No changes are made in this area.

Troubleshooting

[Table 1-30](#) highlights some of the common problems that might be encountered when you are configuring a SIP trunk.

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration**

Symptom	Possible Cause	Recommended Action
Cannot receive or make calls through a SIP trunk.	The SIP trunks are not initialized because the OL-20951-01 process is not part of a OL-20951-01 Group.	Associate the OL-20951-01 to a OL-20951-01 Group. 1. In OL-20951-01 Administration, choose System > OL-20951-01 Group. 2. Click Find and choose a group name (such as Default). 3. Make sure that the OL-20951-01 appears under the “Selected OL-20951-01s” section. The following example SDL logs illustrate how a SIP trunk fails initialization because the OL-20951-01 node is not a member of a OL-20951-01 Group: <pre> SIPD(1,100,76,1) SIPInit(1,100,73,1) NumOfCurrentInstances: 1 000000561 2005/07/20 12:54:17.598 001 SdlSig Start start SIPD(1,100,76,1) SIPD(1,100,76,1) (1,100,76,1).1-(*:*) [R:HP - HP: 0, NP: 0, LP: 0, VLP: 0, LZP: 0 DBP: 0] 000000562 2005/07/20 12:54:17.598 001 SdlSig DbSIPtspReq initializing Db(1,100,160,1) SIPD(1,100,76,1) (1,100,76,1).1-(*:*) [NP-PQ: 0] 000000563 2005/07/20 12:54:17.620 001 SdlSig DbSIPtspRes tsp_discovery SIPD(1,100,76,1) Db(1,100,160,1) (1,100,76,1).1-(*:*) [R:NP - HP: 0, NP: 0, LP: 0, VLP: 0, LZP: 0 DBP: 0] 000000564 2005/07/20 12:54:17.621 001 SdlSig DbSimpleDeviceServerReq initializing Db(1,100,160,1) SIPD(1,100,76,1) (1,100,76,1).1-(*:*) [NP - PQ: 0] 000000565 2005/07/20 12:54:17.636 001 SdlSig DbSimpleDeviceServerRes device_server_discovery SIPD(1,100,76,1) Db(1,100,160,1) (1,100,76,1).1-(*:*) [R:NP - HP: 0, NP: 0, LP: 0, VLP: 0, LZP: 0 DBP: 0] 000000566 2005/07/20 12:54:17.636 001 Stopping SIPD(1,100,76,1) SIPD(1,100,76,1) NumOfCurrentInstances: 1 000000567 2005/07/20 12:54:17.637 001 Stopped SIPD(1,100,76,1) SIPD(1,100,76,1) NumOfCurrentInstances: 0 000000568 2005/07/20 12:54:17.637 001 SdlSig DeviceStop</pre>
The UAS may reject all outbound calls associated with a SIP trunk with a 4xx response, or signaling may go through, but no audio path gets detected.	Unusual third-party SIP UA might not support delayed media INVITE.	The SIP trunk default configuration results in sending INVITE (without SDP). This definition prevents the use of an MTP resource. Cisco recommends that you leave the “MTP Required” checkbox on the SIP trunk configuration page unchecked; however, if third-party devices do not support delayed media INVITE requests, you can check this box. You must reset the SIP trunk for the change to take effect.

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
DTMF digits do not get sent to the remote SIP device such as a Unity Voice Messaging server.	This could represent an interoperability issue. The SIP trunk supports RFC2833 and Out-of-Band methods when sending DTMF tones across the network. - Most SIP devices support RFC2833. - The supported OOB methods are KPML and Unsolicited Notify. KPML is not widely used in the marketplace at this time. Currently, the only known products supporting KPML are the Cisco TNP phones, OL-20951-01, and Cisco IOS Gateway (12.4 and later). Unsolicited Notify is a Cisco proprietary method that is used only on Cisco IOS Gateways (12.2 and later?). Unity does not support either one at this time but might support KPML in the future. If you are connecting Unity to OL-20951-01 via SCCP, OOB is assumed.	Check whether an MTP resource is allocated for the call: • If both parties have at least one common DTMF method, an MTP is <i>not</i> required. • If one party only supports the Out-of-Band method, but the other party only supports RFC2833, an MTP is required. For RFC2833 DTMF events, verify that the media stream (via Sniffer) contains packets with the DTMF Payload Type value. For OOB, incoming or outgoing NOTIFY messages get captured in the OL-20951-01 trace file. the following example shows Subscribing for DTMF-KPML: <pre> SUBSCRIBE sip:172.18.199.61:5060 SIP/2.0 Via: SIP/2.0/UDP 172.18.199.62:5060;branch=z9hG4bK1BD From: <sip:3601@172.18.199.62>;tag=169AEB4-93D To: "sccp_3000" <sip:3000@172.18.199.61>;tag=520767e3-a20b-488e-9ca2-3b1506ab9e94-24577005 Call-ID: 47b5f280-2de1b302-3fc-3dc712ac@172.18.199.61 CSeq: 101 SUBSCRIBE Max-Forwards: 70 Date: Wed, 20 Jul 2005 20:24:36 GMT User-Agent: Cisco-SIPGateway/IOS-12.x Event: kpml Expires: 7200 Contact: <sip:3601@172.18.199.62:5060> Content-Type: application/kpml-request+xml Content-Length: 327 <?xml version="1.0" encoding="UTF-8"?><kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0"><pattern persist="persist"><regex tag="dtmf">[x*#ABCD]</regex></pattern></kpml-request> SIP/2.0 200 OK Via: SIP/2.0/UDP 172.18.199.62:5060;branch=z9hG4bK1BD From: <sip:3601@172.18.199.62>;tag=169AEB4-93D To: "sccp_3000" <sip:3000@172.18.199.61>;tag=520767e3-a20b-488e-9ca2-3b1506ab9e94-24577005 Call-ID: 47b5f280-2de1b302-3fc-3dc712ac@172.18.199.61 CSeq: 101 SUBSCRIBE Content-Length: 0 Contact: <sip:172.18.199.61:5060> Expires: 3600 </pre>

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
DTMF digits do not get sent to the remote SIP device (continued)		The following example shows an outbound KPML NOTIFY message: <pre>NOTIFY sip:3010@172.18.199.92:5060 SIP/2.0 Via: SIP/2.0/UDP 172.18.199.61:5060;branch=z9hG4bK48b28f9b From: <sip:3010@172.18.199.61>;tag=520767e3-a20b-488e-9ca2-3b1506ab9e94-26499709 To: <sip:3501@172.18.199.92>;tag=1A60AE98-324 Call-ID: 4724DD80-FC6211D9-8190EC13-60F39CA2@172.18.199.92 CSeq: 103 NOTIFY Max-Forwards: 70 Date: Mon, 25 Jul 2005 16:45:29 GMT User-Agent: Cisco-CCM5.0 Event: kpml Subscription-State: active;expires=3600 Contact: <sip:172.18.199.61:5060> Content-Type: application/kpml-response+xml Content-Length: 177 <?xml version="1.0" encoding="UTF-8" standalone="no" ?> <kpml-response code="200" digits="1" forced_flush="false" suppressed="false" tag="dtmf" text="Success" version="1.0"/></pre> The following example shows negotiating Unsolicited NOTIFY request: <pre>INVITE sip:3501@172.18.199.92:5060 SIP/2.0 Call-Info: <sip:172.18.199.61:5060>;method="NOTIFY;Event=telephone-event;Duration=500" Response: SIP/2.0 200 OK Call-Info: <sip:172.18.199.92:5060>;method="NOTIFY;Event=telephone-event;Duration=500"</pre> The following example shows an outbound Unsolicited NOTIFY message: <pre>07/26/2005 14:15:18.658 CCM Outgoing UDP SIP message to 172.18.199.92:[57475]: NOTIFY sip:172.18.199.92:57475 SIP/2.0 Via: SIP/2.0/UDP 172.18.199.61:5060;branch=z9hG4bK66516ae9 From: "sccp_3010" <sip:3010@172.18.199.61>;tag=520767e3-a20b-488e-9ca2-3b1506ab9e94-26499723 To: <sip:3501@172.18.199.92>;tag=1FD98A34-1DC0 Call-ID: 314ae380-2e617dac-325-3dc712ac@172.18.199.61 CSeq: 102 NOTIFY Max-Forwards: 70 Date: Tue, 26 Jul 2005 18:15:18 GMT User-Agent: Cisco-CCM5.0 Event: telephone-event;rate=1000 Subscription-State: active;expires=-1281397684 Contact: <sip:172.18.199.61:5060> Content-Type: audio/telephone-event Content-Length: 4</pre>

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
UAS responds to an INVITE request with a 401 (Unauthorized) message.	Authentication or Authorization is failing	If authentication or authorization are not needed, make sure the appropriate check boxes on the SIP Trunk Security Profile window are unchecked. or Configure the application user on OL-20951-01 with proper authorization. Configure the UAC to match credentials on OL-20951-01. <pre> INVITE sip:5000@172.18.193.222 SIP/2.0 Via: SIP/2.0/UDP 172.18.194.208:5060;branch=z9hG4bK5ba60c17 From: "4900" <sip:4900@172.18.193.222>;tag=000f24c6a16f000d171bb590-611445d9 To: <sip:5000@172.18.193.222> Call-ID: 000f24c6-a16f000c-245cb98c-57a622e0@172.18.194.208 SIP/2.0 401 Unauthorized From: "4900" <sip:4900@172.18.193.222>;tag=000f24c6a16f000d171bb590-611445d9 To: <sip:5000@172.18.193.222>;tag=466540560 Call-ID: 000f24c6-a16f000c-245cb98c-57a622e0@172.18.194.208 CSeq: 101 INVITE WWW-Authenticate: DIGEST realm="siptrunk41", nonce="YoK5FiEuXpeIlp52EnUWFLIU1m24t5gV", algorithm=MD5 Content-Length: 0 </pre>
UAS responds to a SIP request with a 403 (Forbidden) message.	In the System->Security Profile->SIP Security Profile window, and per the default settings, the following features require authorization: - Presence Subscription - OOD REFER - Unsolicited NOTIFY - INVITE and REFER w/ Replaces header	If authentication or authorization are not needed, make sure the appropriate check boxes on the SIP Trunk Security Profile window are unchecked. or Configure the application user on OL-20951-01 with proper authorization. Configure the UAC to match credentials on OL-20951-01. <pre> INVITE sip:5000@172.18.193.222:5060 SIP/2.0 Via: SIP/2.0/UDP 172.18.195.83:5060 From: sipp <sip:sipp@172.18.195.83:5060>;tag=1 To: sut <sip:5000@172.18.193.222:5060> Call-ID: 1-21473@172.18.195.83 Cseq: 1 INVITE Replaces: 425928@bobster.example.org;to-tag=7743;from-tag=6472 SIP/2.0 403 Forbidden Via: SIP/2.0/UDP 172.18.195.83:5060 From: sipp <sip:sipp@172.18.195.83:5060>;tag=1 To: sut <sip:5000@172.18.193.222:5060>;tag=673966968 Date: Tue, 5 Jul 2005 18:25:02 GMT Call-ID: 1-21473@172.18.195.83 CSeq: 1 INVITE Content-Length: 0 </pre>

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
UAS responds to a SIP request with a 404 Not Found message.	Digit analysis failed to find the device or a route for the called number.	This could happen for many reasons. If the phone with the dialed number is not registered, or if the host in the request does not match the OL-20951-01 host or IP address and there is no SIP route pattern to route this number or DN, Digit Analysis will fail.
Potential problems with forking exist. Downstream SIP endpoints do not receive ACK to responses.	Not actually a problem. The SIP trunk does not support downstream forking for delayed media INVITE (w/o SDP).	If downstream forking support is required, the SIP trunk must use an MTP. Make sure the "MTP Required" check box is checked on the SIP trunk configuration window.
TLS connection for SIP trunk fails with "HandleSSLError - TLS protocol error..." in SDI log (ccmtrace).	TLS SIP trunk peer X509 certificate has not been imported into the local OL-20951-01 trust store or is the incorrect version.	Ensure that the peer X509 certificate is version 3 and has been properly imported into the local OL-20951-01 trust store.
TLS connection for SIP trunk fails with a 'ConnectionFailure' alarm on the TLS SIP trunk.	X509 Certificate validation failed for the TLS SIP trunk peer.	Possible problems include X509 Subject Name mismatch or cipher string mismatch. Check the SDL log for more detailed logs under 'validTLSConnection' log. Reason code 1 – Got X509 certificate for neither Authenticate or Encrypted trunk. (Should not happen.) Reason code 2 – X509 Subject Common Name (CN=) mismatch with the trunk security profile settings. Reason code 3 – TLS cipher string mismatch. (The trunk security profile 'Device Security Mode' settings determine this.)
TLS connection from CSPS to OL-20951-01 via SIP fails with '416 Unsupported URI Scheme' or fails following a '301 Redirect' message.	OL-20951-01 does not support SIPS URI handling, and CSPS will not complete a TLS connection without SIPS URI support.	Do not use SIP TLS connections between CSPS and OL-20951-01.
No Diversion header exists in the outgoing INVITE message when the call is forwarded	The SIP trunk configuration option "Redirecting Diversion Header Delivery - outbound" does not get checked.	Make sure that the "Redirecting Diversion Header Delivery - outbound" is checked.
Although an end user is associated with primary extension and phone, no PUBLISH comes out.	The preceding configuration applies for SUB/NOT based presence. It does not get used for PUBLISH.	Associate the user to the line appearance in the phone number configuration window.

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
Although an end user is associated to a line appearance, no PUBLISH comes out.	PUBLISH will not get sent for the line appearance if its associated user does not have a Cisco Unified Presence license.	Assign a Cisco Unified Presence license to that user.
REFER (method=BYE) does not terminate the call in a multinode OL-20951-01 cluster.	Refer Manager cannot find the dialog to terminate.	Make sure REFER(method=BYE) comes into the same node as the node that receives REFER(method=INVITE), for the same call.
Troubleshooting Calling Party Number Transformations feature	Troubleshooting Calling Party Number Transformations feature	There are a few detailed level SDI trace line that will help us find the number Prefixed and the number of digits striped, and the CSS applied. Example Stripping/Prefixing Digits, CSS: <pre> 12/17/2008 00:43:18.826 CCM //SIP/SIPCdpc(0,0,0)/ci=0/ccbId=0/scbId=0/globalize: Performing stripAndPrependDigits --- Prefix data = +1, Strip Data = 1 <CLID::StandAloneCluster><NID::rtp-galaxy><LVL::Detailed><MAS K::20000> 12/17/2008 00:43:18.826 CCM SPROC :: stripAndPrependDigits- The number 4089023019 is prepended with prefix +1, updated number=+14089023019 <CLID::StandAloneCluster><NID::rtp-galaxy>< LVL::Detailed><MASK::ffffff> 12/17/2008 00:43:18.826 CCM //SIP/SIPCdpc(0,0,0)/ci=0/ccbId=0/scbId=0/globalize: CallingNumber after stripAndPrependDigits +14089023019 12/17/2008 00:58:54.923 CCM //SIP/SIPCdpc(0,0,0)/ci=0/ccbId=0/scbId=0/globalize: Using Calling CSS 57803b7e-1bcc-b0d7-da08-f023c78dd179 <CLID::StandAloneCluster>< NID::rtp-galaxy><LVL::Detailed><MASK::20000> </pre>
Calls using SRTP over non secure trunk don't behave correctly.	OL-20951-01 down grades to RTP (i.e. AVP)	Check if endpoint on the far end of the trunk indicates support for SAVP in the SDP.
Calls using SRTP over non secure trunk don't behave correctly.	OL-20951-01 down grades to RTP (i.e. AVP)	Check if other call leg (e.g. perhaps a line side endpoint) on OL-20951-01 supports SRTP.
Calls using SRTP over non secure trunk don't behave correctly.	OL-20951-01 down grades to RTP (i.e. AVP)	Check if OL-20951-01 had to insert an MTP (e.g. due to codec mismatch for example).
Calls using SRTP over non secure trunk don't behave correctly.	OL-20951-01 disconnects call during setup.	Check if endpoint on the other side of the trunk indicates support for X-cisco-srtp-fallback but the call requires RTP for other reasons (see problems above).
G.Clear calls not working for SIP line/trunk to MGCP GW T1/E1 PRI	Call drops due to media mismatch.	Check if G.Clear codec was offered by SIP leg.

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
G.Clear calls not working for SIP line/trunk to MGCP GW T1/E1 PRI	Call drops due to media mismatch.	Check if "Enable G.Clear" checkbox is checked on the MGCP PRI.
G.Clear calls not working for SIP line/trunk to MGCP GW T1/E1 PRI	Call rejected by PSTN/PBX with incompatible destination (88).	Check if ISDN setup from MGCP GW to PBX/PSTN has bearer cap set to 0x8890.
G.Clear calls not working for SIP line to SIP line/trunk	INVITE without G.Clear SDP going out.	Check if G.Clear codec was offered by SIP leg.
G.Clear calls not working for SIP line to SIP line/trunk	INVITE without G.Clear SDP going out	Check if SIP Profile for both the legs have "Enable Early Offer for G.Clear" enabled.
G.Clear calls not working for SIP line to SIP line/trunk	G.Clear call rejected with 488 Incompatible Media	Check if the terminating device supports G.Clear codec / data calls. Cisco IP Phones do not support G.Clear codec.
Logical Partitioning feature not working	Logical Partitioning feature not working	• Check if Enterprise Param "Enable Logical Partitioning" is True. • Check that the device is associated with a valid Geolocation at device or device pool level. • Check that the device is associated with a valid Geolocation filter, having selection of some of the Geolocation fields, at device or device pool level. • When Enterprise Param "Logical Partitioning Default Policy" is DENY, check if ALLOW LP policies between GeolocationPolicy of a Gateway & VoIP site configured. • Make sure case is correct for fields of the LP GeolocationPolicy records and match with that configured for Geolocation records. • There is no LP Policy check for VoIP to VoIP device call or feature with only VoIP participants. • The OL-20951-01 Admin will allow configuring policies between Interior:geolocpolicyX to Interior:geolocpolicyY but it will not be used during LP checks. • Hierarchy is important for fields of Geolocation 1. Say searching for policy between Border:IN:KA and Interior:IN:KA 2. The following possible policies will match in order • The possible policies that lack some of the fields in hierarchy, such as following will not match: – Border:KA – Interior:KA – Border:BLR

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
		– Interior:BLR – Border:KA:BLR – Interior:KA:BLR – Note: Country=IN is missing
IPv6 calls not working	IPv6_only phones are not able to register with OL-20951-01	• Verify that IPv6 has been enabled on the OL-20951-01 server using platform CLI. • Verify that "Enable IPv6" enterprise parameter is set to True. • Verify Server IPv6 Name has been configured with either the hostname or the IPv6 address. If configured for hostname, verify that phone has been configured with a DNS address to resolve hostname to an IPv6 address. • Verify that OL-20951-01 host only has 1 non link-local IPv6 address. • If the phone will get an IPv6 address via RA, verify that "Allow Auto Configuration for Phone" enterprise parameter is set to ON. • Verify OL-20951-01 and Cisco TFTP services are running.
IPv6 calls not working	Incoming calls on V6_only SIP Trunk are not answered	• Verify that IPv6 has been enabled on the OL-20951-01 server using CLI. • Verify that "Enable IPv6" enterprise parameter is set to True. • Verify that the INVITE does not contains IPv4 signaling.
IPv6 calls not working	Outgoing calls on V6_only SIP Trunk are not answered	• Verify that IPv6 has been enabled on the OL-20951-01 server using CLI. • Verify that "Enable IPv6" enterprise parameter is set to True. • Verify that an IPv6 address is configured on the SIP Trunk configuration page.
IPv6 calls not working	Calls between two endpoint fails	Verify the addressing modes of the endpoints. If one is configured for IPv4_only and the other is configured for IPv6_only, ensure that a dual stack MTP is available to do the media translation.
IPv6 call no MOH is heard	No MOH is heard	• Verify the addressing modes of the endpoint to which MOH is played. If the addressing mode is IPv6_only and MOH is configured for unicast, ensure that a dual stack MTP is available. • If MOH is configured for multicast, the expected behavior is that no MOH will be heard on the IPv6_only phones.
Fax works but no midcall INVITE with T.38 SDP is seen.	T38fax configuration issue.	T.38 fax relay is not being used for fax transmission. • For SIP and H.323 gateways, verify that the T.38 fax is enabled under VOIP dial-peer. • For MGCP gateway, verify fxr-package is enabled. Verify that "mgcp fax t38 inhibit" is not enabled.

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
Fax call fails as the initial INVITE transaction is rejected with 580 or 488.	T38fax configuration issue.	Check the locations page on both clusters and verify that the qos is enabled between the SIP trunk and endpoint. Verify that the media resources like MTP(enabled for RSVP) are configured on the endpoint's media resource group. Verify that the devices are registered with CUCM.
Initial INVITE is rejected with 420 Bad extension	End to end RSVP is not configured correctly.	If the unsupported: preconditions is seen in 420, verify that the SIP trunk is configured for E2E RSVP and PRACK is enabled on the cluster that is rejecting the call attempt.
Mid call INVITE with T.38 SDP is rejected with 488.	T38fax problem	Verify that the endpoint supports fax i.e. not an IP Phone. Verify that the endpoint is configured to support fax. See the CLI commands for the gateways.
After tandem/remote transfer, the final call is no longer E2E RSVP call.	End to end RSVP is not configured correctly.	In the transferring node, make sure the RSVP policy is activated for locations the inbound and outbound SIP Trunks assigned to.
When the call is put on hold, no E2E RSVP between the MOH server and held party.	End to end RSVP is not configured correctly.	In the holding cluster, make sure the MOH's device pool has MRGL that has the RSVP agents assigned. Also make sure RSVP policy is activated for locations the MOH server and SIP Trunks assigned to.
When the device in campus (Hub_none location) is making a call, no E2E RSVP.	End to end RSVP is not configured correctly.	Make sure RSVP policy is activated between Hub_none location and location that the SIP Trunk assigned to.
When the conference call is invoked, no E2E RSVP between the Conference Bridge and remote conference participants.	End to end RSVP is not configured correctly.	In the Conference invoked cluster, make sure the Conference Bridge's device pool has MRGL that has the RSVP agents assigned. Also make sure RSVP policy is activated for locations the Conference Bridge and SIP Trunks assigned to.
When a call is blind transferred to a remote system, no E2E RSVP between the Annunciator and calling phone.	End to end RSVP is not configured correctly.	In the Transferring cluster, make sure the Annunciator's device pool has MRGL that has the RSVP agents assigned. Also make sure RSVP policy is activated for locations the Annunciator and SIP Trunks assigned to.
The original call between agent and customer is non secure. However, the non secure supervisor received reorder when trying to monitor the agent	Agent security is not configured correctly.	Check the secure capability of the agent. If the agent is encrypted, this scenario works as designed. The supervisor needs to meet or exceed the agent's secure capability in order for the monitoring call to be successful.

CISCO CONFIDENTIAL**Table 1-30** **Troubleshooting SIP Trunk Configuration (continued)**

Symptom	Possible Cause	Recommended Action
When conference is started during secure monitoring, the secure icon display is incorrect	Hardware problem	Check if using hardware conference bridge or default (SW) conference bridge. SW conference bridge does not support security.
While using 7970/71 phones, if auto recording is enabled on these, we are unable to start a conference call	Codec negotiation problem	7970/71 phones offer/negotiate G.722 codec by default unless it is disabled. During recording, the codec is locked to be the same as the original call between the customer and agent. If using SW conference bridge with limited codec support, a transcoder maybe needed to complete the conference call. As alternative options, G.722 codec can be disabled on the agent phone or HW conference bridge which supports G.722 codec can be used.
The agent is secure and the recorder is secure. Auto recording is enabled on the agent. However, the CUCM does not send invite to the recorder	Network topology issue.	The SIP Trunk connected to the recorder needs to be secure as well for CUCM to send INVITE to the recorder. No MTP should be inserted on the SIP Trunk between agent and recorder (since MTP does not support security).
The agent is authenticated. Recording does not start on this agent	Configuration issue.	CUCM does not support recording on authenticated phones.



CHAPTER 2

SIP Trunk Call Flows

This chapter describes the new and modified SIP trunk call flows for OL-22509-01 Release 8.5(1). It shows the interfaces and interactions between OL-22509-01 and SIP networks for basic calls and supplementary services. The new features and enhancements that are introduced in this release do not impose any backward compatibility implications on previous versions of the SIP trunk.



Tip

A few SIP devices are not SIP compliant, and therefore, they do not support delayed media (INVITE without SDP). To interoperate with these types of devices, the SIP trunk that is associated with these devices must have MTP enabled.

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This document captures the callflows introduced/modified in 8.0 involving the SIP Trunk.

This document contains a number of SIP call flows. Each one has the same format:

1. A description for the scenario that describes what is happening from the various phone user's perspective.
2. The Message Sequence Charts (MSCs) including phones and Unified CM nodes involved in the various SIP transactions. Each MSC uses the following conventions:
 - a. Each message is preceded by a dialog identifier and message number relative to the scenario. For example "(d2) [3] INVITE..." indicates that the INVITE is the third message in the sequence and is in the second dialog. Other messages in the same dialog will also have (d2) at the beginning. Also, the message link color is the same for all messages within a dialog.
 - b. Phones are named with letters. For example, Phone A.
 - c. Nodes in the MSC presenting phones will be labeled with the phone letter and the line number. For example, A 1100 represents line 1100 on phone A.
3. The detailed SIP messages associated with the MSC.

Each message arrow is clickable. Clicking a message arrow will cause the document to jump to the detailed message. Clicking [diagram] above the message will cause the document to jump back to the page with MSC that contains that message.

**Note**

All the callflows captured in this document are just for understanding purposes. Message flows might be different in real deployment due to other configuration changes. These message callflows cannot be considered AS IS for interop with 3rd party servers.

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1. BasicCall
 - 1.1 Basic Incoming Call
 - 1.2 Basic Outgoing Call
 - 1.3 Basic Early Offer Call via an Inter Cluster SIP Trunk
 - 1.4 Basic Call to a SCCP Device via an Inter Cluster SIP Trunk
 - 1.5 Basic Call to a SIP Device via an Inter Cluster SIP Trunk
 - 1.6 Basic Call to a SCCP Device via an Inter Cluster SIP Trunk Using a FQDN as the destination address in the SIP Trunk configuration
 - 1.7 Basic Call to a SCCP Device via an Inter Cluster SIP Trunk using an SRV record as the destination address in the SIP Trunk configuration
 - 1.8 Basic Hold-resume Call via a SIP Trunk to a SIP Proxy
 - 1.9 Basic Hold-resume Call via an Inter Cluster SIP Trunk
 - 1.10 Basic Conference Call via an Inter Cluster SIP Trunk
2. DTMF
 - 2.1 Call between Cisco Unified CM SCCP Phone and SIP Gateway using OOB Notify
 - 2.2 Call between Cisco Unified CM SCCP Phone and SIP Gateway using KPML
 - 2.3 Call between Cisco Unified CM SCCP Phone and SIP Gateway using RFC2833
3. Presence
 - 3.1 Outgoing Presence Subscription
 - 3.2 Incoming Presence Subscription
 - 3.3 Incoming Presence Forbidden for Authorization Failure
4. Transfer
 - 4.1 Basic Attended Transfer Call via an Inter Cluster SIP Trunk
 - 4.2 Basic Early Transfer Call via an Inter Cluster SIP Trunk
 - 4.3 Attended Transfer Call using the Cisco Unified CM SIP Trunk
 - 4.4 Early Attended Transfer To SIP Proxy via Cisco Unified CM SIP Trunk
5. Update
 - 5.1 Early Transfer Call to SIP Gateway No PRACK via Cisco Unified CM SIP Trunk
 - 5.2 Early Transfer Call to SIP Gateway with PRACK via Cisco Unified CM SIP Trunk
6. TLS
 - 6.1 TLS Rejection with X509 Subject Name Mismatch
 - 6.2 TLS Basic Incoming Call
7. T38
 - 7.1 SIP Trunk Passes through T38 Fax Call between SIP Gateways
8. SipsUri

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8.1 Incoming SIPS URI Request Redirected by Cisco Unified CM

8.2 Incoming SIPS URI Request Rejected by Cisco Unified CM

9. Info

9.1 SIP Video Call Using INFO Method

10. MWI

10.1 MWI Status via Unsolicited NOTIFY

11. Prack

11.1 Outbound Early Media Call with PRACK

11.2 Outbound Delayed Media Call with PRACK

12. CallPreservation

12.1 Session Timers Negotiation & Refresh for the Sip Trunk Call on "Cisco Unified CM"

12.2 Sip Trunk Call Preservation when "Cisco Unified CM" is the "Non-Refresher"

12.3 Sip Trunk Call Preservation when "Cisco Unified CM" is the "Refresher"

13. 3xx

13.1 Incoming 3xx Redirection

14. Authentication-Authorization

14.1 Unified CM gets Authenticated as UAC

14.2 Unified CM Authenticates Incoming Request

15. ACL

15.1 Access Control List, Deny Presence Subscription

15.2 Access Control List, Deny Out of Dialog REFER

15.3 Access Control List, Deny Unsolicited NOTIFY

15.4 Access Control List, Deny INVITE with Replaces Header

15.5 Access Control List, Deny REFER with Replaces Header

16. RSVP

16.1 Outgoing RSVP Call through SIP Trunk

17. Publish

17.1 Basic PUBLISH Operations

17.2 PUBLISH with Shared Line, A Holds and B Resumes

17.3 PUBLISH with Shared Line, A Holds and B Selects

17.4 PUBLISH Support for Mobility

17.5 PUBLISH Support for DND

18. G.729

18.1 Establish G.729a with No MTP

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- 18.2 Establish G.729 with MTP
- 18.3 Delayed Media Call with No MTP
- 18.4 Delayed Media Call No Support

- 19. PAI
 - 19.1 Basic Outgoing Call with default identity configurations on SIP Trunk
 - 19.2 Basic Outgoing Call with identity in only From header
 - 19.3 Basic Outgoing Call with only Remote-Party-Id
 - 19.4 Basic Outgoing Call with identity in P-Preferred-Identity header.
 - 19.5 Basic Incoming SIP TrunkCall, sending 180/200 with Asserted-Identity & Privacy:id
 - 19.6 Incoming SIP TrunkCall, sending identity in Asserted-Identity with Privacy:none
 - 19.7 Basic Incoming SIP TrunkCall
 - 19.8 Incoming SIP TrunkCall, sending 180, 200 without any identity headers
 - 19.9 Basic Incoming SIP TrunkCall, sending PPI in outgoing 180/200
 - 19.10 Mid-Call UPDATE for Display identity change using Asserted-Identity.
 - 19.11 Mid-Call UPDATE for Display identity change with P-Preferred-Identity
 - 19.12 Incoming OOB REFER request for performing a click to call scenario.
 - 19.13 Basic Outgoing Call with Asserted-Identity & Privacy:id headers.
 - 19.14 Basic Outgoing Call with an identity in Asserted-Identity header & Privacy: id;critical
 - 19.15 Basic Outgoing Call with identity in Asserted-Identity & Privacy:none

- 20. MLPP
 - 20.1 MLPP Basic Call

- 21. V.150.1
 - 21.1 Basic Call with V.150.1 virtual codec

- 22. T38Fax-interop-with-MSExchange
 - 22.1 T38 Interop with MS Exchange

- 23. MMoH
 - 23.1 Basic Hold-resume Call via an SIP ICT with MMOH enabled

- 24. IPv6
 - 24.1 Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv4
 - 24.2 Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv6
 - 24.3 Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv6, media IPv4
 - 24.4 Inbound Delayed media call using IPv6 only SIP Trunk
 - 24.5 Outbound early offer call using IPv6 only SIP Trunk
 - 24.6 Outbound delayed offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv4
 - 24.7 Outbound delayed offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv6, terminating phone IPv6 only

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- 24.8 Outbound early offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv4
- 24.9 Outbound IPv4 call to an IPv6 trunk results in a 503
- 24.10 Outbound IPv6 call to an IPv4 trunk results in a 503
- 25. CallingPartyTransformations
 - 25.1 Define number of digits to be prefixed, stripped for Unknown Number Type on Service Parameter page
 - 25.2 Define number of digits to be prefixed, stripped for Unknown Number Type on trunk device page
 - 25.3 Define Calling Party Transformation CSS for Unknown Number on Trunk Device Page
 - 25.4 Define both Stripping/Prefixing and Calling Party Transformation CSS for Unknown Number on Device Pool Page
- 26. MLPP Q735
 - 26.1 MLPP Q735 Namespace Call
- 27. ConnectedPartyTransformations
 - 27.1 Connected Party number transformation
- 28. EarlyOffer
 - 28.1 Basic Call from SCCP legacy to a SCCP TNP Device
 - 28.2 Basic Call from SCCP TNP to a SCCP TNP Device
 - 28.3 Basic Call from a secure SCCP TNP to a SCCP TNP Device
 - 28.4 Send Call to Mobile call to a SCCP phone
 - 28.5 SNR call from a SIP 7940 Device
 - 28.6 Video Call from SIP 9971 to a SIP 9971 Device
 - 28.7 Attended Transfer for a call between SIP phone and a SCCP TNP Device
 - 28.8 Early Attended Transfer For a call between SIP phone and a SCCP TNP Device
 - 28.9 Hold and Resume for a call between SIP phone and a SCCP TNP Device
 - 28.10 Basic Call from SIP to a SCCP TNP Device
- 29. OptionsPing
 - 29.1 SIP OPTIONS Ping with 200 response
 - 29.2 SIP OPTIONS Ping with 503 response
- 30. QSIGTunnelingOverSIPT
 - 30.1 Basic Call Via QSig Enabled
 - 30.2 Callback Busy
 - 30.3 Callback No Answer
 - 30.4 Call Forward with Path Replacement
 - 30.5 Call Transfer with Path Replacement enabled
- 31. StaticCallRouting

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31.1 Failover with multiple destination addresses configured on a SIPTrunk

32. H264VideoTelepresenceFor3rdPartyEP

32.1 Basic Call from RT(SIP) to Polycom (SIP)

32.2 Basic Call from Polycom HD (SIP) to Tandberg HD (SIP)

32.3 Basic Call from Tandberg HD to Tandberg HD

32.4 Basic Call from Polycom RT(SIP) to Tandberg (SIP)

CISCO CONFIDENTIAL**1. BasicCall****1.1 Basic Incoming Call**

Title: Basic Incoming Call

Description:

The following basic call flow illustrates the SIP messaging when the SIP trunk is acting as a UAS.

Unified CM1 received an INVITE via the SIP Trunk.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has route pattern 1.XXXX

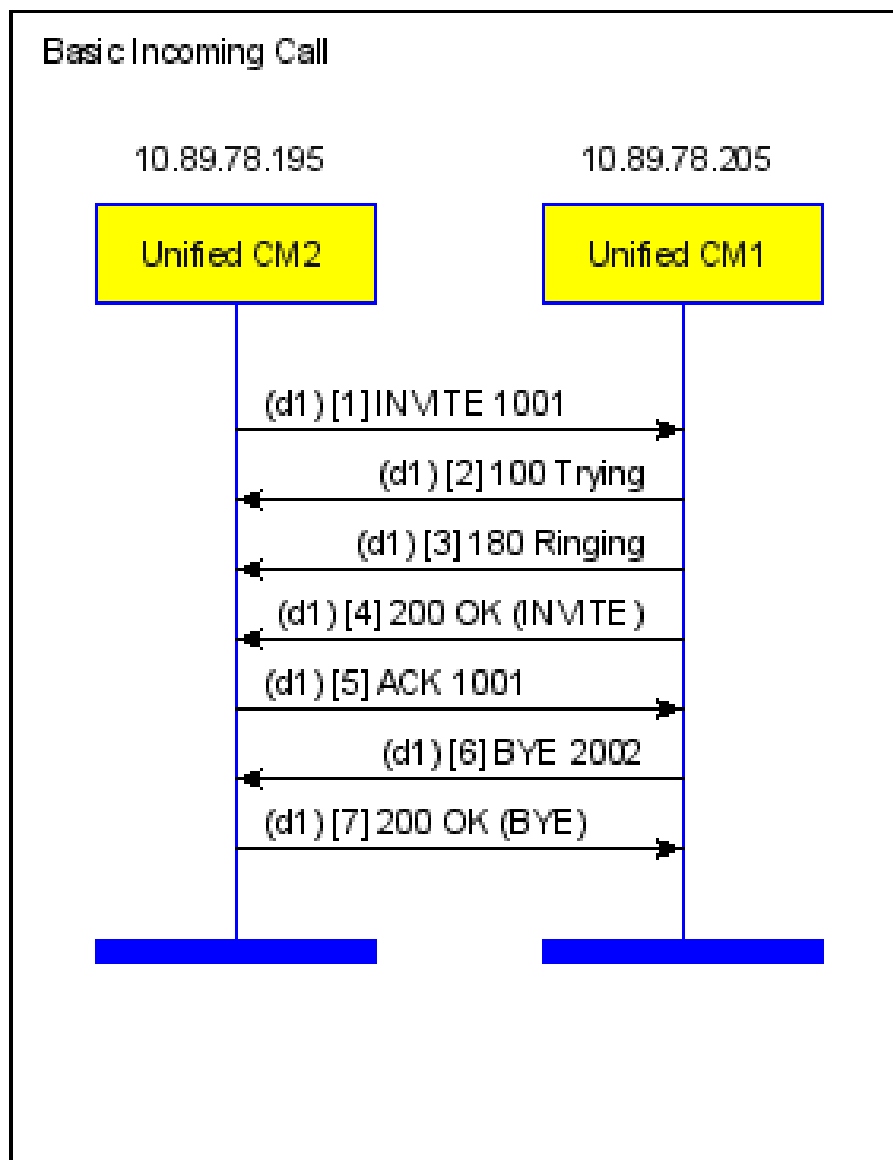
Scenario:

Phone B DN 2002 calls Phone A DN 1001 over the SIP Trunk by dialing 11001

Phone A DN 1001 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK302b8803f1
 From: <sip:2002@10.89.78.195>;tag=667~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009131
 To: <sip:1001@10.89.78.205>
 Date: Thu, 28 Oct 2010 15:53:30 GMT
 Call-ID: 8136fe80-cc919c7a-16-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2167864960-0000065536-0000000005-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK302b8803f1
 From: <sip:2002@10.89.78.195>;tag=667~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009131
 To: <sip:1001@10.89.78.205>
 Date: Thu, 28 Oct 2010 15:53:30 GMT
 Call-ID: 8136fe80-cc919c7a-16-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK302b8803f1
 From: <sip:2002@10.89.78.195>;tag=667~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009131
 To: <sip:1001@10.89.78.205>;tag=43-164963e8-a2d4-4fce-a700-197c5e73cfc1-16935218
 Date: Thu, 28 Oct 2010 15:53:30 GMT
 Call-ID: 8136fe80-cc919c7a-16-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK302b8803f1
 From: <sip:2002@10.89.78.195>;tag=667~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009131
 To: <sip:1001@10.89.78.205>;tag=43-164963e8-a2d4-4fce-a700-197c5e73cfc1-16935218
 Date: Thu, 28 Oct 2010 15:53:30 GMT
 Call-ID: 8136fe80-cc919c7a-16-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 25142 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[5] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK31949f4b2
From: <sip:2002@10.89.78.195>;tag=667~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009131
To: <sip:1001@10.89.78.205>;tag=43~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935218
Date: Thu, 28 Oct 2010 15:53:30 GMT
Call-ID: 8136fe80-cc919c7a-16-c34e590a@10.89.78.195
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 19026 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK281625f7e9
From: <sip:1001@10.89.78.205>;tag=43~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935218
To: <sip:2002@10.89.78.195>;tag=667~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009131
Date: Thu, 28 Oct 2010 15:53:34 GMT
Call-ID: 8136fe80-cc919c7a-16-c34e590a@10.89.78.195
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 101 BYE
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[7] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK281625f7e9
From: <sip:1001@10.89.78.205>;tag=43~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935218
To: <sip:2002@10.89.78.195>;tag=667~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009131
Date: Thu, 28 Oct 2010 15:53:50 GMT
Call-ID: 8136fe80-cc919c7a-16-c34e590a@10.89.78.195
CSeq: 101 BYE
Content-Length: 0

```

CISCO CONFIDENTIAL**1.2 Basic Outgoing Call**

Title: Basic Outgoing Call

Description:

The following basic call flow illustrates the SIP messaging when the SIP trunk is acting as a UAC.

Unified CM2 received an INVITE via the SIP Trunk.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

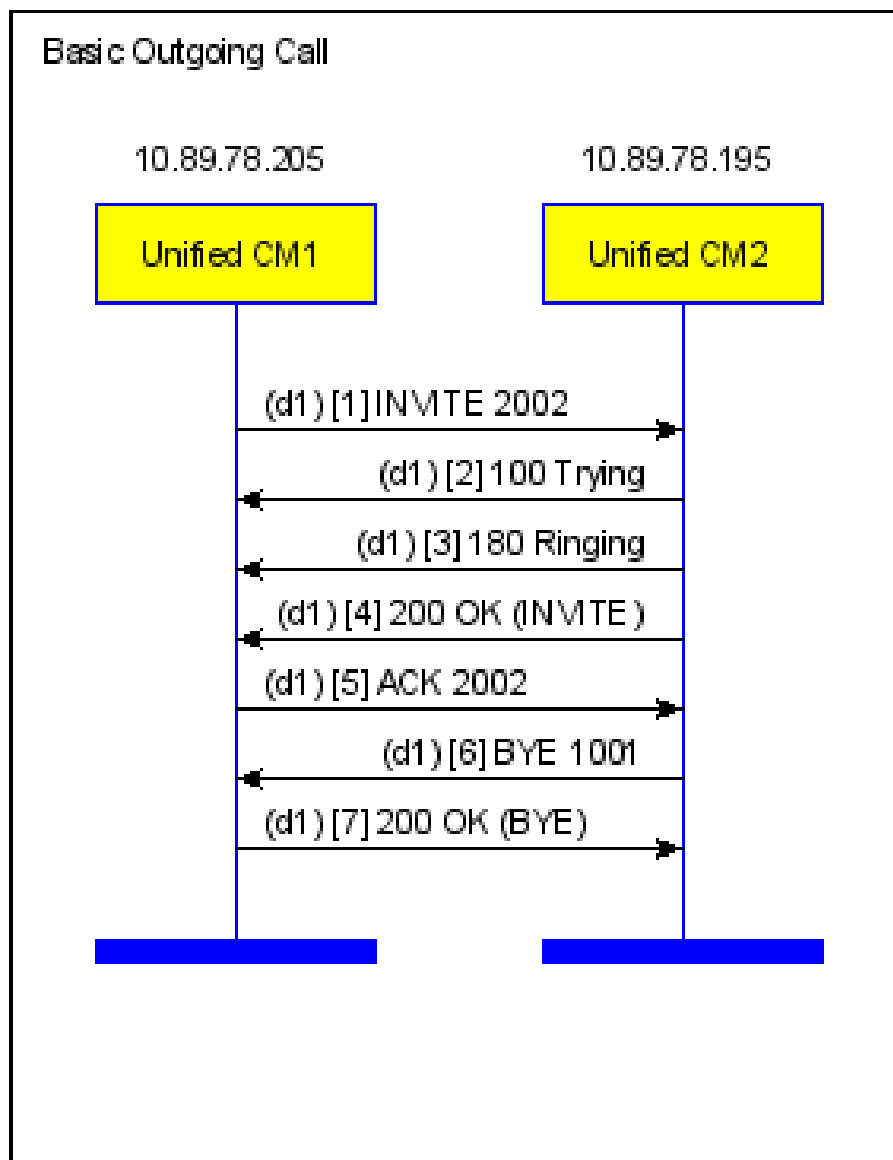
Scenario:

Phone A DN 1001 calls Phone A DN 2002 over the SIP Trunk by dialing 22002

Phone A DN 2002 Answers

Phone A DN 2002 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK29608e3edf
 From: <sip:1001@10.89.78.205>;tag=45~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935221
 To: <sip:2002@10.89.78.195>
 Date: Thu, 28 Oct 2010 16:09:38 GMT
 Call-ID: c2301280-cc91a042-9-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3257930368-00000065536-0000000009-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK29608e3edf
 From: <sip:1001@10.89.78.205>;tag=45~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935221
 To: <sip:2002@10.89.78.195>
 Date: Thu, 28 Oct 2010 16:09:38 GMT
 Call-ID: c2301280-cc91a042-9-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK29608e3edf
 From: <sip:1001@10.89.78.205>;tag=45~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935221
 To: <sip:2002@10.89.78.195>;tag=677~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009132
 Date: Thu, 28 Oct 2010 16:09:38 GMT
 Call-ID: c2301280-cc91a042-9-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK29608e3edf
 From: <sip:1001@10.89.78.205>;tag=45~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935221
 To: <sip:2002@10.89.78.195>;tag=677~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009132
 Date: Thu, 28 Oct 2010 16:09:38 GMT
 Call-ID: c2301280-cc91a042-9-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 17558 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2a811f4d4
From: <sip:1001@10.89.78.205>;tag=45~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935221
To: <sip:2002@10.89.78.195>;tag=677~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009132
Date: Thu, 28 Oct 2010 16:09:38 GMT
Call-ID: c2301280-cc91a042-9-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 23688 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] BYE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK322fa847b1
From: <sip:2002@10.89.78.195>;tag=677~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009132
To: <sip:1001@10.89.78.205>;tag=45~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935221
Date: Thu, 28 Oct 2010 16:09:43 GMT
Call-ID: c2301280-cc91a042-9-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 101 BYE
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK322fa847b1
From: <sip:2002@10.89.78.195>;tag=677~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009132
To: <sip:1001@10.89.78.205>;tag=45~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935221
Date: Thu, 28 Oct 2010 16:09:50 GMT
Call-ID: c2301280-cc91a042-9-cd4e590a@10.89.78.205
CSeq: 101 BYE
Content-Length: 0

```

CISCO CONFIDENTIAL**1.3 Basic Early Offer Call via an Inter Cluster SIP Trunk**

Title: Basic Early Offer Call via an Inter Cluster SIP Trunk

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 received an INVITE with SDP.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2001, IP = 10.13.5.220, Model = SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) Media Termination Point Required checked.

Scenario:

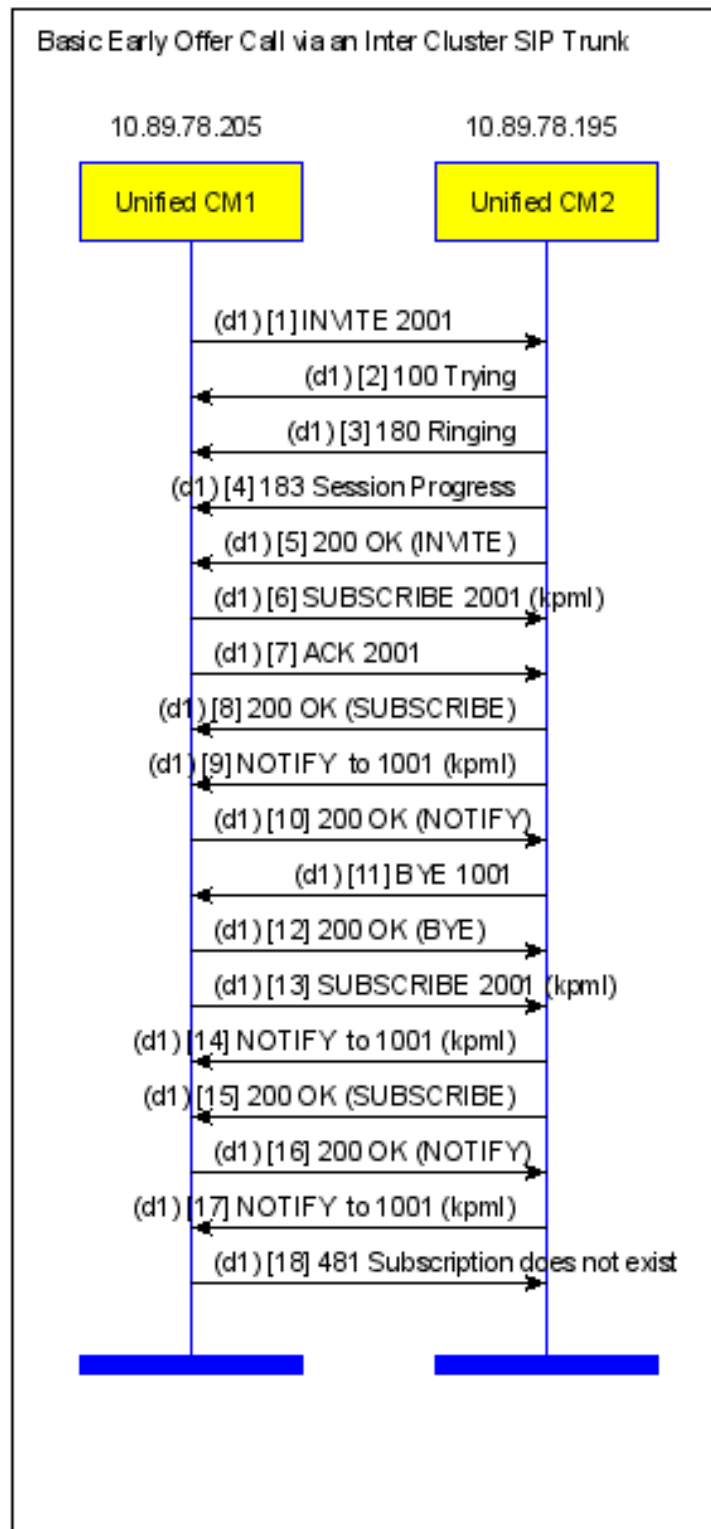
Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone A DN 2001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14826766f
 From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 To: <sip:2001@10.89.78.195>
 Date: Fri, 29 Oct 2010 20:32:15 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 2625713920-0000065536-0000000017-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 212

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 24604 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14826766f
 From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 To: <sip:2001@10.89.78.195>
 Date: Fri, 29 Oct 2010 20:32:15 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14826766f
 From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 To: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 Date: Fri, 29 Oct 2010 20:32:15 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14826766f
 From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 To: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 Date: Fri, 29 Oct 2010 20:32:15 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp

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Content-Length: 211

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.220
t=0 0
m=audio 25626 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]**[5] SIP/2.0 200 OK**

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14826766f
From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
To: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
Date: Fri, 29 Oct 2010 20:32:15 GMT
Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.220
t=0 0
m=audio 25626 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]**[6] SUBSCRIBE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0**

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1528e9c891
From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
To: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Date: Fri, 29 Oct 2010 20:32:17 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.205:5060;transport=tcp>
P-Asserted-Identity: <sip:1001@10.89.78.205>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

</kpml-request>

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]**[7] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0**

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK16f4377c1
From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
To: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
Date: Fri, 29 Oct 2010 20:32:15 GMT
Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
```

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Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1528e9c891
 From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 To: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 Date: Fri, 29 Oct 2010 20:32:17 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc1c3115d7
 From: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 To: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Fri, 29 Oct 2010 20:32:17 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc1c3115d7
 From: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 To: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 Date: Fri, 29 Oct 2010 20:32:17 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] BYE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKd534b04a2
 From: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 To: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 Date: Fri, 29 Oct 2010 20:32:17 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKd534b04a2
 From: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 To: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 Date: Fri, 29 Oct 2010 20:32:26 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SUBSCRIBE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1731044ded
 From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 To: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 103 SUBSCRIBE
 Date: Fri, 29 Oct 2010 20:32:26 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Max-Forwards: 70
 Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[14] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf9077954
 From: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 To: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Fri, 29 Oct 2010 20:32:26 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[15] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1731044ded
 From: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 To: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 Date: Fri, 29 Oct 2010 20:32:26 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 103 SUBSCRIBE
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[16] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf9077954
 From: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 To: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 Date: Fri, 29 Oct 2010 20:32:26 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[17] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1042c5703c
 From: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 To: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 104 NOTIFY
 Max-Forwards: 70
 Date: Fri, 29 Oct 2010 20:32:26 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[18] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1042c5703c
 From: <sip:2001@10.89.78.195>;tag=872~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316626
 To: <sip:1001@10.89.78.205>;tag=24~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309408
 Date: Fri, 29 Oct 2010 20:32:26 GMT
 Call-ID: 9c813700-ccb12f4f-11-cd4e590a@10.89.78.205
 CSeq: 104 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**1.4 Basic Call to a SCCP Device via an Inter Cluster SIP Trunk**

Title: Basic Call to a SCCP Device via an Inter Cluster SIP Trunk

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

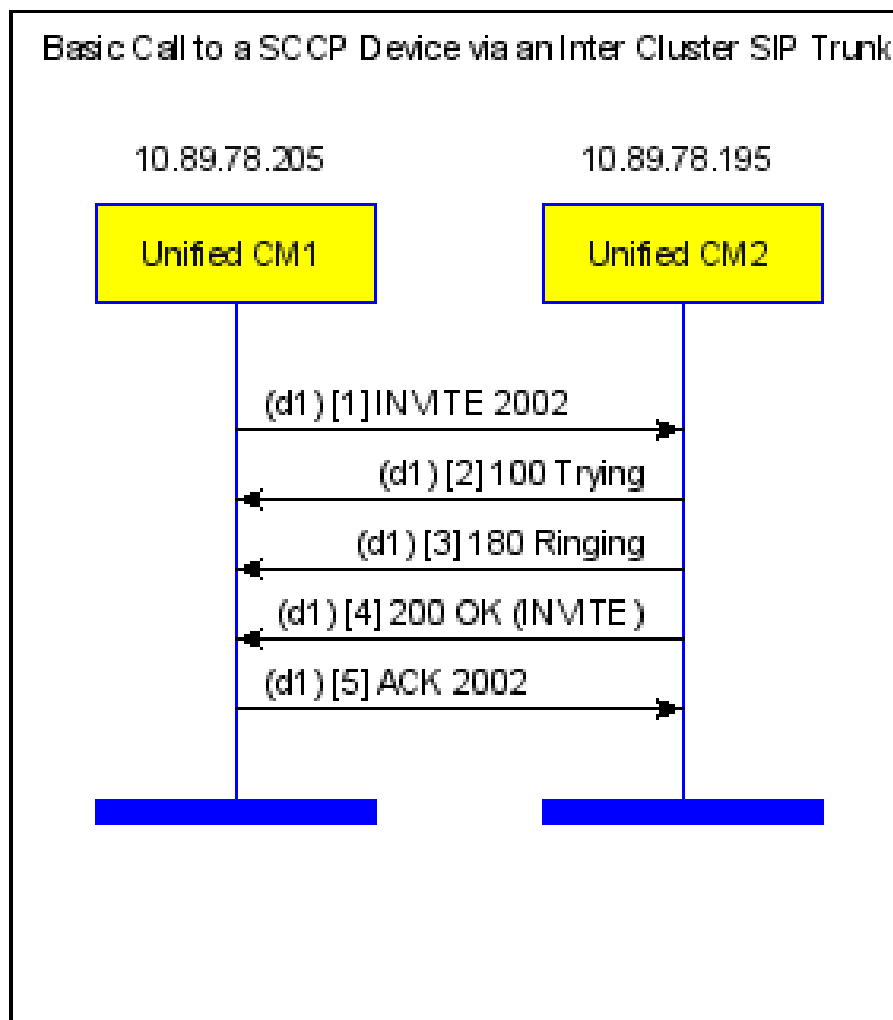
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b6c4bada3
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935223
 To: <sip:2002@10.89.78.195>
 Date: Thu, 28 Oct 2010 16:14:40 GMT
 Call-ID: 76319d80-cc91a170-a-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1982963072-00000065536-0000000010-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b6c4bada3
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935223
 To: <sip:2002@10.89.78.195>
 Date: Thu, 28 Oct 2010 16:14:40 GMT
 Call-ID: 76319d80-cc91a170-a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b6c4bada3
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935223
 To: <sip:2002@10.89.78.195>;tag=682~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009134
 Date: Thu, 28 Oct 2010 16:14:40 GMT
 Call-ID: 76319d80-cc91a170-a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b6c4bada3
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935223
 To: <sip:2002@10.89.78.195>;tag=682~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009134
 Date: Thu, 28 Oct 2010 16:14:40 GMT
 Call-ID: 76319d80-cc91a170-a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 31118 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2c3151831b

From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935223

To: <sip:2002@10.89.78.195>;tag=682~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009134

Date: Thu, 28 Oct 2010 16:14:40 GMT

Call-ID: 76319d80-cc91a170-a-cd4e590a@10.89.78.205

Max-Forwards: 70

CSeq: 101 ACK

Allow-Events: presence, kpml

Content-Type: application/sdp

Content-Length: 211

v=0

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205

s=SIP Call

c=IN IP4 10.13.5.217

t=0 0

m=audio 20866 RTP/AVP 9 101

a=rtpmap:9 G722/8000

a=ptime:20

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

CISCO CONFIDENTIAL**1.5 Basic Call to a SIP Device via an Inter Cluster SIP Trunk**

Title: Basic Call to a SIP Device via an Inter Cluster SIP Trunk

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2001, IP = 10.13.5.220, Model = SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

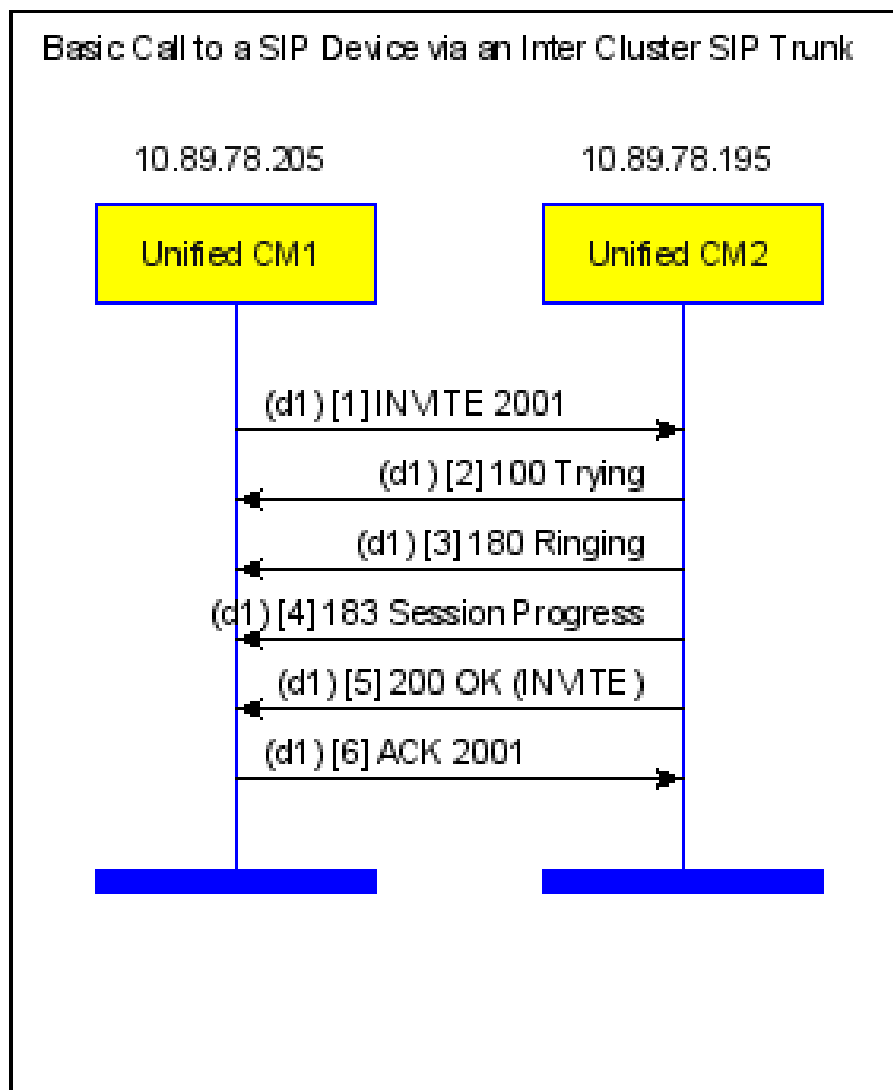
Scenario:

Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK313c94e7d7
 From: <sip:1001@10.89.78.205>;tag=51~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935229
 To: <sip:2001@10.89.78.195>
 Date: Thu, 28 Oct 2010 16:18:27 GMT
 Call-ID: fd7f1100-cc91a253-c-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 4252963072-00000065536-0000000012-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK313c94e7d7
 From: <sip:1001@10.89.78.205>;tag=51~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935229
 To: <sip:2001@10.89.78.195>
 Date: Thu, 28 Oct 2010 16:18:27 GMT
 Call-ID: fd7f1100-cc91a253-c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK313c94e7d7
 From: <sip:1001@10.89.78.205>;tag=51~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935229
 To: <sip:2001@10.89.78.195>;tag=690~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009138
 Date: Thu, 28 Oct 2010 16:18:27 GMT
 Call-ID: fd7f1100-cc91a253-c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK313c94e7d7
 From: <sip:1001@10.89.78.205>;tag=51~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935229
 To: <sip:2001@10.89.78.195>;tag=690~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009138
 Date: Thu, 28 Oct 2010 16:18:27 GMT
 Call-ID: fd7f1100-cc91a253-c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 17424 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000

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```
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK313c94e7d7
From: <sip:1001@10.89.78.205>;tag=51~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935229
To: <sip:2001@10.89.78.195>;tag=690~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009138
Date: Thu, 28 Oct 2010 16:18:27 GMT
Call-ID: fd7f1100-cc91a253-c-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 342
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.220
t=0 0
m=audio 17424 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK322db2fb25
From: <sip:1001@10.89.78.205>;tag=51~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935229
To: <sip:2001@10.89.78.195>;tag=690~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009138
Date: Thu, 28 Oct 2010 16:18:27 GMT
Call-ID: fd7f1100-cc91a253-c-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 27440 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

CISCO CONFIDENTIAL**1.6 Basic Call to a SCCP Device via an Inter Cluster SIP Trunk Using a FQDN as the destination address in the SIP Trunk configuration**

Title: Basic Call to a SCCP Device via an Inter Cluster SIP Trunk Using a FQDN as the destination address in the SIP Trunk configuration

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk, where Unified CM2's address is in the form of an FQDN

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has

a) route pattern 2.XXXX pattern

b) Destination Address as the FQDN of the Unified CM2

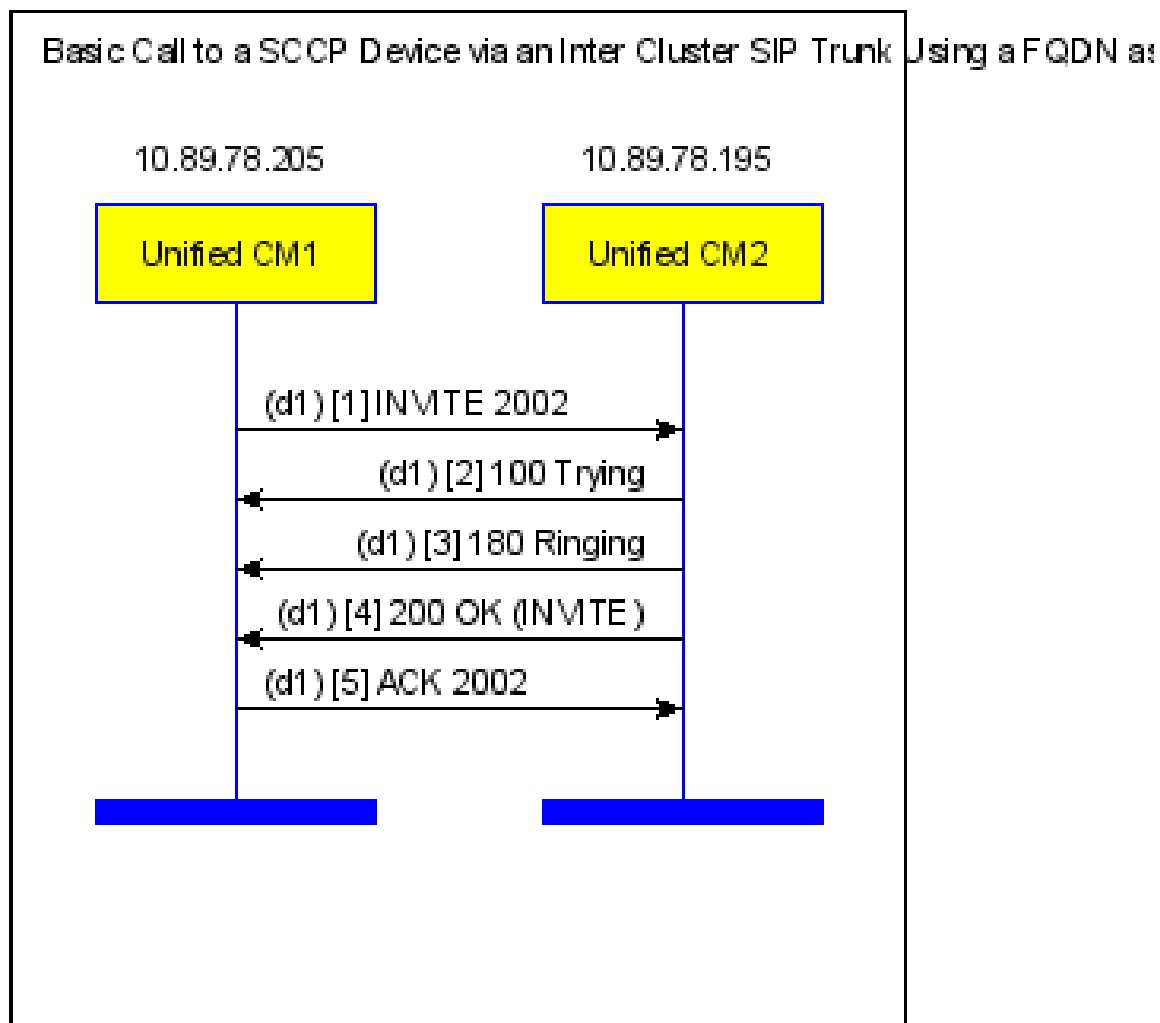
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1001 goes onHook

End of Scenario



CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@sw021b-cm2.cisco.com:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f6f654279

From: <sip:1001@10.89.78.205>;tag=33~1ebcd687-60ae-450a-823c-0469b2740097-23826283

To: <sip:2002@sw021b-cm2.cisco.com>

Date: Wed, 10 Nov 2010 21:54:21 GMT

Call-ID: 11962a00-cdb1148d-a-cd4e590a@10.89.78.205

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 0295053824-0000065536-0000000008-3444463882

Session-Expires: 1800

P-Asserted-Identity: <sip:1001@10.89.78.205>

Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off

Contact: <sip:1001@10.89.78.205:5060;transport=tcp>

Max-Forwards: 70

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f6f654279

From: <sip:1001@10.89.78.205>;tag=33~1ebcd687-60ae-450a-823c-0469b2740097-23826283

To: <sip:2002@sw021b-cm2.cisco.com>

Date: Wed, 10 Nov 2010 21:54:21 GMT

Call-ID: 11962a00-cdb1148d-a-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f6f654279

From: <sip:1001@10.89.78.205>;tag=33~1ebcd687-60ae-450a-823c-0469b2740097-23826283

To: <sip:2002@sw021b-cm2.cisco.com>;tag=372~e811c00a-4a66-4296-a800-0718da03b731-23818944

Date: Wed, 10 Nov 2010 21:54:21 GMT

Call-ID: 11962a00-cdb1148d-a-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence

Supported: X-cisco-srtp-fallback

Supported: Geolocation

P-Asserted-Identity: <sip:2002@10.89.78.195>

Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f6f654279

From: <sip:1001@10.89.78.205>;tag=33~1ebcd687-60ae-450a-823c-0469b2740097-23826283

To: <sip:2002@sw021b-cm2.cisco.com>;tag=372~e811c00a-4a66-4296-a800-0718da03b731-23818944

Date: Wed, 10 Nov 2010 21:54:21 GMT

Call-ID: 11962a00-cdb1148d-a-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence, kpml

Supported: replaces

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

Require: timer

P-Asserted-Identity: <sip:2002@10.89.78.195>

Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Type: application/sdp

Content-Length: 321

v=0

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195

s=SIP Call

c=IN IP4 10.13.5.219

t=0 0

m=audio 25738 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3023edfc82

From: <sip:1001@10.89.78.205>;tag=33~1ebcd687-60ae-450a-823c-0469b2740097-23826283

To: <sip:2002@sw021b-cm2.cisco.com>;tag=372~e811c00a-4a66-4296-a800-0718da03b731-23818944

Date: Wed, 10 Nov 2010 21:54:21 GMT

Call-ID: 11962a00-cdb1148d-a-cd4e590a@10.89.78.205

Max-Forwards: 70

CSeq: 101 ACK

Allow-Events: presence, kpml

Content-Type: application/sdp

Content-Length: 211

v=0

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205

s=SIP Call

c=IN IP4 10.13.5.217

t=0 0

m=audio 28384 RTP/AVP 9 101

a=rtpmap:9 G722/8000

a=ptime:20

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

CISCO CONFIDENTIAL**1.7 Basic Call to a SCCP Device via an Inter Cluster SIP Trunk using an SRV record as the destination address in the SIP Trunk configuration**

Title: Basic Call to a SCCP Device via an Inter Cluster SIP Trunk using an SRV record as the destination address in the SIP Trunk configuration

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk, where Unified CM2's address is in the form of an SRV record that gets resolved to an fqdn pointing to CM2, where the Enterprise Parameter Clust Fully Qualified Domain Name needs contains the domain of SRV record.

Cisco Unified CM (Unified CM1) sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

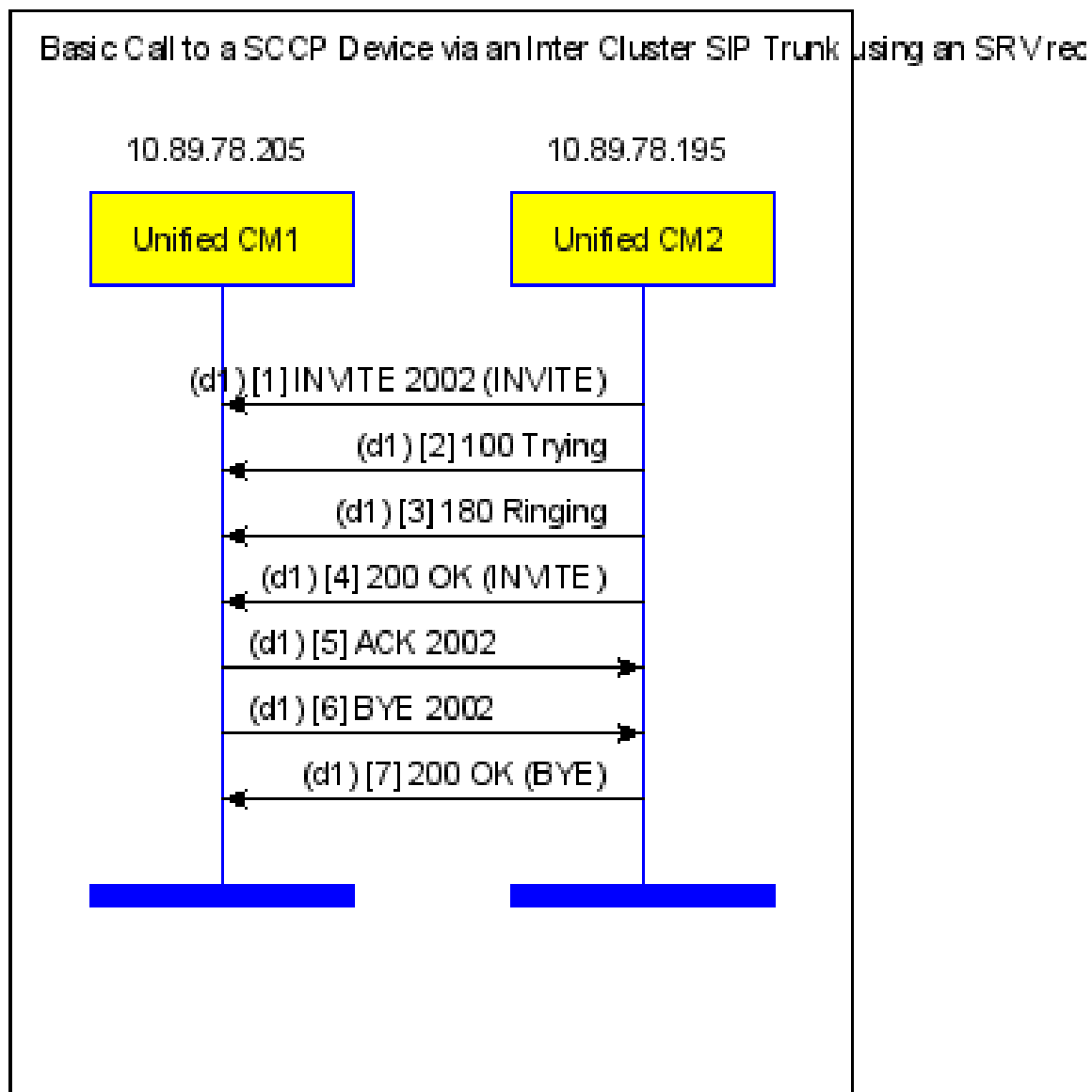
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1001 goes onHook

End of Scenario



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[diagram] Call-ID: [prev][next]

[1] INVITE sip:2002@sipsrv.cisco.com:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK93a1fe7ed

From: <sip:1001@10.89.78.205>;tag=11~1ebcd687-60ae-450a-823c-0469b2740097-23904025

To: <sip:2002@sipsrv.cisco.com>

Date: Thu, 11 Nov 2010 00:10:54 GMT

Call-ID: 24fec080-cdb1348e-9-cd4e590a@10.89.78.205

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 0620675200-0000065536-0000000009-3444463882

Session-Expires: 1800

P-Asserted-Identity: <sip:1001@10.89.78.205>

Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off

Contact: <sip:1001@10.89.78.205:5060;transport=tcp>

Max-Forwards: 70

Content-Length: 0

[diagram] Call-ID: [prev][next]

[2] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK93a1fe7ed

From: <sip:1001@10.89.78.205>;tag=11~1ebcd687-60ae-450a-823c-0469b2740097-23904025

To: <sip:2002@sipsrv.cisco.com>

Date: Thu, 11 Nov 2010 00:10:54 GMT

Call-ID: 24fec080-cdb1348e-9-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[diagram] Call-ID: [prev][next]

[3] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK93a1fe7ed

From: <sip:1001@10.89.78.205>;tag=11~1ebcd687-60ae-450a-823c-0469b2740097-23904025

To: <sip:2002@sipsrv.cisco.com>;tag=5~e811c00a-4a66-4296-a800-0718da03b731-23908381

Date: Thu, 11 Nov 2010 00:10:54 GMT

Call-ID: 24fec080-cdb1348e-9-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence

Supported: X-cisco-srtp-fallback

Supported: Geolocation

P-Asserted-Identity: <sip:2002@10.89.78.195>

Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Length: 0

[diagram] Call-ID: [prev][next]

[4] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK93a1fe7ed

From: <sip:1001@10.89.78.205>;tag=11~1ebcd687-60ae-450a-823c-0469b2740097-23904025

To: <sip:2002@sipsrv.cisco.com>;tag=5~e811c00a-4a66-4296-a800-0718da03b731-23908381

Date: Thu, 11 Nov 2010 00:10:54 GMT

Call-ID: 24fec080-cdb1348e-9-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence, kpml

Supported: replaces

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

Require: timer

P-Asserted-Identity: <sip:2002@10.89.78.195>

Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Type: application/sdp

Content-Length: 321

v=0

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195

s=SIP Call

c=IN IP4 10.13.5.219

t=0 0

m=audio 25836 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKa1045a1d6
From: <sip:1001@10.89.78.205>;tag=11~1ebcd687-60ae-450a-823c-0469b2740097-23904025
To: <sip:2002@sipsrv.cisco.com>;tag=5~e811c00a-4a66-4296-a800-0718da03b731-23908381
Date: Thu, 11 Nov 2010 00:10:54 GMT
Call-ID: 24fec080-cdb1348e-9-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 28496 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb5bbc87a9
From: <sip:1001@10.89.78.205>;tag=11~1ebcd687-60ae-450a-823c-0469b2740097-23904025
To: <sip:2002@sipsrv.cisco.com>;tag=5~e811c00a-4a66-4296-a800-0718da03b731-23908381
Date: Thu, 11 Nov 2010 00:10:54 GMT
Call-ID: 24fec080-cdb1348e-9-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 102 BYE
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[7] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb5bbc87a9
From: <sip:1001@10.89.78.205>;tag=11~1ebcd687-60ae-450a-823c-0469b2740097-23904025
To: <sip:2002@sipsrv.cisco.com>;tag=5~e811c00a-4a66-4296-a800-0718da03b731-23908381
Date: Thu, 11 Nov 2010 00:11:02 GMT
Call-ID: 24fec080-cdb1348e-9-cd4e590a@10.89.78.205
CSeq: 102 BYE
Content-Length: 0

```

CISCO CONFIDENTIAL**1.8 Basic Hold-resume Call via a SIP Trunk to a SIP Proxy**

Title: Basic Hold-resume Call via a SIP Trunk to a SIP Proxy

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs and a Cisco Unified SIP Proxy via a SIP trunk.

Cisco Unified CM initiated the "hold" and then resumed the call.

Configuration:

Node = Unified CM1, IP = 10.89.78.195

Node = SIP Proxy, IP = 10.89.81.82

Node = SIP Endpoint, IP = 10.89.28.119

Phone = A, Line = 2004, IP = 10.8.28.103, Model = SCCP

Phone = B, Line = 30003, IP = 10.10.199.42, Model = SIP TNP -- SIP 7960

SIP Trunk on Unified CM1 pointing to the SIP Proxy with route pattern 3.XXXXX

Scenario:

Phone A DN 2004 calls Phone B DN 30003 over the SIP Trunk by dialing 330003

Phone B DN 30003 Answers

Phone A DN 2004 presses hold softkey

Phone B DN 30003 hears music on hold (MOH)

Duration short

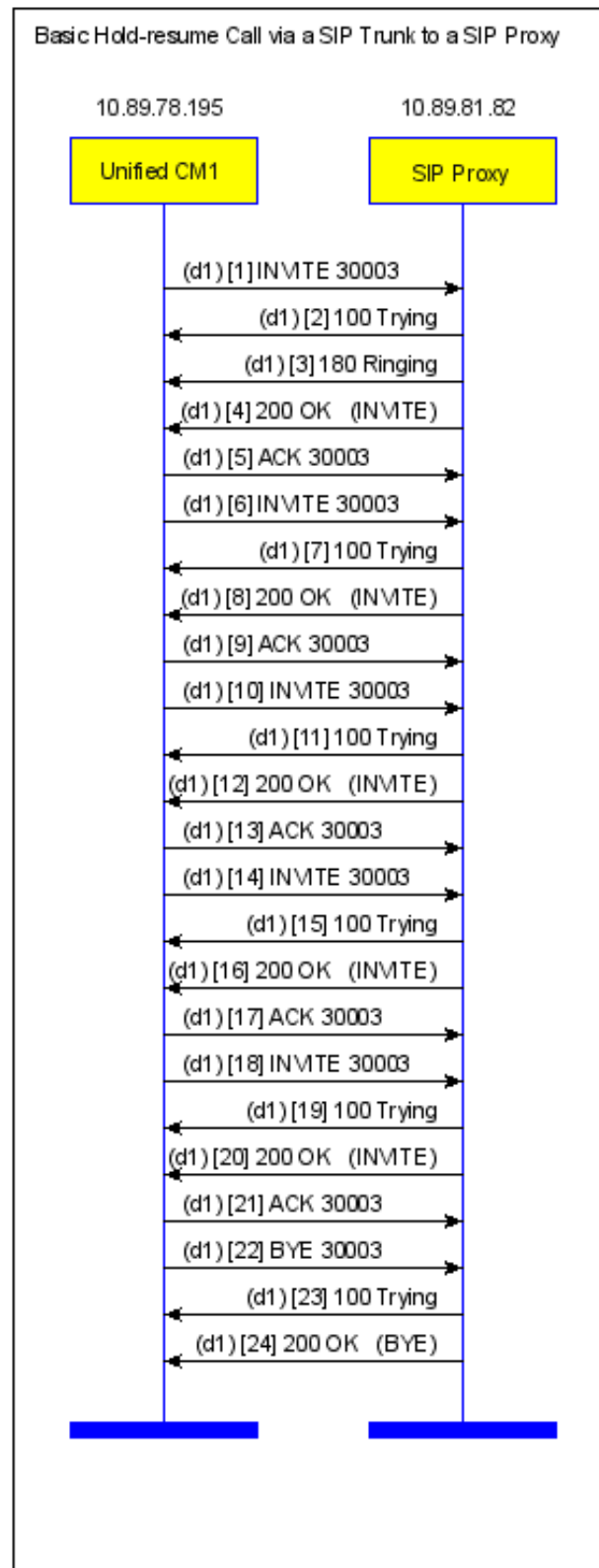
Phone A DN 2004 presses resume softkey

Phone A DN 2004 and Phone B DN 30003 have two-way speech

Phone A DN 2004 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:30003@10.89.81.82:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKe633fdb80
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>
 Date: Wed, 10 Nov 2010 18:02:49 GMT
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3108974592-0000065536-0000000002-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2004@10.89.78.195>
 Remote-Party-ID: <sip:2004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bKe633fdb80
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>
 CSeq: 101 INVITE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bKe633fdb80
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bKe633fdb80
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces,join,norefersub
 Content-Length: 274
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 23292 0 IN IP4 10.8.28.119
 s=SIP Call
 t=0 0
 m=audio 26946 RTP/AVP 0 8 18 101
 c=IN IP4 10.8.28.119
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

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[diagram] Call-ID: [prev][next]

[5] ACK sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bKf43cc1635
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 Date: Wed, 10 Nov 2010 18:02:49 GMT
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.103
 t=0 0
 m=audio 27760 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[diagram] Call-ID: [prev][next]

[6] INVITE sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK10394ae4e7
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 Date: Wed, 10 Nov 2010 18:02:58 GMT
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2004@10.89.78.195>
 Remote-Party-ID: <sip:2004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 27760 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[diagram] Call-ID: [prev][next]

[7] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK10394ae4e7
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 CSeq: 102 INVITE
 Content-Length: 0

[diagram] Call-ID: [prev][next]

[8] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK10394ae4e7
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 CSeq: 102 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>

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Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, norefersub
 Content-Length: 203
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 23292 1 IN IP4 10.8.28.119
 s=SIP Call
 t=0 0
 m=audio 26946 RTP/AVP 0 101
 c=IN IP4 10.8.28.119
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=inactive

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] ACK sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK11606e5b69
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 Date: Wed, 10 Nov 2010 18:02:58 GMT
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] INVITE sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK127555a0af
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 Date: Wed, 10 Nov 2010 18:02:58 GMT
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Supported: timer, resource-priority, replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2004@10.89.78.195>
 Remote-Party-ID: <sip:2004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] SIP/2.0 100 Trying
 Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK127555a0af
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 CSeq: 103 INVITE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] SIP/2.0 200 OK
 Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK127555a0af
 From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
 To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
 Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
 CSeq: 103 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, norefersub
 Content-Length: 274
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

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```

v=0
o=Cisco-SIPUA 23292 2 IN IP4 10.8.28.119
s=SIP Call
t=0 0
m=audio 26946 RTP/AVP 0 8 18 101
c=IN IP4 10.8.28.119
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[13] ACK sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK1374a8b49b
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Date: Wed, 10 Nov 2010 18:02:58 GMT
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
Route: <sip:30003@10.8.28.119:5060;transport=udp>
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 189

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.89.78.195
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=sendonly

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[14] INVITE sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK141af3f163
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Date: Wed, 10 Nov 2010 18:03:04 GMT
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
Route: <sip:30003@10.8.28.119:5060;transport=udp>
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 104 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:2004@10.89.78.195>
Remote-Party-ID: <sip:2004@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:2004@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 184

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[15] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK141af3f163
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552

```

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CSeq: 104 INVITE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK141af3f163
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
CSeq: 104 INVITE
Server: Cisco-CP7960G/8.0
Contact: <sip:30003@10.8.28.119:5060;transport=udp>
Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces, join, norefersub
Content-Length: 147
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 23292 4 IN IP4 10.8.28.119
s=SIP Call
t=0 0
m=audio 26946 RTP/AVP 0
c=IN IP4 10.8.28.119
a=rtpmap:0 PCMU/8000
a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] ACK sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK1565925d63
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Date: Wed, 10 Nov 2010 18:03:04 GMT
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
Route: <sip:30003@10.8.28.119:5060;transport=udp>
Max-Forwards: 70
CSeq: 104 ACK
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] INVITE sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK16367f5ce5
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Date: Wed, 10 Nov 2010 18:03:05 GMT
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
Route: <sip:30003@10.8.28.119:5060;transport=udp>
Supported: timer, resource-priority, replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 105 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:2004@10.89.78.195>
Remote-Party-ID: <sip:2004@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:2004@10.89.78.195:5060>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK16367f5ce5
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
CSeq: 105 INVITE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK16367f5ce5
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195

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```
CSeq: 105 INVITE
Server: Cisco-CP7960G/8.0
Contact: <sip:30003@10.8.28.119:5060;transport=udp>
Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces,join,norefersub
Content-Length: 274
Content-Type: application/sdp
Content-Disposition: session;handling=optional
```

```
v=0
o=Cisco-SIPUA 23292 5 IN IP4 10.8.28.119
s=SIP Call
t=0 0
m=audio 26946 RTP/AVP 0 8 18 101
c=IN IP4 10.8.28.119
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[21] ACK sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK172019587a
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Date: Wed, 10 Nov 2010 18:03:05 GMT
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
Route: <sip:30003@10.8.28.119:5060;transport=udp>
Max-Forwards: 70
CSeq: 105 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.8.28.103
t=0 0
m=audio 28898 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[22] BYE sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK1869d443e2
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Date: Wed, 10 Nov 2010 18:03:05 GMT
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
Route: <sip:30003@10.8.28.119:5060;transport=udp>
P-Asserted-Identity: <sip:2004@10.89.78.195>
CSeq: 106 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[23] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK1869d443e2
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
CSeq: 106 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[24] SIP/2.0 200 OK
Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK1869d443e2
From: <sip:2004@10.89.78.195>;tag=17~e811c00a-4a66-4296-a800-0718da03b731-23818852
To: <sip:30003@10.89.81.82>;tag=003094c2dce600680f265585-4cb16552
Call-ID: b94f3000-cda1de49-5-c34e590a@10.89.78.195
CSeq: 106 BYE
```

Server: Cisco-CP7960G/8.0
Content-Length: 0

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CISCO CONFIDENTIAL**1.9 Basic Hold-resume Call via an Inter Cluster SIP Trunk**

Title: Basic Hold-resume Call via an Inter Cluster SIP Trunk

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 initiated the "hold" and then resumed the call.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2001, IP = 10.13.5.220, Model = SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Scenario:

Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone A DN 1001 presses hold softkey

Phone B DN 2001 hears music on hold (MOH)

Duration short

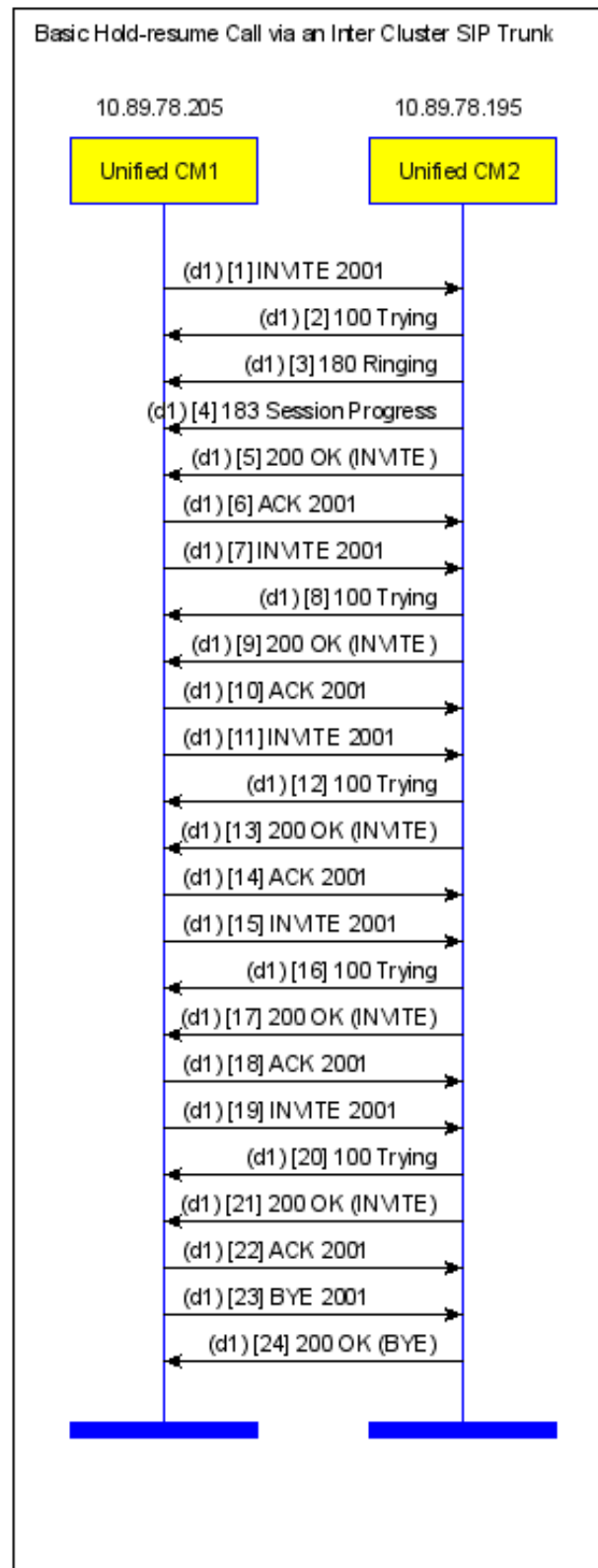
Phone A DN 1001 presses resume softkey

Phone A DN 1001 and Phone B DN 2001 have two-way speech

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK344b0ba17d
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>
 Date: Thu, 28 Oct 2010 16:20:24 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1127995776-00000065536-0000000013-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK344b0ba17d
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>
 Date: Thu, 28 Oct 2010 16:20:24 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK344b0ba17d
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:24 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK344b0ba17d
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:24 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22380 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000

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```

a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK344b0ba17d
From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
Date: Thu, 28 Oct 2010 16:20:24 GMT
Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 342

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.220
t=0 0
m=audio 22380 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK357acf4470
From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
Date: Thu, 28 Oct 2010 16:20:24 GMT
Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 22660 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK36716132a1
From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
Date: Thu, 28 Oct 2010 16:20:31 GMT
Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces

```

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Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 22660 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK36716132a1
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:31 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK36716132a1
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:31 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22380 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3736dbe270
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:31 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 Max-Forwards: 70

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CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK384a18f145
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:32 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK384a18f145
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:32 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK384a18f145
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:32 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22380 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3944bf5c22

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From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:32 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 103 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3a60159500
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:43 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 184

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3a60159500
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:43 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 104 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3a60159500
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:43 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation

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Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22380 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3b6d36d503
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:43 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 104 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3c395303c6
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:44 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 105 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3c395303c6
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:44 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3c395303c6
 From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
 To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
 Date: Thu, 28 Oct 2010 16:20:44 GMT
 Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback

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Supported: Geolocation
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 342

```
v=0
o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.220
t=0 0
m=audio 22380 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3d35560024
From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
Date: Thu, 28 Oct 2010 16:20:44 GMT
Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 105 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```
v=0
o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 24248 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] BYE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3e69258a9b
From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
Date: Thu, 28 Oct 2010 16:20:44 GMT
Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 106 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[24] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3e69258a9b
From: <sip:1001@10.89.78.205>;tag=53~164963e8-a2d4-4fce-a700-197c5e73cfc1-16935231
To: <sip:2001@10.89.78.195>;tag=695~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19009140
Date: Thu, 28 Oct 2010 16:20:50 GMT
Call-ID: 433bd980-cc91a2c8-d-cd4e590a@10.89.78.205
CSeq: 106 BYE
Content-Length: 0

CISCO CONFIDENTIAL**1.10 Basic Conference Call via an Inter Cluster SIP Trunk**

Title: Basic Conference Call via an Inter Cluster SIP Trunk

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified IP Phone 1001 (registered with CM1) calls Cisco Unified IP Phone 2001 (registered with CM2). Then Cisco Unified IP Phone 2001 conferences with Cisco Unified IP Phone 1005 (registered with CM1)

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2001, IP = 10.13.5.220, Model = SIP TNP

Phone = C, Line = 1005, IP = 10.8.28.104, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Scenario:

Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone B DN 2001 presses Confrn softkey

Phone B DN 2001 calls Phone C DN 1005 over the SIP Trunk by dialing 11003

Phone C DN 1005 Answers

Phone B DN 2001 presses Confrn softkey to complete the conference

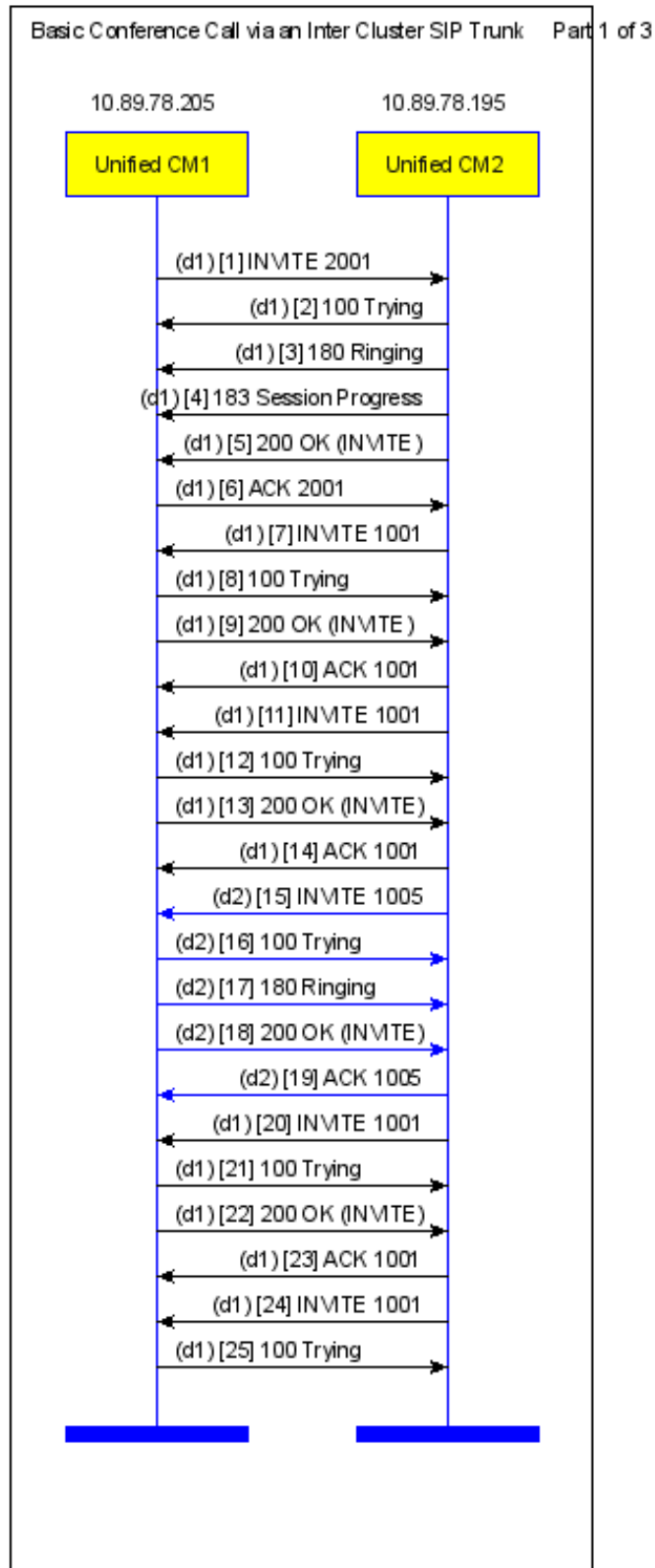
Phone A DN 1001, Phone B DN 2001 and Phone C DN 1005 are in conference call

Phone A DN 1001 goes onHook

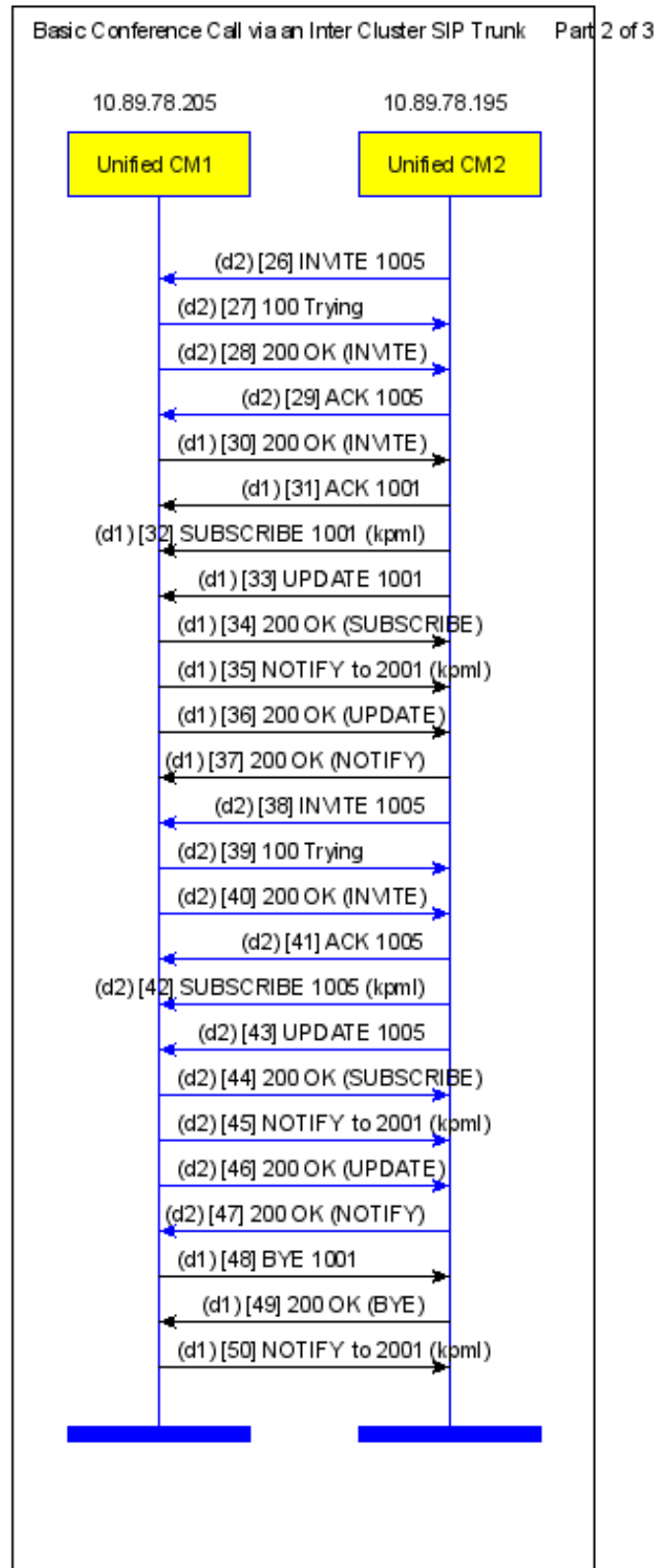
Phone B DN 2001 goes onHook

End of Scenario

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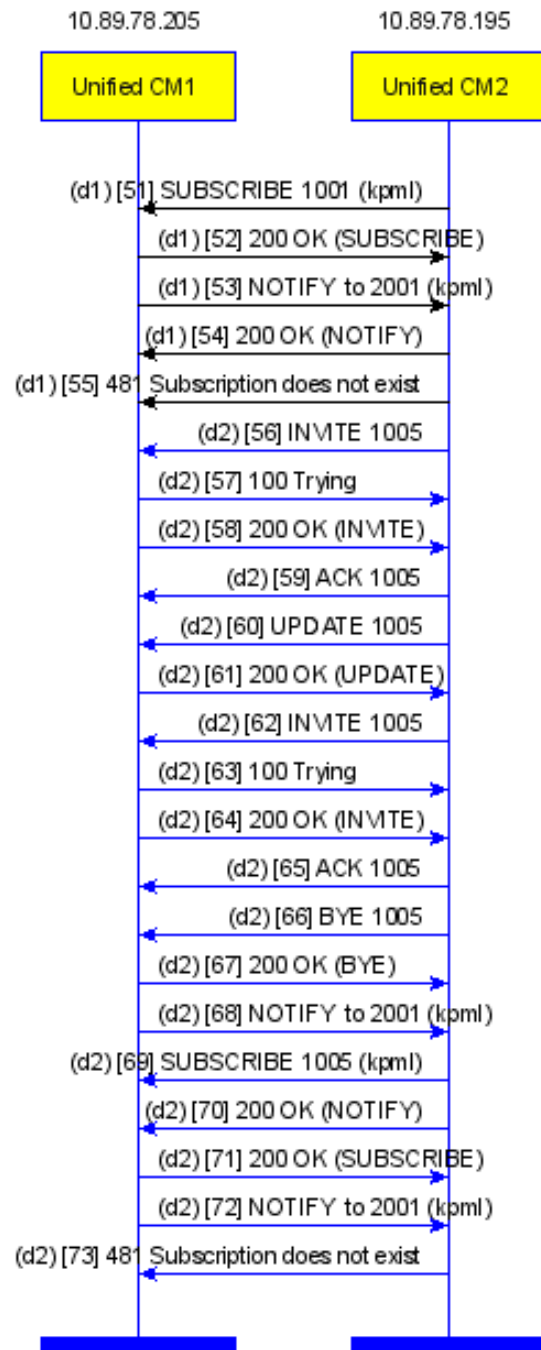


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Basic Conference Call via an Inter Cluster SIP Trunk Part 3 of 3



CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK17513f2594
 From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 To: <sip:2001@10.89.78.195>
 Date: Wed, 10 Nov 2010 21:47:11 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0290021120-00000065536-0000000004-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK17513f2594
 From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 To: <sip:2001@10.89.78.195>
 Date: Wed, 10 Nov 2010 21:47:11 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK17513f2594
 From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 Date: Wed, 10 Nov 2010 21:47:11 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK17513f2594
 From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 Date: Wed, 10 Nov 2010 21:47:11 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 19538 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000

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```

a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK17513f2594
From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
Date: Wed, 10 Nov 2010 21:47:11 GMT
Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 342

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.220
t=0 0
m=audio 19538 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK186070adb2
From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
Date: Wed, 10 Nov 2010 21:47:11 GMT
Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 18304 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9d556606b9
From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
Date: Wed, 10 Nov 2010 21:47:22 GMT
Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces

```

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```

Min-SE: 1800
Cisco-Guid: 0290021120-0000065536-0000000004-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 350

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 19538 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 100 Trying

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9d556606b9
From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
Date: Wed, 10 Nov 2010 21:47:22 GMT
Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9d556606b9
From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
Date: Wed, 10 Nov 2010 21:47:22 GMT
Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: timer
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 223

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 18304 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

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Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9e251fdd94
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:22 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[11] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9f381a6ec5
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:22 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 0290021120-0000065536-0000000004-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[12] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9f381a6ec5
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:22 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[13] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9f381a6ec5
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:22 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 19102 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20

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```
a=rtptime:18 6729/8000
a=ptime:20
a=rtptime:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[14] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa0138f9b20
From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
Date: Wed, 10 Nov 2010 21:47:22 GMT
Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 189
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.89.78.195
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtptime:0 PCMU/8000
a=ptime:20
a=sendonly
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[15] INVITE sip:1005@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa533277c01
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>
Date: Wed, 10 Nov 2010 21:47:26 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Cisco-Guid: 0440021120-0000065536-0000000012-3276691722
Session-Expires: 1800
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Max-Forwards: 69
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[16] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa533277c01
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>
Date: Wed, 10 Nov 2010 21:47:26 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[17] SIP/2.0 180 Ringing
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa533277c01
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:26 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1005@10.89.78.205>
Remote-Party-ID: <sip:1005@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
```


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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[18] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa533277c01
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:26 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1005@10.89.78.205>
 Remote-Party-ID: <sip:1005@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 30772 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[19] ACK sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa6db86732
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:26 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 28524 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[20] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa91b483e6f
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 0290021120-00000065536-0000000004-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml

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Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 184

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa91b483e6f
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa91b483e6f
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 167

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 19102 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKaa7ce58806
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 103 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[24] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKac54ad049f
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT

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Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 0290021120-0000065536-0000000004-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>;video;audio;isFocus
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[25] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKac54ad049f
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 104 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] INVITE sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKae41a9fc29
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 28524 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKae41a9fc29
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKae41a9fc29
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

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To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1005@10.89.78.205>
 Remote-Party-ID: <sip:1005@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 30772 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[29] ACK sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKaf6d94eb99
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[30] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKac54ad049f
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 19898 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[31] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb0465fc9e0
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 104 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 156

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.89.78.195
 t=0 0
 m=audio 24608 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[32] SUBSCRIBE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb16060aa11
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 105 SUBSCRIBE
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.89.78.195:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[33] UPDATE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb2300d08f0
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 106 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: "Conference" <sip:10.89.78.195>
 Remote-Party-ID: "Conference" <sip:10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>;isFocus
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[34] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb16060aa11
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 105 SUBSCRIBE
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[35] NOTIFY sip:10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK193a35b602

From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269

To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922

Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205

CSeq: 102 NOTIFY

Max-Forwards: 70

Date: Wed, 10 Nov 2010 21:47:30 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Subscription-State: active;expires=7200

Contact: <sip:1001@10.89.78.205:5060;transport=tcp>

P-Asserted-Identity: <sip:1001@10.89.78.205>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[36] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb2300d08f0

From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922

To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269

Date: Wed, 10 Nov 2010 21:47:30 GMT

Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205

CSeq: 106 UPDATE

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

P-Asserted-Identity: <sip:1001@10.89.78.205>

Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off

Contact: <sip:1001@10.89.78.205:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[37] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK193a35b602

From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269

To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922

Date: Wed, 10 Nov 2010 21:47:30 GMT

Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205

CSeq: 102 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[38] INVITE sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb44a61b28e

From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

Date: Wed, 10 Nov 2010 21:47:30 GMT

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 103 INVITE

Max-Forwards: 70

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

P-Asserted-Identity: <sip:2001@10.89.78.195>

Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off

Contact: <sip:2001@10.89.78.195:5060;transport=tcp>;video;audio;isFocus

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[39] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb44a61b28e

From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

Date: Wed, 10 Nov 2010 21:47:30 GMT

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

CSeq: 103 INVITE

Allow-Events: presence, kpml

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[40] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb44a61b28e

From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

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```
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:30 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Session-Expires: 1800;refresher=uas
Require: timer
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1005@10.89.78.205>
Remote-Party-ID: <sip:1005@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 321
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.8.28.104
t=0 0
m=audio 31082 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[41] ACK sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb626411255
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:30 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 156
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.89.78.195
t=0 0
m=audio 24610 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[42] SUBSCRIBE sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb719bcf065
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 104 SUBSCRIBE
Date: Wed, 10 Nov 2010 21:47:30 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.195:5060;transport=tcp>
P-Asserted-Identity: <sip:2001@10.89.78.195>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
```

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</pattern>

</kpml-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[43] UPDATE sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb85b3f7eb3

From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

Date: Wed, 10 Nov 2010 21:47:30 GMT

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

Supported: timer,resource-priority,replaces

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 105 UPDATE

Supported: X-cisco-srtp-fallback

Supported: Geolocation

P-Asserted-Identity: "Conference" <sip:10.89.78.195>

Remote-Party-ID: "Conference" <sip:10.89.78.195>;party=calling;screen=yes;privacy=off

Contact: <sip:2001@10.89.78.195:5060;transport=tcp>;isFocus

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[44] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb719bcf065

From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

Date: Wed, 10 Nov 2010 21:47:30 GMT

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

CSeq: 104 SUBSCRIBE

Contact: <sip:1005@10.89.78.205:5060;transport=tcp>

Expires: 7200

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[45] NOTIFY sip:10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1a50c95b9f

From: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

To: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

CSeq: 101 NOTIFY

Max-Forwards: 70

Date: Wed, 10 Nov 2010 21:47:30 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Subscription-State: active;expires=7200

Contact: <sip:1005@10.89.78.205:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[46] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb85b3f7eb3

From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

Date: Wed, 10 Nov 2010 21:47:30 GMT

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

CSeq: 105 UPDATE

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

P-Asserted-Identity: <sip:1005@10.89.78.205>

Remote-Party-ID: <sip:1005@10.89.78.205>;party=called;screen=yes;privacy=off

Contact: <sip:1005@10.89.78.205:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[47] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1a50c95b9f

From: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

To: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

Date: Wed, 10 Nov 2010 21:47:30 GMT

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

CSeq: 101 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[48] BYE sip:1001@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1b26bad90e

From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269

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To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 Date: Wed, 10 Nov 2010 21:47:30 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[49] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1b26bad90e
 From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[50] NOTIFY sip:10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c10cdab
 From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 104 NOTIFY
 Max-Forwards: 70
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[51] SUBSCRIBE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKbe3e209c72
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 107 SUBSCRIBE
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[52] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKbe3e209c72
 From: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 To: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 107 SUBSCRIBE
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[53] NOTIFY sip:10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1d33fea1ac
 From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
 To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
 Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
 CSeq: 105 NOTIFY
 Max-Forwards: 70
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

<?xml version="1.0" encoding="UTF-8" ?>

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```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[54] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c10cdab
From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
Date: Wed, 10 Nov 2010 21:47:43 GMT
Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
CSeq: 104 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[55] SIP/2.0 481 Subscription does not exist

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1d33fea1ac
From: <sip:1001@10.89.78.205>;tag=21~1ebcd687-60ae-450a-823c-0469b2740097-23826269
To: <sip:2001@10.89.78.195>;tag=318~e811c00a-4a66-4296-a800-0718da03b731-23818922
Date: Wed, 10 Nov 2010 21:47:43 GMT
Call-ID: 11495f00-cdb112df-6-cd4e590a@10.89.78.205
CSeq: 105 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[56] INVITE sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc14c94f692
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:43 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 106 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: "Conference" <sip:10.89.78.195>
Remote-Party-ID: "Conference" <sip:10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>;isFocus
Content-Type: application/sdp
Content-Length: 163
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 24610 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[57] SIP/2.0 100 Trying

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc14c94f692
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:43 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 106 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[58] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc14c94f692
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:43 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 106 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
```

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Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1005@10.89.78.205>
 Remote-Party-ID: <sip:1005@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 167

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 31082 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[59] ACK sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc264f3e4dd
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 106 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[60] UPDATE sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc31cce0a0e
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 107 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[61] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc31cce0a0e
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 CSeq: 107 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1005@10.89.78.205>
 Remote-Party-ID: <sip:1005@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[62] INVITE sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc64a20f147
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 108 INVITE
 Max-Forwards: 70

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Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[63] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc64a20f147
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 CSeq: 108 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[64] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc64a20f147
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 CSeq: 108 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1005@10.89.78.205>
 Remote-Party-ID: <sip:1005@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 32370 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[65] ACK sip:1005@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc97ba99f5b
 From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
 To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
 Date: Wed, 10 Nov 2010 21:47:43 GMT
 Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 108 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 19538 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20

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a=rtmpmap:101 telephone-event/8000
a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[66] BYE sip:1005010.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKca283319fe
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:43 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:2001@10.89.78.195>
CSeq: 109 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[67] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKca283319fe
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:54 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 109 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[68] NOTIFY sip:10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1e1b83f9c2
From: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
To: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Wed, 10 Nov 2010 21:47:54 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: terminated
Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[69] SUBSCRIBE sip:1005010.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKcc21632e0a
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 110 SUBSCRIBE
Date: Wed, 10 Nov 2010 21:47:54 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 0
Contact: <sip:10.89.78.195:5060;transport=tcp>
P-Asserted-Identity: <sip:2001@10.89.78.195>
Max-Forwards: 70
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[70] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1e1b83f9c2
From: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
To: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
Date: Wed, 10 Nov 2010 21:47:54 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 102 NOTIFY
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[71] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKcc21632e0a
From: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926
To: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270
Date: Wed, 10 Nov 2010 21:47:54 GMT
Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195
CSeq: 110 SUBSCRIBE
Contact: <sip:1005@10.89.78.205:5060;transport=tcp>
Expires: 0
Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[72] NOTIFY sip:10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1f1c5f9e27

From: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

To: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

CSeq: 103 NOTIFY

Max-Forwards: 70

Date: Wed, 10 Nov 2010 21:47:54 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Subscription-State: terminated;reason=timeout

Contact: <sip:1005@10.89.78.205:5060;transport=tcp>

Content-Type: application/kpml-response+xml

Content-Length: 348

<?xml version="1.0" encoding="UTF-8" ?>

<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits="" forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[73] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1f1c5f9e27

From: <sip:1005@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-23826270

To: <sip:2001@10.89.78.195>;tag=327~e811c00a-4a66-4296-a800-0718da03b731-23818926

Date: Wed, 10 Nov 2010 21:47:54 GMT

Call-ID: 1a3a3080-cdb112ee-26-c34e590a@10.89.78.195

CSeq: 103 NOTIFY

Content-Length: 0

CISCO CONFIDENTIAL**2. DTMF****2.1 Call between Cisco Unified CM SCCP Phone and SIP Gateway using OOB Notify**

Title: Call between Cisco Unified CM SCCP Phone and SIP Gateway using OOB Notify

Description:

The following call flow illustrates the SIP messaging that takes place between a SCCP phone hosted by a Cisco Unified CM and a SIP Gateway via a SIP trunk. The SIP trunk DTMF Signaling Method is configured for NoPreference and the SIP GW dtmf-relay for the associated dial peer is configured for sip-notify.

Use of OOB Notify messages to pass DTMF digits is negotiated using the Call-Info header.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Gateway, IP = 10.18.1.28

Phone = A, Line = 1001, IP = 10.8.28.121, Model = SCCP

Phone = B, Line = 88991000, Model = FXPS

SIP Trunk between Unified CM1 & Gateway has

a) route pattern 3.XXXXXXXX

b) DTMF Signaling "No preference"

"dtmf-relay" on the SIP Gateway is configured to "sip-notify"

Scenario:

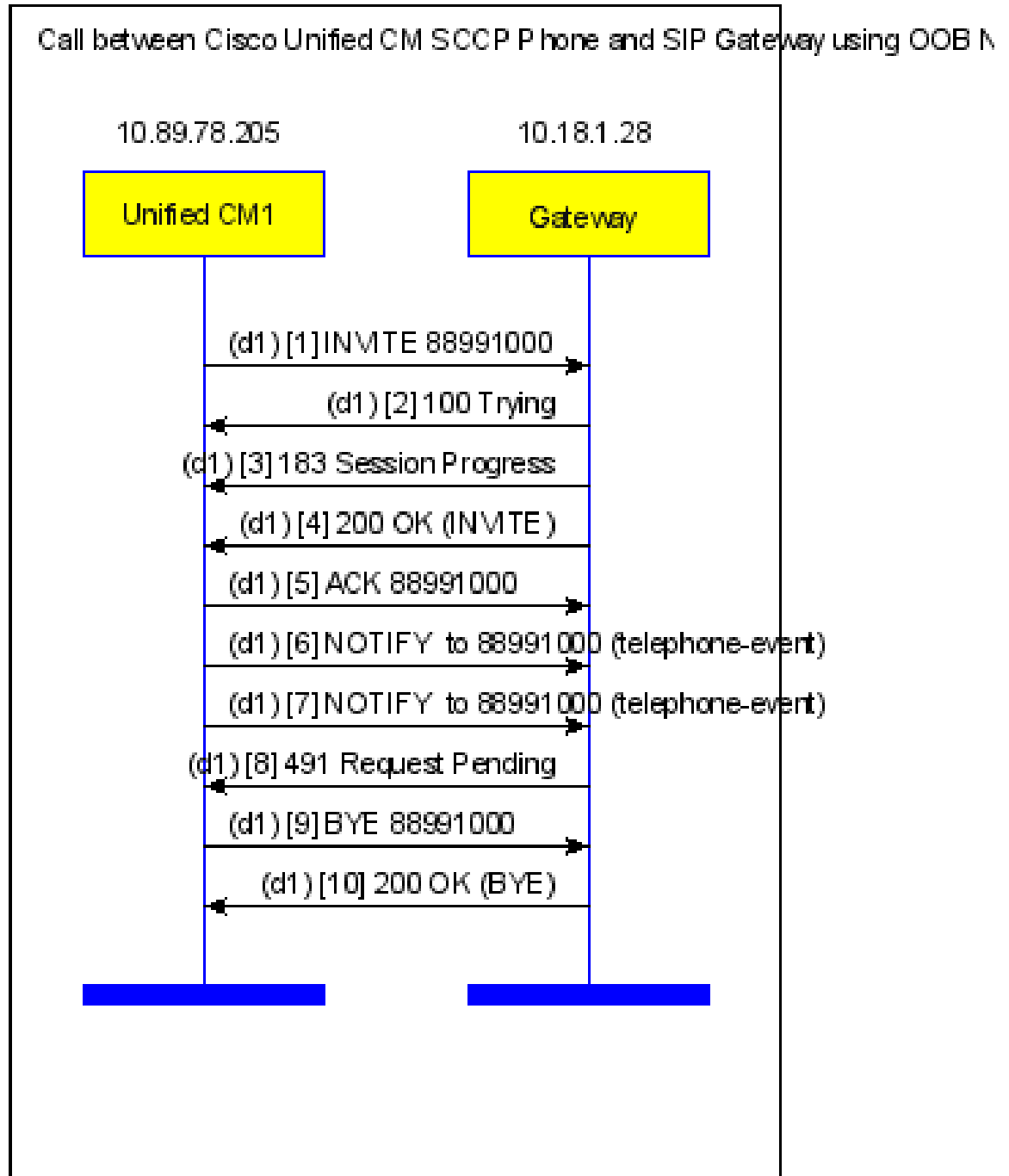
Phone A DN 1001 calls Phone B DN 88991000 over the SIP Trunk by dialing 388991000

Phone B DN 88991000 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:88991000@10.18.1.28:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK252c0a0018
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>
 Date: Fri, 03 Dec 2010 19:01:51 GMT
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3355557632-0000065536-0000000014-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK252c0a0018
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>
 Date: Thu, 26 Jun 2008 20:18:35 GMT
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow-Events: telephone-event
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK252c0a0018
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>;tag=575AC0BC-68C
 Date: Thu, 26 Jun 2008 20:18:35 GMT
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Call-Info: <sip:10.18.1.28:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 218

v=0
 o=CiscoSystemsSIP-GW-UserAgent 7431 6623 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 19566 RTP/AVP 0 19
 c=IN IP4 10.18.1.28
 a=rtpmap:0 PCMU/8000
 a=rtpmap:19 CN/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK252c0a0018
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>;tag=575AC0BC-68C
 Date: Thu, 26 Jun 2008 20:18:35 GMT
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Supported: replaces

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Call-Info: <sip:10.18.1.28:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Session-Expires: 1800;refresher=uac
 Require: timer
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 218

v=0
 o=CiscoSystemsSIP-GW-UserAgent 7431 6623 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 19566 RTP/AVP 0 19
 c=IN IP4 10.18.1.28
 a=rtpmap:0 PCMU/8000
 a=rtpmap:19 CN/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK26409b02b6
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>;tag=575AC0BC-68C
 Date: Fri, 03 Dec 2010 19:01:51 GMT
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 155

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.121
 t=0 0
 m=audio 26588 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] NOTIFY sip:10.18.1.28:5060 SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2775756d9f
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>;tag=575AC0BC-68C
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 19:02:25 GMT
 User-Agent: Cisco-CUCM8.5
 Event: telephone-event
 Subscription-State: active
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Content-Type: audio/telephone-event
 Content-Length: 4

{binary content not shown}

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] NOTIFY sip:10.18.1.28:5060 SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK287f0148eb
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>;tag=575AC0BC-68C
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 19:02:25 GMT
 User-Agent: Cisco-CUCM8.5
 Event: telephone-event
 Subscription-State: active
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Content-Type: audio/telephone-event
 Content-Length: 4

{binary content not shown}

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 491 Request Pending

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK287f0148eb
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>;tag=575AC0BC-68C
 Date: Thu, 26 Jun 2008 20:19:09 GMT
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] BYE sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK297892cf2d
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>;tag=575AC0BC-68C
 Date: Fri, 03 Dec 2010 19:01:51 GMT
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK297892cf2d
 From: <sip:1001@10.89.78.205>;tag=23~1ebcd687-60ae-450a-823c-0469b2740097-31534601
 To: <sip:88991000@10.18.1.28>;tag=575AC0BC-68C
 Date: Thu, 26 Jun 2008 20:19:14 GMT
 Call-ID: c801bf00-cf913e9f-e-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 104 BYE
 Reason: Q.850;cause=16
 Content-Length: 0

CISCO CONFIDENTIAL**2.2 Call between Cisco Unified CM SCCP Phone and SIP Gateway using KPML**

Title: Call between Cisco Unified CM SCCP Phone and SIP Gateway using KPML

Description:

The following call flow illustrates the SIP messaging that takes place between a SCCP phone hosted by a Cisco Unified CM and a SIP Gateway via a SIP trunk. The SIP trunk DTMF Signaling Method is configured for NoPreference and the SIP GW dtmf-relay for the associated dial peer is configured for sip-kpml.

Traces to note are the bi-directional subscriptions for DTMF notification between the Cisco Unified CM and the Gateway and the NOTIFY methods exchanged when the digit 1 is pressed from the called and calling party phones. Note that once the call is released the Cisco Unified CM and the SIP GW will terminate both local and remote KPML subscriptions. Therefore, it is normal to see the Cisco Unified CM either send or receive a 489 Bad Event. This signifies that the subscription has already been removed.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Gateway, IP = 10.18.1.28

Phone = A, Line = 1001, IP = 10.8.28.121, Model = SCCP

Phone = B, Line = 88991000, Model = FXPS

SIP Trunk between Unified CM1 & Gateway has

a) route pattern 3.XXXXXXXX

b) DTMF Signaling "No preference"

"dtmf-relay" on the SIP Gateway is configured to "sip-kpml"

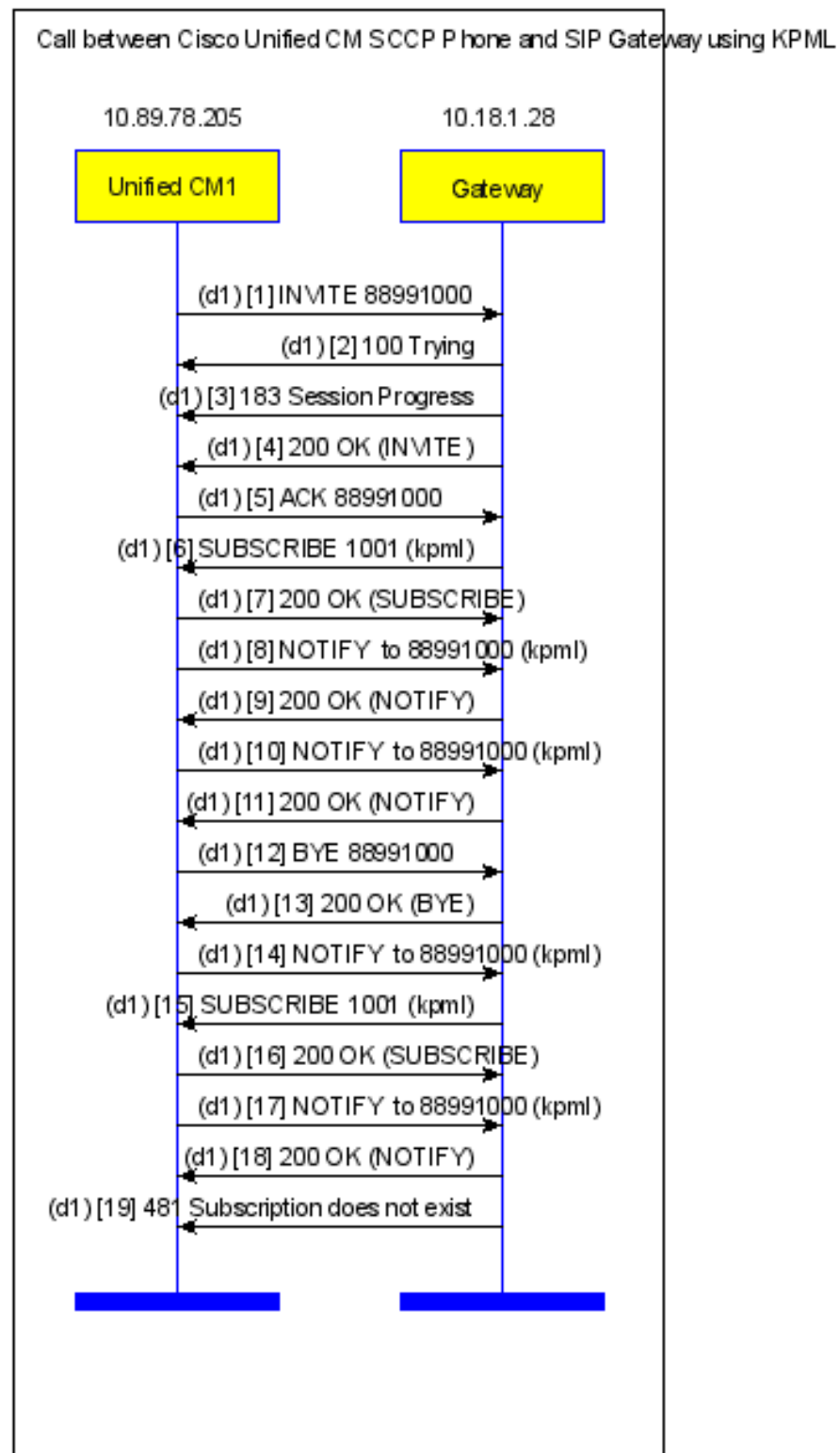
Scenario:

Phone A DN 1001 calls Phone B DN 3601 over the SIP Trunk by dialing 388991000

Phone B DN 88991000 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:88991000@10.18.1.28:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2a44f22b35
 From: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>
 Date: Fri, 03 Dec 2010 19:08:53 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3280590336-0000065536-0000000015-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2a44f22b35
 From: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>
 Date: Thu, 26 Jun 2008 20:25:37 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow-Events: kpml, telephone-event
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2a44f22b35
 From: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Thu, 26 Jun 2008 20:25:37 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: kpml, telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 217

v=0
 o=CiscoSystemsSIP-GW-UserAgent 5640 302 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 16492 RTP/AVP 0 19
 c=IN IP4 10.18.1.28
 a=rtpmap:0 PCMU/8000
 a=rtpmap:19 CN/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2a44f22b35
 From: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Thu, 26 Jun 2008 20:25:37 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: kpml, telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Supported: replaces
 Session-Expires: 1800;refresher=uac

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Require: timer
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 217

v=0
 o=CiscoSystemsSIP-GW-UserAgent 5640 302 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 16492 RTP/AVP 0 19
 c=IN IP4 10.18.1.28
 a=rtpmap:0 PCMU/8000
 a=rtpmap:19 CN/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b3c3385a3
 From: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Fri, 03 Dec 2010 19:08:53 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 155

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.121
 t=0 0
 m=audio 19640 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SUBSCRIBE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bK10410D9
 From: <sip:88991000@10.18.1.28>;tag=57613170-91
 To: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 101 SUBSCRIBE
 Max-Forwards: 70
 Date: Thu, 26 Jun 2008 20:26:08 GMT
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Event: kpml
 Expires: 7200
 Contact: <sip:10.18.1.28:5060;transport=tcp>
 Content-Type: application/kpml-request+xml
 Content-Length: 327

```
<?xml version="1.0" encoding="UTF-8"?><kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-
request kpml-request.xsd" version="1.0"><pattern persist="persist"><regex
tag="dtmf">[x*#ABCD]</regex></pattern></kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bK10410D9
 From: <sip:88991000@10.18.1.28>;tag=57613170-91
 To: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 Date: Fri, 03 Dec 2010 19:09:24 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 101 SUBSCRIBE
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2c4645cf05
 From: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 19:09:24 GMT

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User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2c4645cf05
 From: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Thu, 26 Jun 2008 20:26:08 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2d168bcf89
 From: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 19:09:48 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7176
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Content-Type: application/kpml-response+xml
 Content-Length: 336

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="200" digits="1"
forced_flush="false" suppressed="false" tag="dtmf" text="Success" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2d168bcf89
 From: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Thu, 26 Jun 2008 20:26:33 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] BYE sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2e1d7c7c8b
 From: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Fri, 03 Dec 2010 19:08:53 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2e1d7c7c8b
 From: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Thu, 26 Jun 2008 20:26:40 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 104 BYE
 Reason: Q.850;cause=16
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f12b49316
 From: <sip:1001@10.89.78.205>;tag=25~1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205

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CSeq: 105 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 19:09:56 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SUBSCRIBE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bK105D19
 From: <sip:88991000@10.18.1.28>;tag=57613170-91
 To: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Max-Forwards: 70
 Date: Thu, 26 Jun 2008 20:26:40 GMT
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Event: kpml
 Expires: 0
 Contact: <sip:10.18.1.28:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bK105D19
 From: <sip:88991000@10.18.1.28>;tag=57613170-91
 To: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 Date: Fri, 03 Dec 2010 19:09:56 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3060f650ec
 From: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 19:09:56 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f12b49316
 From: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Thu, 26 Jun 2008 20:26:40 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 105 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 481 Subscription does not exist
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3060f650ec
 From: <sip:1001@10.89.78.205>;tag=25-1ebcd687-60ae-450a-823c-0469b2740097-31534603
 To: <sip:88991000@10.18.1.28>;tag=57613170-91
 Date: Thu, 26 Jun 2008 20:26:40 GMT
 Call-ID: c389d600-cf914045-f-cd4e590a@10.89.78.205
 CSeq: 106 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**2.3 Call between Cisco Unified CM SCCP Phone and SIP Gateway using RFC2833**

Title: Call between Cisco Unified CM SCCP Phone and SIP Gateway using RFC2833

Description:

The following call flow illustrates the SIP messaging that takes place between a SCCP phone hosted by a Cisco Unified CM and a SIP Gateway via a SIP trunk. The SIP trunk DTMF Signaling Method is configured for NoPreference and the SIP GW dtmf-relay for the associated dial peer is configured for rtp-nte.

Because both SCCP phone and SIP Gateway support RFC2833 style DTMF signaling no out-of-band DTMF signaling takes place. The DTMF will be strictly negotiated in SDP and signaled via media. In this example DTMF tones are sent in the media stream using a Payload Type of 101 (as shown in the SDP).

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Gateway, IP = 10.18.1.28

Phone = A, Line = 1001, IP = 10.8.28.121, Model = SCCP

Phone = B, Line = 88991000, Model = FXPS

SIP Trunk between Unified CM1 & Gateway has

a) route pattern 3.XXXXXXXXXX

b) DTMF Signaling "No preference"

"dtmf-relay" on the SIP Gateway is configured to "rtp-nte"

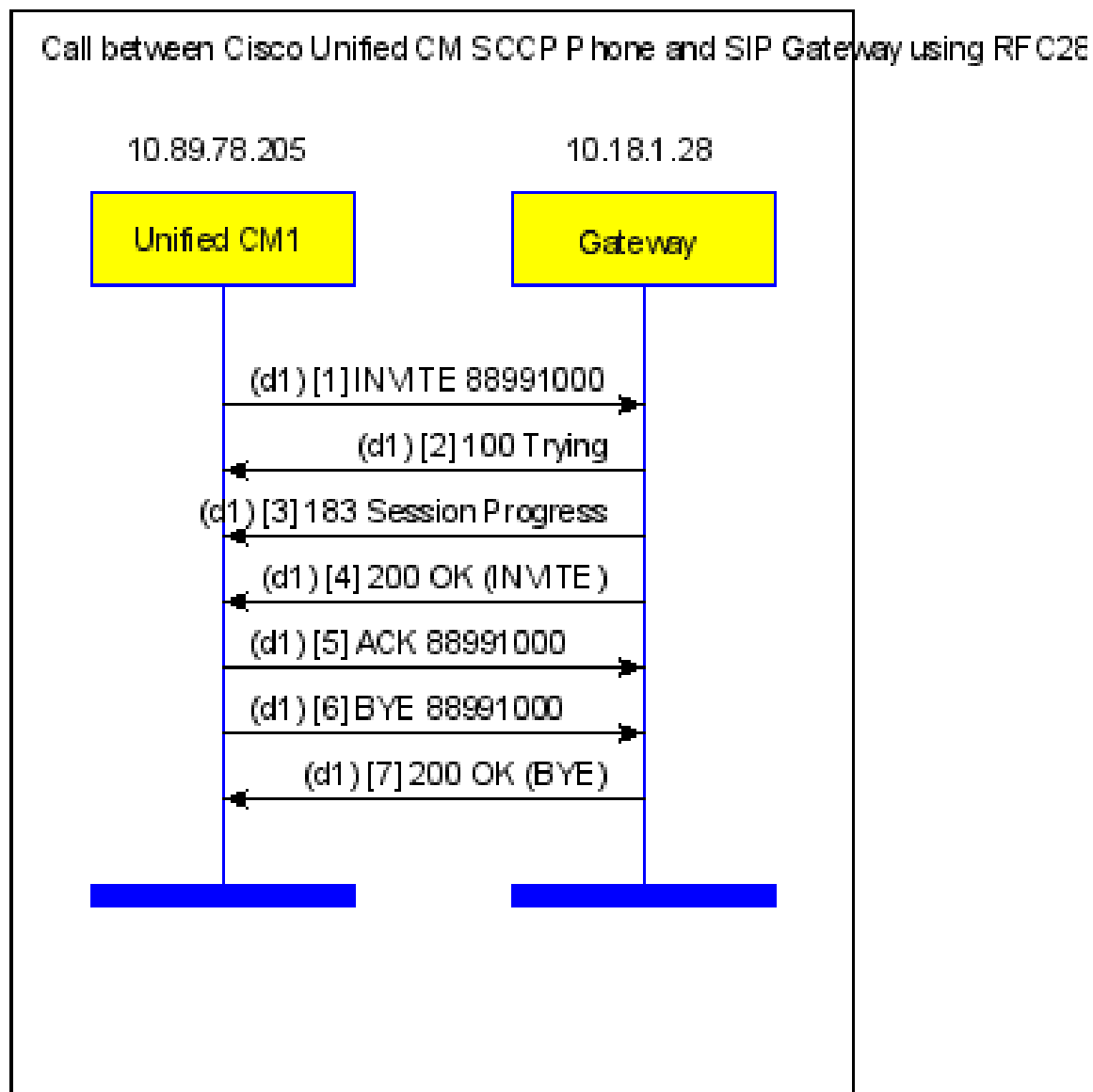
Scenario:

Phone A DN 1001 calls Phone B DN 88991000 over the SIP Trunk by dialing 388991000

Phone B DN 88991000 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:88991000@10.18.1.28:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK18782cc4c1
 From: <sip:1001@10.89.78.205>;tag=17~1ebcd687-60ae-450a-823c-0469b2740097-31534595
 To: <sip:88991000@10.18.1.28>
 Date: Fri, 03 Dec 2010 18:46:56 GMT
 Call-ID: b28b9580-cf913b20-b-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2995492224-0000065536-0000000011-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK18782cc4c1
 From: <sip:1001@10.89.78.205>;tag=17~1ebcd687-60ae-450a-823c-0469b2740097-31534595
 To: <sip:88991000@10.18.1.28>
 Date: Thu, 26 Jun 2008 20:03:40 GMT
 Call-ID: b28b9580-cf913b20-b-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow-Events: telephone-event
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK18782cc4c1
 From: <sip:1001@10.89.78.205>;tag=17~1ebcd687-60ae-450a-823c-0469b2740097-31534595
 To: <sip:88991000@10.18.1.28>;tag=574D181C-196C
 Date: Thu, 26 Jun 2008 20:03:40 GMT
 Call-ID: b28b9580-cf913b20-b-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 274

v=0
 o=CiscoSystemsSIP-GW-UserAgent 7258 7847 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 16458 RTP/AVP 0 101 19
 c=IN IP4 10.18.1.28
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-16
 a=rtpmap:19 CN/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK18782cc4c1
 From: <sip:1001@10.89.78.205>;tag=17~1ebcd687-60ae-450a-823c-0469b2740097-31534595
 To: <sip:88991000@10.18.1.28>;tag=574D181C-196C
 Date: Thu, 26 Jun 2008 20:03:40 GMT
 Call-ID: b28b9580-cf913b20-b-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>

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Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 274

v=0
 o=CiscoSystemsSIP-GW-UserAgent 7258 7847 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 16458 RTP/AVP 0 101 19
 c=IN IP4 10.18.1.28
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-16
 a=rtpmap:19 CN/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK19165f8e04
 From: <sip:1001@10.89.78.205>;tag=17~1ebcd687-60ae-450a-823c-0469b2740097-31534595
 To: <sip:88991000@10.18.1.28>;tag=574D181C-196C
 Date: Fri, 03 Dec 2010 18:46:56 GMT
 Call-ID: b28b9580-cf913b20-b-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.121
 t=0 0
 m=audio 18998 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] BYE sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1a6fe553ec
 From: <sip:1001@10.89.78.205>;tag=17~1ebcd687-60ae-450a-823c-0469b2740097-31534595
 To: <sip:88991000@10.18.1.28>;tag=574D181C-196C
 Date: Fri, 03 Dec 2010 18:46:56 GMT
 Call-ID: b28b9580-cf913b20-b-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1a6fe553ec
 From: <sip:1001@10.89.78.205>;tag=17~1ebcd687-60ae-450a-823c-0469b2740097-31534595
 To: <sip:88991000@10.18.1.28>;tag=574D181C-196C
 Date: Thu, 26 Jun 2008 20:04:15 GMT
 Call-ID: b28b9580-cf913b20-b-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 102 BYE
 Reason: Q.850;cause=16
 Content-Length: 0

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3. Presence

3.1 Outgoing Presence Subscription

Title: Outgoing Presence Subscription

Description:

The scenario showing the outgoing BLF subscription for Presence from SCCP phone (1001) on "Cisco Unified CM1" through SIP Trunk to "Cisco Unified CM2" for remote party (DN 2002).

- 1) The "Cisco Unified CM2" sends the 200 OK for Subscriber, then it sends a NOTIFY with Subscription-State: active;expires=3600 and PIDF XML with status 'open'.
- 2) When the remote party (DN 2002) is offhook then "Cisco Unified CM2" sends a NOTIFY with PIDF XML containing status <e:activities>on-the-phone</e:activities>.
- 3) When the remote party (DN 2002) is onhook, then "Cisco Unified CM" sends a NOTIFY with PIDF XML containing status 'open'.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Scenario:

Phone A DN 1001 configures the BLF-SD set to 22002

Phone A DN 1001 sends Subscription for Phone B DN 2002 events.

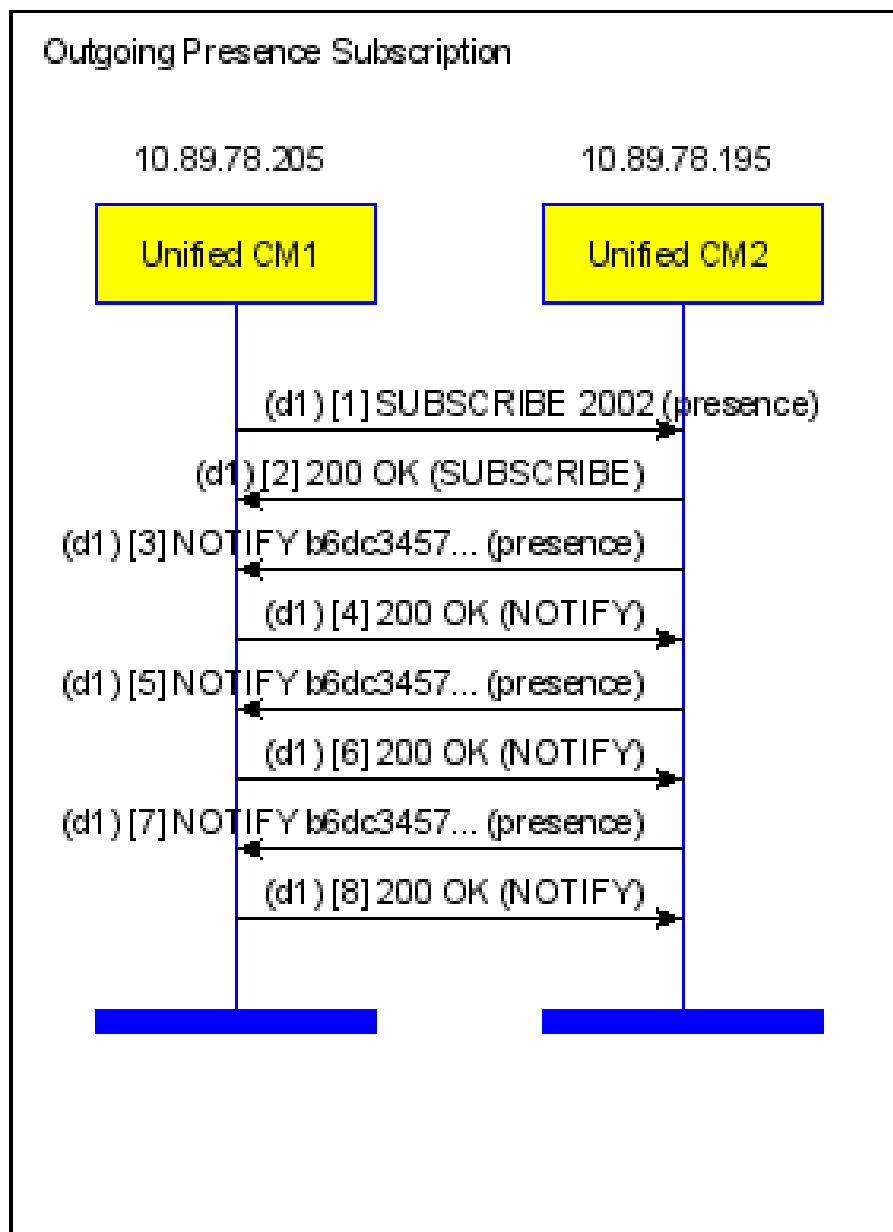
Phone B DN 2002 goes offHook

Phone A receives Notification that Phone B DN 2002 is offHook

Phone B DN 1001 goes onHook

Phone A receives Notification that Phone B DN 2002 is onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] SUBSCRIBE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1d2815def8
 From: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=1846371141
 To: <sip:2002@10.89.78.195>
 Call-ID: 6ea0f000-ccb13fc9-15-cd4e590a@10.89.78.205
 CSeq: 101 SUBSCRIBE
 Date: Fri, 29 Oct 2010 21:42:33 GMT
 User-Agent: Cisco-CUCM8.5
 Event: presence
 Expires: 10800
 Contact: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp>
 Accept: application/pidf+xml
 Max-Forwards: 69
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1d2815def8
 From: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=1846371141
 To: <sip:2002@10.89.78.195>;tag=144209532
 Date: Fri, 29 Oct 2010 21:42:33 GMT
 Call-ID: 6ea0f000-ccb13fc9-15-cd4e590a@10.89.78.205
 CSeq: 101 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 10800
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK196a772da0
 From: <sip:2002@10.89.78.195>;tag=144209532
 To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=1846371141
 Call-ID: 6ea0f000-ccb13fc9-15-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Fri, 29 Oct 2010 21:42:33 GMT
 User-Agent: Cisco-CUCM8.5
 Event: presence
 Subscription-State: active;expires=10800
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/pidf+xml
 Content-Length: 731

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>open</basic>
    </status>
    <e:activities>
      </e:activities>
    </dm:person>
    <tuple id="cmp-1-920">
      <status>
        <basic>open</basic>
      </status>
      <sc:servcaps>
        <sc:audio>true</sc:audio>
      </sc:servcaps>
      <contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
      <timestamp>2010-10-29T21:42:33Z</timestamp>
    </tuple>
  </presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK196a772da0
 From: <sip:2002@10.89.78.195>;tag=144209532
 To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=1846371141
 Date: Fri, 29 Oct 2010 21:42:33 GMT
 Call-ID: 6ea0f000-ccb13fc9-15-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1a77337942

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```

From: <sip:2002@10.89.78.195>;tag=144209532
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=1846371141
Call-ID: 6ea0f000-ccb13fc9-15-cd4e590a@10.89.78.205
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Fri, 29 Oct 2010 21:43:02 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Subscription-State: active;expires=10771
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/pidf+xml
Content-Length: 824

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>open</basic>
    </status>
    <e:activities>
      <e:on-the-phone/>
    </e:activities>
  </dm:person>
  <tuple id="cmp-1-920">
    <status>
      <basic>open</basic>
      <e:activities>
        <e:on-the-phone/>
      </e:activities>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
    <timestamp>2010-10-29T21:43:02Z</timestamp>
  </tuple>
</presence>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1a77337942
From: <sip:2002@10.89.78.195>;tag=144209532
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=1846371141
Date: Fri, 29 Oct 2010 21:43:02 GMT
Call-ID: 6ea0f000-ccb13fc9-15-cd4e590a@10.89.78.205
CSeq: 102 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1bdeb1957
From: <sip:2002@10.89.78.195>;tag=144209532
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=1846371141
Call-ID: 6ea0f000-ccb13fc9-15-cd4e590a@10.89.78.205
CSeq: 103 NOTIFY
Max-Forwards: 70
Date: Fri, 29 Oct 2010 21:43:08 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Subscription-State: active;expires=10765
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/pidf+xml
Content-Length: 731

```

```

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>open</basic>
    </status>
    <e:activities>
      <e:on-the-phone/>
    </e:activities>
  </dm:person>
  <tuple id="cmp-1-920">
    <status>
      <basic>open</basic>
    </status>
    <e:activities>
      <e:on-the-phone/>
    </e:activities>
  </tuple>
</presence>

```

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```
</status>
<sc:servcaps>
  <sc:audio>true</sc:audio>
</sc:servcaps>
<contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
<timestamp>2010-10-29T21:43:08Z</timestamp>
</tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1bdeb1957

From: <sip:2002@10.89.78.195>;tag=144209532

To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=1846371141

Date: Fri, 29 Oct 2010 21:43:08 GMT

Call-ID: 6ea0f000-ccb13fc9-15-cd4e590a@10.89.78.205

CSeq: 103 NOTIFY

Content-Length: 0

CISCO CONFIDENTIAL**3.2 Incoming Presence Subscription**

Title: Incoming Presence Subscription

Description:

The scenario for incoming 'presence' subscription on Cisco Unified CM's SIP trunk for the SIP phone's (DN:1001) BLF status.

The SUBSCRIBE request with header 'Event: presence' is received by the sip trunk.

- 1) The request is forwarded to the Notifier/SubscriptionManager modules for processing.
- 2) The Notifier/SM authorizes the request & sends the 200 OK (for Subscribe).
- 3) On getting the notification with info about the subscriber, Notifier sends the Notify request on sip trunk, carrying the BLF status in PIDF XML.
- 4) The remote (Cisco Unified CM2) responds by sending 200 OK for Notify.
- 5) When the SCCP 1001 is offhook another NOTIFY with "on-the-phone" in the PIDF is sent on the sip trunk.
- 6) When the SCCP 1001 is onhook again, another NOTIFY to update the status is sent.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has route pattern 1.XXXX

Scenario:

Phone B DN 2002 configures the BLF-SD set to 11001

Unified CM2 sends Subscription for Event:presence for phone 1001 to Unified CM1.

Phone A DN 1001 goes offHook

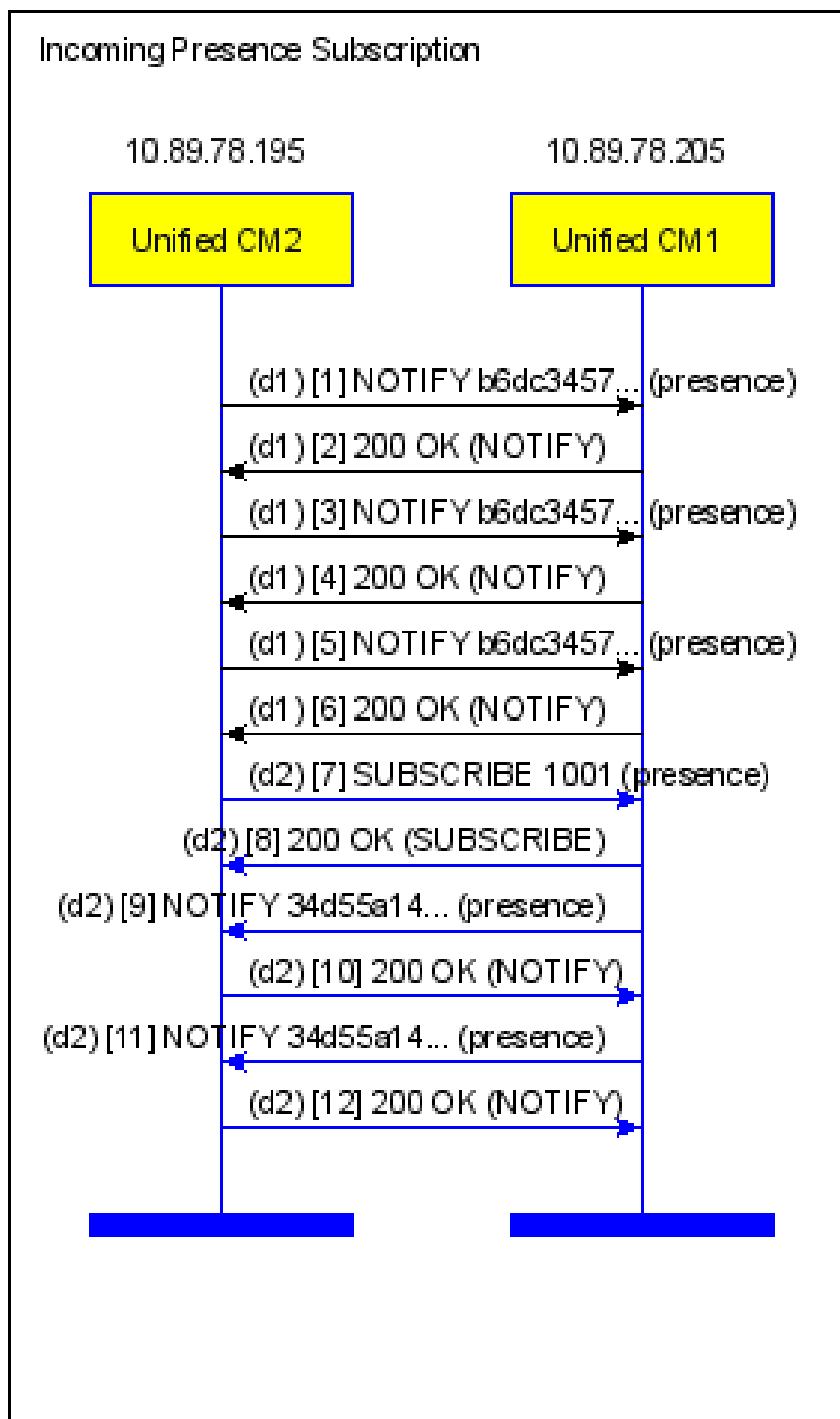
Phone B DN 2002 receives Notification that Phone A DN 1001 went offHook

Phone A DN 1001 goes onHook

Phone B receives Notification that Phone A DN 1001 is onHook

End of Scenario

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[diagram] Call-ID: [prev] [next]

[1] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK2f5f3e068e

From: <sip:2002@10.89.78.195>;tag=403351343

To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=795526621

Call-ID: 13bbc880-ccb140de-16-cd4e590a@10.89.78.205

CSeq: 114 NOTIFY

Max-Forwards: 70

Date: Fri, 29 Oct 2010 22:01:08 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Subscription-State: active;expires=9962

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Type: application/pidf+xml

Content-Length: 735

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>closed</basic>
    </status>
    <e:activities>
      </e:activities>
    </dm:person>
    <tuple id="cmp-1-923">
      <status>
        <basic>closed</basic>
      </status>
      <sc:servcaps>
        <sc:audio>true</sc:audio>
      </sc:servcaps>
      <contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
      <timestamp>2010-10-29T22:01:08Z</timestamp>
    </tuple>
  </presence>
```

[diagram] Call-ID: [prev] [next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK2f5f3e068e

From: <sip:2002@10.89.78.195>;tag=403351343

To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=795526621

Date: Fri, 29 Oct 2010 22:01:08 GMT

Call-ID: 13bbc880-ccb140de-16-cd4e590a@10.89.78.205

CSeq: 114 NOTIFY

Content-Length: 0

[diagram] Call-ID: [prev] [next]

[3] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK302482a9c2

From: <sip:2002@10.89.78.195>;tag=403351343

To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=795526621

Call-ID: 13bbc880-ccb140de-16-cd4e590a@10.89.78.205

CSeq: 115 NOTIFY

Max-Forwards: 70

Date: Fri, 29 Oct 2010 22:01:08 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Subscription-State: active;expires=9962

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Type: application/pidf+xml

Content-Length: 735

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>closed</basic>
    </status>
    <e:activities>
      </e:activities>
    </dm:person>
    <tuple id="cmp-1-923">
      <status>
        <basic>closed</basic>
      </status>
```

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```

<sc:servcaps>
  <sc:audio>true</sc:audio>
</sc:servcaps>
<contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
<timestamp>2010-10-29T22:01:08Z</timestamp>
</tuple>
</presence>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[4] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK302482a9c2
From: <sip:2002@10.89.78.195>;tag=403351343
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=795526621
Date: Fri, 29 Oct 2010 22:01:08 GMT
Call-ID: 13bbc880-ccb140de-16-cd4e590a@10.89.78.205
CSeq: 115 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK31782dd8c2
From: <sip:2002@10.89.78.195>;tag=403351343
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=795526621
Call-ID: 13bbc880-ccb140de-16-cd4e590a@10.89.78.205
CSeq: 116 NOTIFY
Max-Forwards: 70
Date: Fri, 29 Oct 2010 22:01:11 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Subscription-State: active;expires=9959
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/pidf+xml
Content-Length: 731

```

```

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>open</basic>
    </status>
    <e:activities>
      </e:activities>
    </dm:person>
    <tuple id="cmp-1-923">
      <status>
        <basic>open</basic>
      </status>
      <sc:servcaps>
        <sc:audio>true</sc:audio>
      </sc:servcaps>
      <contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
      <timestamp>2010-10-29T22:01:11Z</timestamp>
    </tuple>
  </presence>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK31782dd8c2
From: <sip:2002@10.89.78.195>;tag=403351343
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=795526621
Date: Fri, 29 Oct 2010 22:01:11 GMT
Call-ID: 13bbc880-ccb140de-16-cd4e590a@10.89.78.205
CSeq: 116 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SUBSCRIBE sip:1001@10.89.78.205:5060 SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3236c4a9a6
From: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195>;tag=2048483567
To: <sip:1001@10.89.78.205>
Call-ID: 9023300-ccb14427-8-c34e590a@10.89.78.195
CSeq: 101 SUBSCRIBE
Date: Fri, 29 Oct 2010 22:01:11 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 10800
Contact: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195:5060;transport=tcp>
Accept: application/pidf+xml

```

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Max-Forwards: 69
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3236c4a9a6
From: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195>;tag=2048483567
To: <sip:1001@10.89.78.205>;tag=1695418169
Date: Fri, 29 Oct 2010 22:01:11 GMT
Call-ID: 9023300-ccb14427-8-c34e590a@10.89.78.195
CSeq: 101 SUBSCRIBE
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Expires: 10800
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] NOTIFY sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2530305212
From: <sip:1001@10.89.78.205>;tag=1695418169
To: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195>;tag=2048483567
Call-ID: 9023300-ccb14427-8-c34e590a@10.89.78.195
CSeq: 101 NOTIFY
Max-Forwards: 70
Date: Fri, 29 Oct 2010 22:01:11 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Subscription-State: active;expires=10800
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/pdf+xml
Content-Length: 730

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:1001@10.89.78.205"
xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>open</basic>
    </status>
    <e:activities>
      </e:activities>
    </dm:person>
    <tuple id="cmp-1-35">
      <status>
        <basic>open</basic>
      </status>
      <sc:servcaps>
        <sc:audio>true</sc:audio>
      </sc:servcaps>
      <contact priority="0.8">sip:1001@10.89.78.205:5060</contact>
      <timestamp>2010-10-29T22:01:11Z</timestamp>
    </tuple>
  </presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2530305212
From: <sip:1001@10.89.78.205>;tag=1695418169
To: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195>;tag=2048483567
Date: Fri, 29 Oct 2010 22:01:11 GMT
Call-ID: 9023300-ccb14427-8-c34e590a@10.89.78.195
CSeq: 101 NOTIFY
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] NOTIFY sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK26455a9153
From: <sip:1001@10.89.78.205>;tag=1695418169
To: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195>;tag=2048483567
Call-ID: 9023300-ccb14427-8-c34e590a@10.89.78.195
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Fri, 29 Oct 2010 22:01:14 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Subscription-State: active;expires=10797
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/pdf+xml
Content-Length: 823

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```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:1001@10.89.78.205"
xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>open</basic>
    </status>
    <e:activities>
      <e:on-the-phone/>
    </e:activities>
  </dm:person>
  <tuple id="cmp-1-35">
    <status>
      <basic>open</basic>
      <e:activities>
        <e:on-the-phone/>
      </e:activities>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060</contact>
    <timestamp>2010-10-29T22:01:14Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK26455a9153

From: <sip:1001@10.89.78.205>;tag=1695418169

To: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195>;tag=2048483567

Date: Fri, 29 Oct 2010 22:01:14 GMT

Call-ID: 9023300-ccb14427-8-c34e590a@10.89.78.195

CSeq: 102 NOTIFY

Content-Length: 0

CISCO CONFIDENTIAL**3.3 Incoming Presence Forbidden for Authorization Failure**

Title: Incoming Presence Forbidden for Authorization Failure

Description:

The presence authorization failure for the scenario when incoming 'presence' subscription is received on Cisco Unified CM's SIP trunk for the SCCP phone's (DN:1001) BLF status.

The SUBSCRIBE request with header 'Event: presence' is received by the sip trunk. The request is forwarded to the Notifier/SubscriptionManager modules in Cisco Unified CM for processing. The Notifier/SM fails the authorization due to presence group mismatch & sends the "403 Forbidden" to remote for Subscribe.

Configuration:

Node = Remote UA, IP = 10.89.78.195

Node = Unified CM1, IP = 10.89.78.205

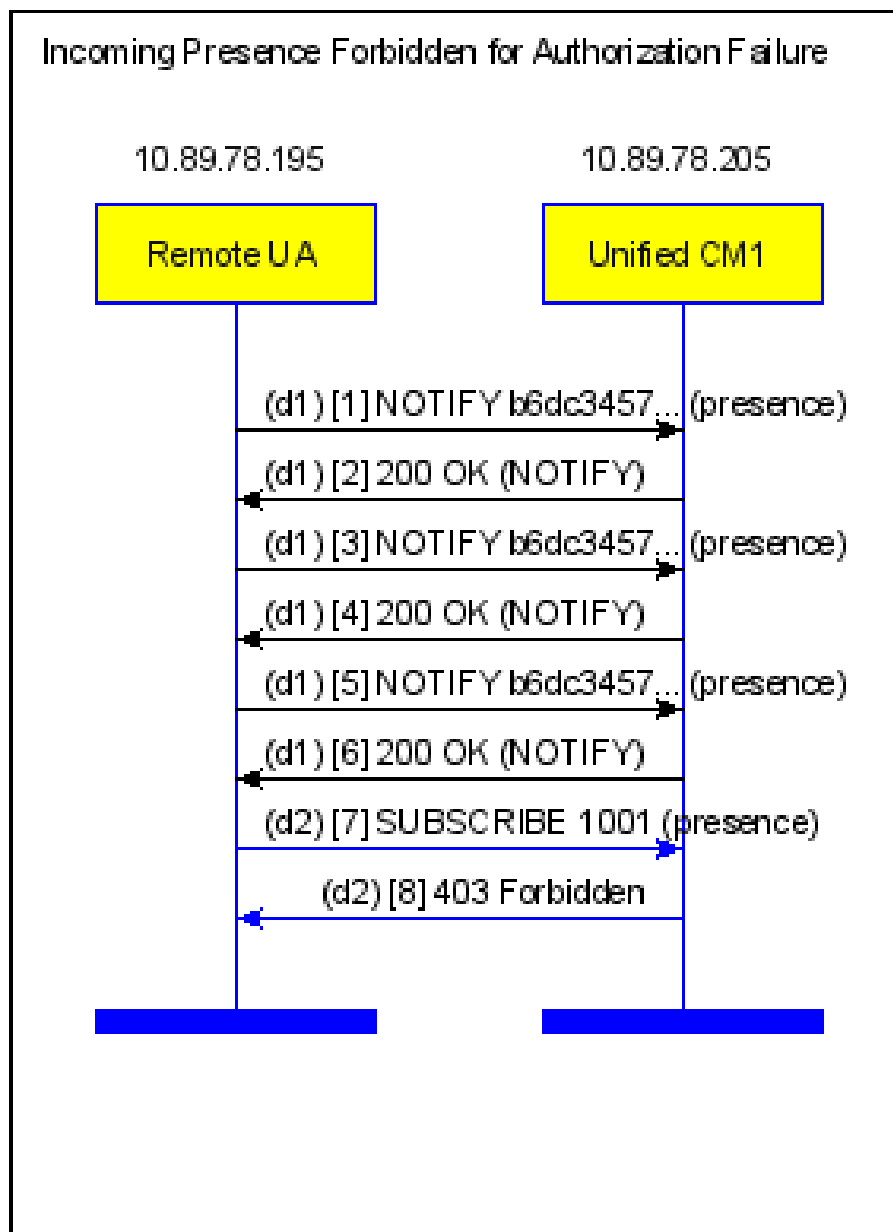
Unified CM1 has its SIP Trunk Security Profile configured to have "Accept Presence Subscription" unchecked.

Scenario:

Remote UA sends Presence Subscription message to Unified CM1

Unified CM1 rejects the message with 403

End of Scenario

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[diagram] Call-ID: [prev][next]

[1] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3a1c6f5717

From: <sip:2002@10.89.78.195>;tag=1888145142

To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=327279180

Call-ID: 45359380-ccb1448c-17-cd4e590a@10.89.78.205

CSeq: 105 NOTIFY

Max-Forwards: 70

Date: Fri, 29 Oct 2010 22:06:11 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Subscription-State: active;expires=10601

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Type: application/pidf+xml

Content-Length: 735

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>closed</basic>
    </status>
    <e:activities>
      </e:activities>
    </dm:person>
    <tuple id="cmp-1-935">
      <status>
        <basic>closed</basic>
      </status>
      <sc:servcaps>
        <sc:audio>true</sc:audio>
      </sc:servcaps>
      <contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
      <timestamp>2010-10-29T22:06:11Z</timestamp>
    </tuple>
  </presence>
```

[diagram] Call-ID: [prev][next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3a1c6f5717

From: <sip:2002@10.89.78.195>;tag=1888145142

To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=327279180

Date: Fri, 29 Oct 2010 22:06:11 GMT

Call-ID: 45359380-ccb1448c-17-cd4e590a@10.89.78.205

CSeq: 105 NOTIFY

Content-Length: 0

[diagram] Call-ID: [prev][next]

[3] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3be9b3c9d

From: <sip:2002@10.89.78.195>;tag=1888145142

To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=327279180

Call-ID: 45359380-ccb1448c-17-cd4e590a@10.89.78.205

CSeq: 106 NOTIFY

Max-Forwards: 70

Date: Fri, 29 Oct 2010 22:06:11 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Subscription-State: active;expires=10601

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Type: application/pidf+xml

Content-Length: 735

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>closed</basic>
    </status>
    <e:activities>
      </e:activities>
    </dm:person>
    <tuple id="cmp-1-935">
      <status>
        <basic>closed</basic>
      </status>
```

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```

<sc:servcaps>
  <sc:audio>true</sc:audio>
</sc:servcaps>
<contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
<timestamp>2010-10-29T22:06:11Z</timestamp>
</tuple>
</presence>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[4] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3be9b3c9d
From: <sip:2002@10.89.78.195>;tag=1888145142
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=327279180
Date: Fri, 29 Oct 2010 22:06:11 GMT
Call-ID: 45359380-ccb1448c-17-cd4e590a@10.89.78.205
CSeq: 106 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] NOTIFY sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3ca515911
From: <sip:2002@10.89.78.195>;tag=1888145142
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=327279180
Call-ID: 45359380-ccb1448c-17-cd4e590a@10.89.78.205
CSeq: 107 NOTIFY
Max-Forwards: 70
Date: Fri, 29 Oct 2010 22:06:14 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Subscription-State: active;expires=10598
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/pidf+xml
Content-Length: 731

```

```

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="sip:2002@10.89.78.195"
  xmlns:e="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd" xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <dm:person>
    <status>
      <basic>open</basic>
    </status>
    <e:activities>
      </e:activities>
    </dm:person>
    <tuple id="cmp-1-935">
      <status>
        <basic>open</basic>
      </status>
      <sc:servcaps>
        <sc:audio>true</sc:audio>
      </sc:servcaps>
      <contact priority="0.8">sip:2002@10.89.78.195:5060</contact>
      <timestamp>2010-10-29T22:06:14Z</timestamp>
    </tuple>
  </presence>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3ca515911
From: <sip:2002@10.89.78.195>;tag=1888145142
To: <sip:b6dc3457-1a23-4381-8b13-f8bfe0f886d0@10.89.78.205>;tag=327279180
Date: Fri, 29 Oct 2010 22:06:14 GMT
Call-ID: 45359380-ccb1448c-17-cd4e590a@10.89.78.205
CSeq: 107 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SUBSCRIBE sip:1001@10.89.78.205:5060 SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3d11b6c812
From: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195>;tag=807768656
To: <sip:1001@10.89.78.205>
Call-ID: bd9c5480-ccb14556-a-c34e590a@10.89.78.195
CSeq: 101 SUBSCRIBE
Date: Fri, 29 Oct 2010 22:06:14 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 10800
Contact: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195:5060;transport=tcp>
Accept: application/pidf+xml

```

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Max-Forwards: 69
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 403 Forbidden

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK3d11b6c812

From: <sip:34d55a14-1066-421c-91d7-338331f56c00@10.89.78.195>;tag=807768656

To: <sip:1001@10.89.78.205>;tag=2034229724

Date: Fri, 29 Oct 2010 22:06:14 GMT

Call-ID: bd9c5480-ccb14556-a-c34e590a@10.89.78.195

CSeq: 101 SUBSCRIBE

Content-Length: 0

CISCO CONFIDENTIAL**4. Transfer****4.1 Basic Attended Transfer Call via an Inter Cluster SIP Trunk**

Title: Basic Attended Transfer Call via an Inter Cluster SIP Trunk

Description:

The following basic call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an Inter Cluster SIP Trunk.

Cisco Unified IP Phone 1001 (registered with Unified CM1) calls Cisco Unified IP Phone 2002 (registered with Unified CM2) and Cisco Unified IP Phone 2002 made an attended transfer to Cisco Unified IP Phone 2001 (registered with Unified CM2 as well)

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

Phone = C, Line = 2001, IP = 10.13.5.220, Model = SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone B DN 2002 presses transfer softkey and dials Phone C DN 2001

Phone C DN 2001 is ringing

Phone C DN 2001 answers

Phone B DN 2002 presses Transfer softkey to complete the transfer

Phone A DN 1001 and Phone C DN 2001 are connected

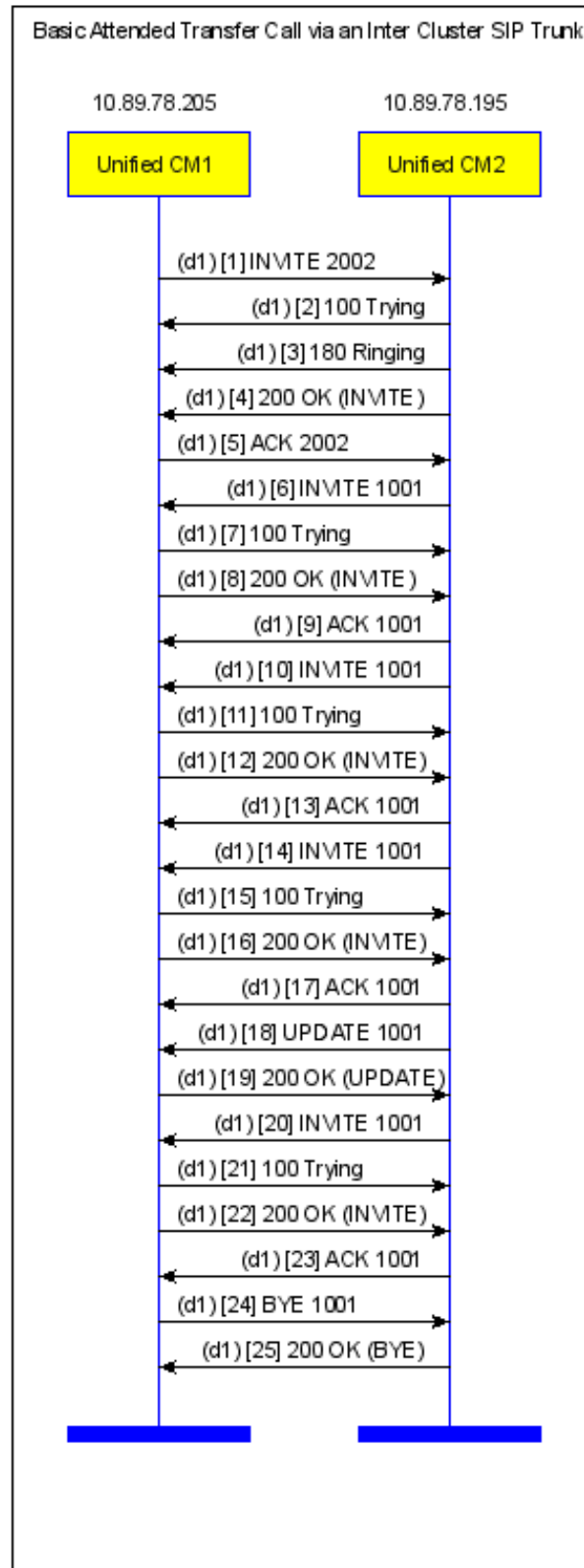
Phone A DN 1001 goes onHook

Phone C DN 2001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b64973dcf
 From: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 To: <sip:2002@10.89.78.195>
 Date: Fri, 29 Oct 2010 22:14:52 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 4066171776-00000065536-0000000020-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b64973dcf
 From: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 To: <sip:2002@10.89.78.195>
 Date: Fri, 29 Oct 2010 22:14:52 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b64973dcf
 From: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 To: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 Date: Fri, 29 Oct 2010 22:14:52 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2b64973dcf
 From: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 To: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 Date: Fri, 29 Oct 2010 22:14:52 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 18192 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2c2952c75a
From: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
To: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
Date: Fri, 29 Oct 2010 22:14:52 GMT
Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 24360 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4266ab1936
From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
Date: Fri, 29 Oct 2010 22:15:03 GMT
Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
Cisco-Guid: 4066171776-0000065536-0000000020-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 329

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 18192 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 100 Trying

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Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4266ab1936
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:03 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4266ab1936
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:03 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 24360 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK436c4208d2
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:03 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK442fc4b8f6
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:03 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 4066171776-0000065536-0000000020-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 100 Trying

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Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK442fc4b8f6
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:03 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK442fc4b8f6
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:03 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 25240 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4533557d32
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:03 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.89.78.195
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4850bc408
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:17 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800

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```

Cisco-Guid: 4066171776-0000065536-0000000020-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 184

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 100 Trying

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4850bc408
From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
Date: Fri, 29 Oct 2010 22:15:17 GMT
Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4850bc408
From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
Date: Fri, 29 Oct 2010 22:15:17 GMT
Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: timer
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 167

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 25240 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK497d5cc8a2
From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
Date: Fri, 29 Oct 2010 22:15:17 GMT
Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Length: 0

```

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[18] UPDATE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4c40d9373c
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:17 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[19] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4c40d9373c
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:17 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 104 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[20] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4e160e59d7
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:17 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 4066171776-0000065536-0000000020-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 105 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[21] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4e160e59d7
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:17 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[22] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK4e160e59d7
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:17 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

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Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 26696 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[23] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK52116845b5
 From: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 To: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 Date: Fri, 29 Oct 2010 22:15:17 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 105 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 17872 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[24] BYE sip:1001@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2d57b2372f
 From: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 To: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 Date: Fri, 29 Oct 2010 22:15:18 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[25] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2d57b2372f
 From: <sip:1001@10.89.78.205>;tag=40~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309425
 To: <sip:2002@10.89.78.195>;tag=945~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316645
 Date: Fri, 29 Oct 2010 22:15:31 GMT
 Call-ID: f25cdb80-ccb1475c-19-cd4e590a@10.89.78.205
 CSeq: 102 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**4.2 Basic Early Transfer Call via an Inter Cluster SIP Trunk**

Title: Basic Early Transfer Call via an Inter Cluster SIP Trunk

Description:

The following basic call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an Inter Cluster SIP Trunk.

Cisco Unified IP Phone 1001 (registered with Unified CM1) calls Cisco Unified IP Phone 2002 (registered with Unified CM2) and Cisco Unified IP Phone 2002 made an early transfer to Cisco Unified IP Phone 2001 (registered with Unified CM2 as well)

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

Phone = C, Line = 2001, IP = 10.13.5.220, Model = SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone B DN 2002 presses transfer softkey and dials Phone C DN 2001

Phone C DN 2001 is ringing

Phone B DN 2002 presses Transfer softkey to complete the transfer

Phone C DN 2001 answers

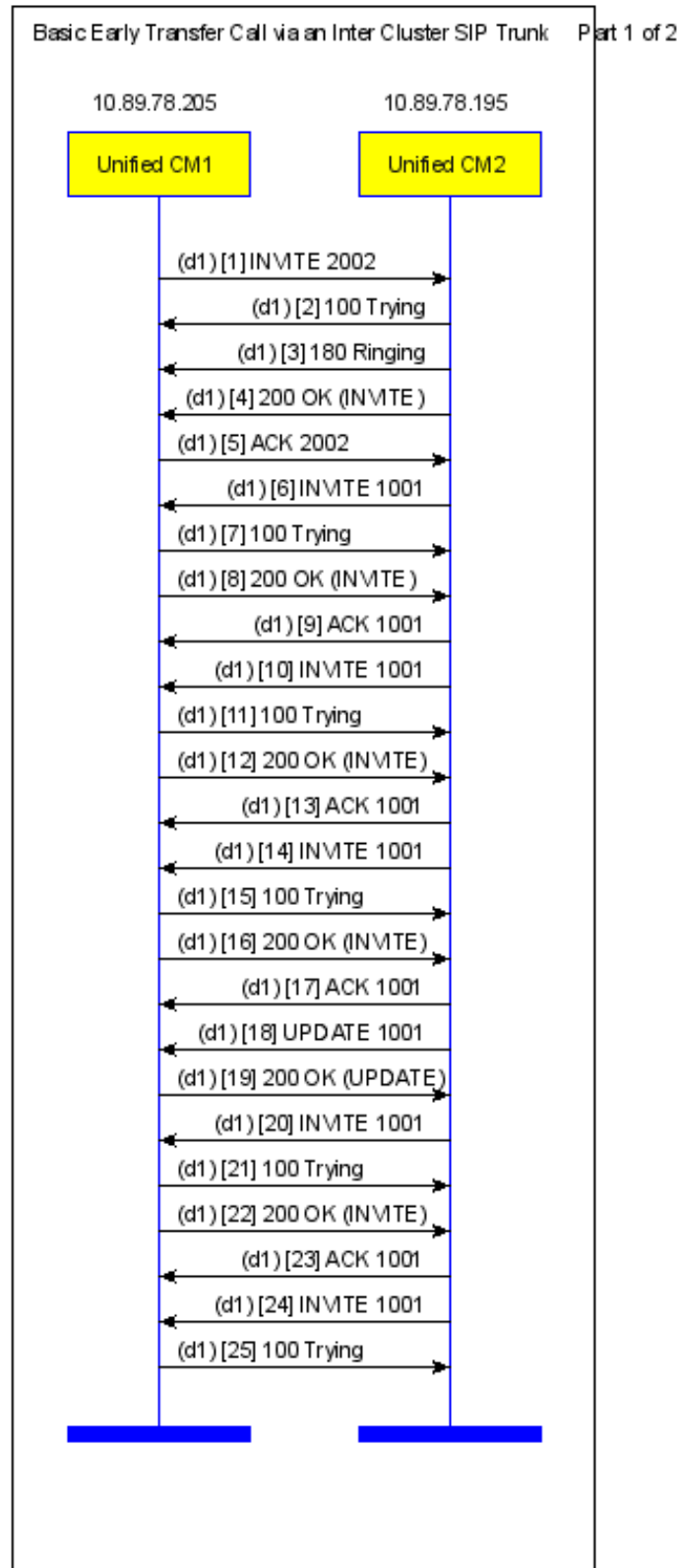
Phone A DN 1001 and Phone C DN 2001 are connected

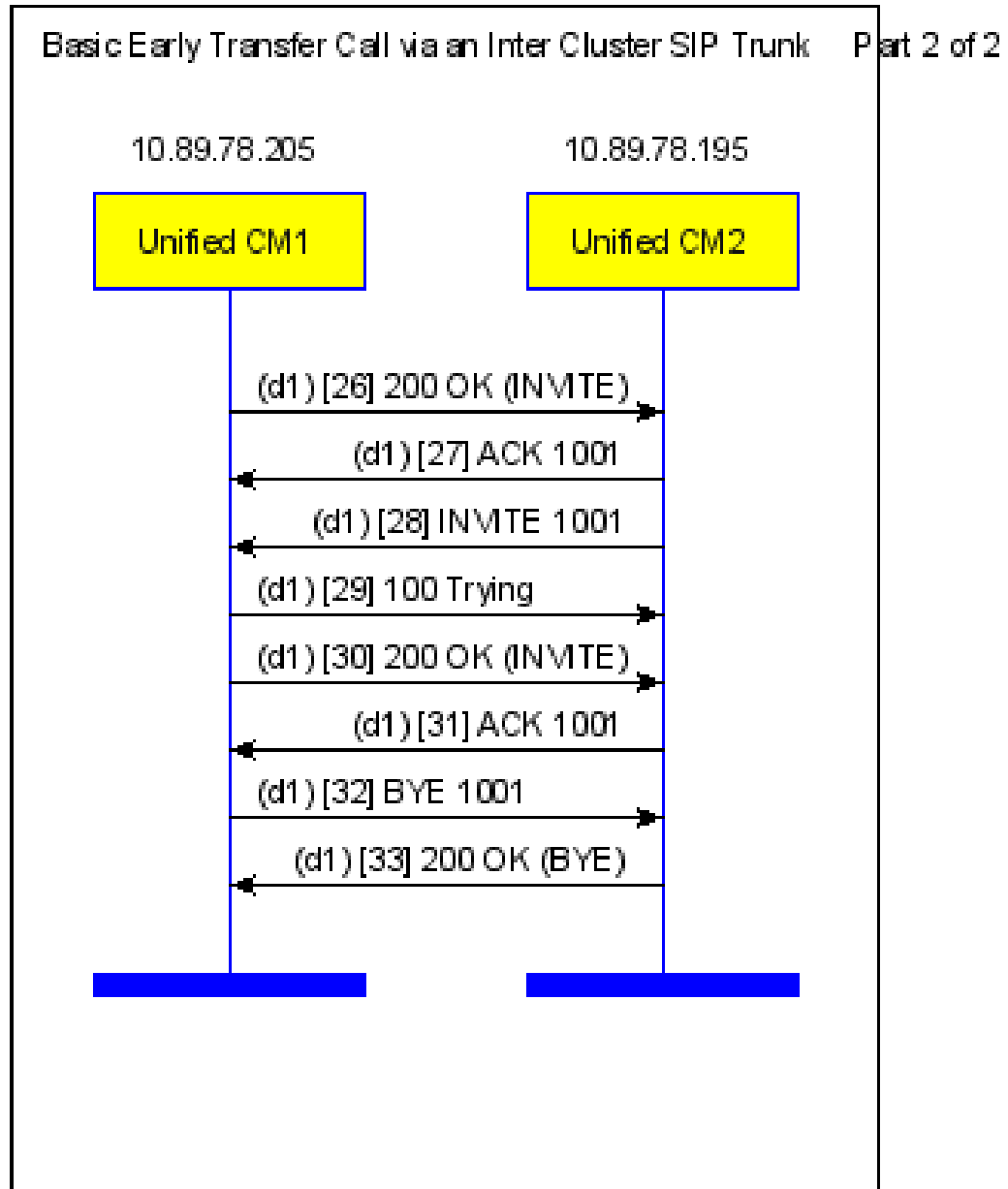
Phone A DN 1001 goes onHook

Phone C DN 2001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2e5e05d2e2
 From: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 To: <sip:2002@10.89.78.195>
 Date: Fri, 29 Oct 2010 22:17:31 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1361204480-00000065536-0000000021-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2e5e05d2e2
 From: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 To: <sip:2002@10.89.78.195>
 Date: Fri, 29 Oct 2010 22:17:31 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2e5e05d2e2
 From: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 To: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 Date: Fri, 29 Oct 2010 22:17:31 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2e5e05d2e2
 From: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 To: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 Date: Fri, 29 Oct 2010 22:17:31 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 17618 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f5f7b1b95
From: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
To: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
Date: Fri, 29 Oct 2010 22:17:31 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 23784 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[6] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK554dabbea7
From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
Date: Fri, 29 Oct 2010 22:17:36 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
Cisco-Guid: 1361204480-0000065536-0000000021-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 329

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 17618 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[7] SIP/2.0 100 Trying

```

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Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK554dabbea7
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:36 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK554dabbea7
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:36 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 23784 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK56e4812df
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:36 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK574ee56f06
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:36 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 1361204480-0000065536-0000000021-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 100 Trying

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Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK574ee56f06
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:36 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK574ee56f06
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:36 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 24122 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK58b32076e
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:36 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.89.78.195
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5a52339fcb
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:39 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800

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```

Cisco-Guid: 1361204480-0000065536-0000000021-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 184

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 100 Trying

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5a52339fcb
From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
Date: Fri, 29 Oct 2010 22:17:39 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5a52339fcb
From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
Date: Fri, 29 Oct 2010 22:17:39 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: timer
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 167

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 24122 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5b245c4c0b
From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
Date: Fri, 29 Oct 2010 22:17:39 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Length: 0

```

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[18] UPDATE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5c2ed82a47
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:39 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[19] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5c2ed82a47
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:39 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 104 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[20] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5ed2fed54
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:39 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 1361204480-0000065536-0000000021-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 105 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[21] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5ed2fed54
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:39 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[22] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5ed2fed54
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:39 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

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Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 24498 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[23] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK5f73f890b6
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:39 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 105 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.89.78.195
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[24] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK6071ae554c
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:45 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 1361204480-0000065536-0000000021-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 106 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 184

v=0
 o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.89.78.195

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```
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[25] SIP/2.0 100 Trying

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK6071ae554c
From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
Date: Fri, 29 Oct 2010 22:17:45 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
CSeq: 106 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK6071ae554c
From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
Date: Fri, 29 Oct 2010 22:17:45 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
CSeq: 106 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: timer
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 167
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 24498 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK6113c74ced
From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
Date: Fri, 29 Oct 2010 22:17:45 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 106 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK626ed24cc3
From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
Date: Fri, 29 Oct 2010 22:17:45 GMT
Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
Cisco-Guid: 1361204480-00000065536-0000000021-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 107 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
```

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Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK626ed24cc3
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:45 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 107 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK626ed24cc3
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:45 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 CSeq: 107 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 7 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 25082 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK63ffc08ec
 From: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650
 To: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427
 Date: Fri, 29 Oct 2010 22:17:45 GMT
 Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 107 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 7 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 31572 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[32] BYE sip:1001@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3044f3dc44

From: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427

To: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650

Date: Fri, 29 Oct 2010 22:17:45 GMT

Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

P-Asserted-Identity: <sip:1001@10.89.78.205>

CSeq: 102 BYE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[33] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3044f3dc44

From: <sip:1001@10.89.78.205>;tag=42~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309427

To: <sip:2002@10.89.78.195>;tag=951~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316650

Date: Fri, 29 Oct 2010 22:17:56 GMT

Call-ID: 51225500-ccb147fb-1a-cd4e590a@10.89.78.205

CSeq: 102 BYE

Content-Length: 0

CISCO CONFIDENTIAL**4.3 Attended Transfer Call using the Cisco Unified CM SIP Trunk**

Title: Attended Transfer Call using the Cisco Unified CM SIP Trunk

Description:

The following basic call flow illustrates the SIP messaging that takes place between Cisco Unified IP SCCP Phones and a SIP Proxy via a SIP trunk.

Cisco Unified IP Phone 2004 (registered with Unified CM1) calls Cisco Unified IP Phone 2005 (registered with Unified CM1) and makes an attended transfer to SIP Proxy Phone 3002 (registered with SIP Proxy)

Configuration:

Node = Unified CM1, IP = 10.89.78.195

Node = SIP Proxy, IP = 10.89.81.82

Phone = A, Line = 2004, IP = 10.8.28.103, Model = SCCP

Phone = B, Line = 2005, IP = 10.8.28.104, Model = SCCP

Phone = C, Line = 30003, IP = 10.8.28.119, Model = SIP TNP - 7960 SIP

SIP Trunk between Unified CM1 & SIP Proxy has route pattern 4.XXXXX

Scenario:

Phone A DN 2004 calls Phone B DN 2005

Phone B DN 2005 answers

Phone A DN 2004 presses transfer softkey and dials Phone C DN 4.30003

Phone C DN 30003 is ringing

Phone C DN 30003 answers

Phone A DN 2004 presses Transfer softkey to complete the transfer

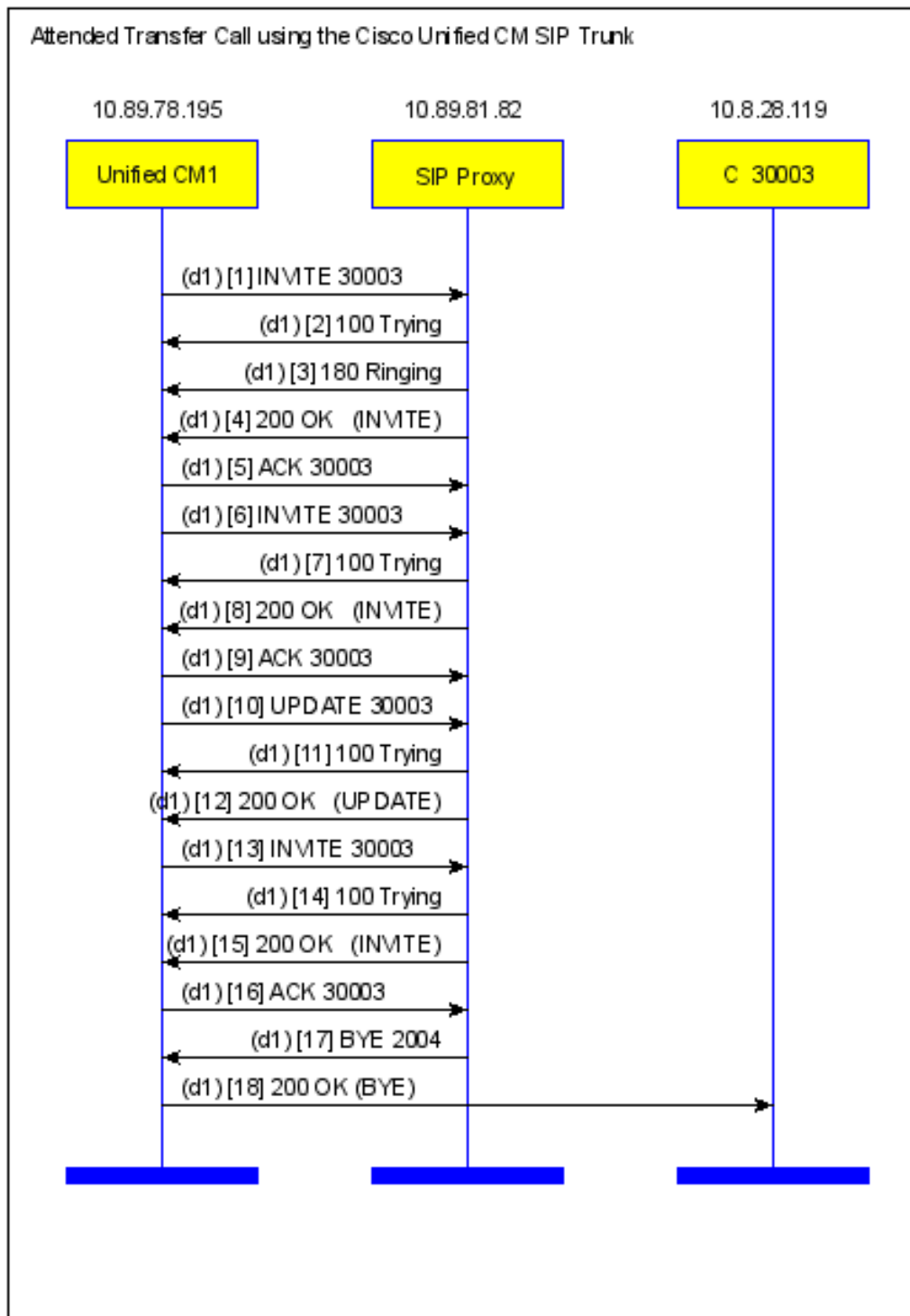
Phone B DN 2005 and Phone C DN 30003 are connected

Phone B DN 2005 goes onHook

Phone C DN 30003 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:30003@10.89.81.82:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK212c4cb4a6
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>
 Date: Wed, 10 Nov 2010 18:56:39 GMT
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1049236224-0000065536-0000000005-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2004@10.89.78.195>
 Remote-Party-ID: <sip:2004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK212c4cb4a6
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>
 CSeq: 101 INVITE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK212c4cb4a6
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK212c4cb4a6
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces,join,norefersub
 Content-Length: 274
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 27023 0 IN IP4 10.8.28.119
 s=SIP Call
 t=0 0
 m=audio 20750 RTP/AVP 0 8 18 101
 c=IN IP4 10.8.28.119
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[5] ACK sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK2214552f84
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Date: Wed, 10 Nov 2010 18:56:39 GMT
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.103
 t=0 0
 m=audio 22898 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[6] INVITE sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK234806e497
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Date: Wed, 10 Nov 2010 18:56:46 GMT
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2004@10.89.78.195>
 Remote-Party-ID: <sip:2004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 22898 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[7] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK234806e497
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 CSeq: 102 INVITE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[8] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK234806e497
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 CSeq: 102 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>

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Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, norefersub
 Content-Length: 203
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 27023 1 IN IP4 10.8.28.119
 s=SIP Call
 t=0 0
 m=audio 20750 RTP/AVP 0 101
 c=IN IP4 10.8.28.119
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=inactive

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] ACK sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK247283668d
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Date: Wed, 10 Nov 2010 18:56:46 GMT
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] UPDATE sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK25237cf42d
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Date: Wed, 10 Nov 2010 18:56:46 GMT
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Supported: timer, resource-priority, replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2005@10.89.78.195>
 Remote-Party-ID: <sip:2005@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] SIP/2.0 100 Trying
 Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK25237cf42d
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 CSeq: 103 UPDATE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] SIP/2.0 200 OK
 Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK25237cf42d
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 CSeq: 103 UPDATE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] INVITE sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK26600239fa
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Date: Wed, 10 Nov 2010 18:56:46 GMT
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195

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Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2005@10.89.78.195>
 Remote-Party-ID: <sip:2005@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK26600239fa
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 CSeq: 104 INVITE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK26600239fa
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 CSeq: 104 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces,join,norefersub
 Content-Length: 274
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 27023 2 IN IP4 10.8.28.119
 s=SIP Call
 t=0 0
 m=audio 20750 RTP/AVP 0 8 18 101
 c=IN IP4 10.8.28.119
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] ACK sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK277b86ef5f
 From: <sip:2004@10.89.78.195>;tag=78~e811c00a-4a66-4296-a800-0718da03b731-23818875
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a
 Date: Wed, 10 Nov 2010 18:56:46 GMT
 Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Max-Forwards: 70
 CSeq: 104 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 24500 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

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[diagram] Call-ID: [prev][next]

[17] BYE sip:2004@10.89.78.195:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.81.82:5060;branch=33e3cc30-917c69d4-a148d5e3-700bf09f-1

Via: SIP/2.0/UDP 10.8.28.119:5060;received=10.8.28.119;branch=z9hG4bK3d1957de

From: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a

To: <sip:2004@10.89.78.195>;tag=78-e811c00a-4a66-4296-a800-0718da03b731-23818875

Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195

Max-Forwards: 69

CSeq: 101 BYE

User-Agent: Cisco-CP7960G/8.0

Content-Length: 0

[diagram] Call-ID: [prev][next]

[18] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.81.82:5060;branch=33e3cc30-917c69d4-a148d5e3-700bf09f-1,SIP/2.0/UDP

10.8.28.119:5060;received=10.8.28.119;branch=z9hG4bK3d1957de

From: <sip:30003@10.89.81.82>;tag=003094c2dce6006c65c89552-55fc199a

To: <sip:2004@10.89.78.195>;tag=78-e811c00a-4a66-4296-a800-0718da03b731-23818875

Date: Wed, 10 Nov 2010 18:57:03 GMT

Call-ID: 3e8a1300-cda1eae7-8-c34e590a@10.89.78.195

CSeq: 101 BYE

Content-Length: 0

CISCO CONFIDENTIAL**4.4 Early Attended Transfer To SIP Proxy via Cisco Unified CM SIP Trunk**

Title: Early Attended Transfer To SIP Proxy via Cisco Unified CM SIP Trunk

Description:

The following basic call flow illustrates the SIP messaging that takes place between Cisco Unified IP SCCP Phones and a SIP Proxy via a SIP trunk.

Cisco Unified IP Phone 2004 (registered with Unified CM1) calls Cisco Unified IP Phone 2005 (registered with Unified CM1) and makes an early attended transfer to SIP Proxy Phone 30003 (registered with SIP Proxy)

Configuration:

Node = Unified CM1, IP = 10.89.78.195

Node = SIP Proxy, IP = 10.89.81.82

Phone = A, Line = 2004, IP = 10.8.28.103, Model = SCCP

Phone = B, Line = 2005, IP = 10.8.28.104, Model = SCCP

Phone = C, Line = 30003, IP = 10.8.28.119, Model = SIP 7960

SIP Trunk between Unified CM1 & SIP Proxy has route pattern 4.XXXX

Scenario:

Phone A DN 2004 calls Phone B DN 2005

Phone B DN 2005 answers

Phone A DN 2004 presses transfer softkey and dials Phone C DN 430003

Phone C DN 30003 is ringing

Phone A DN 2004 presses Transfer softkey to complete the transfer

Phone B DN 2005 hears Phone C DN 30003 ringing

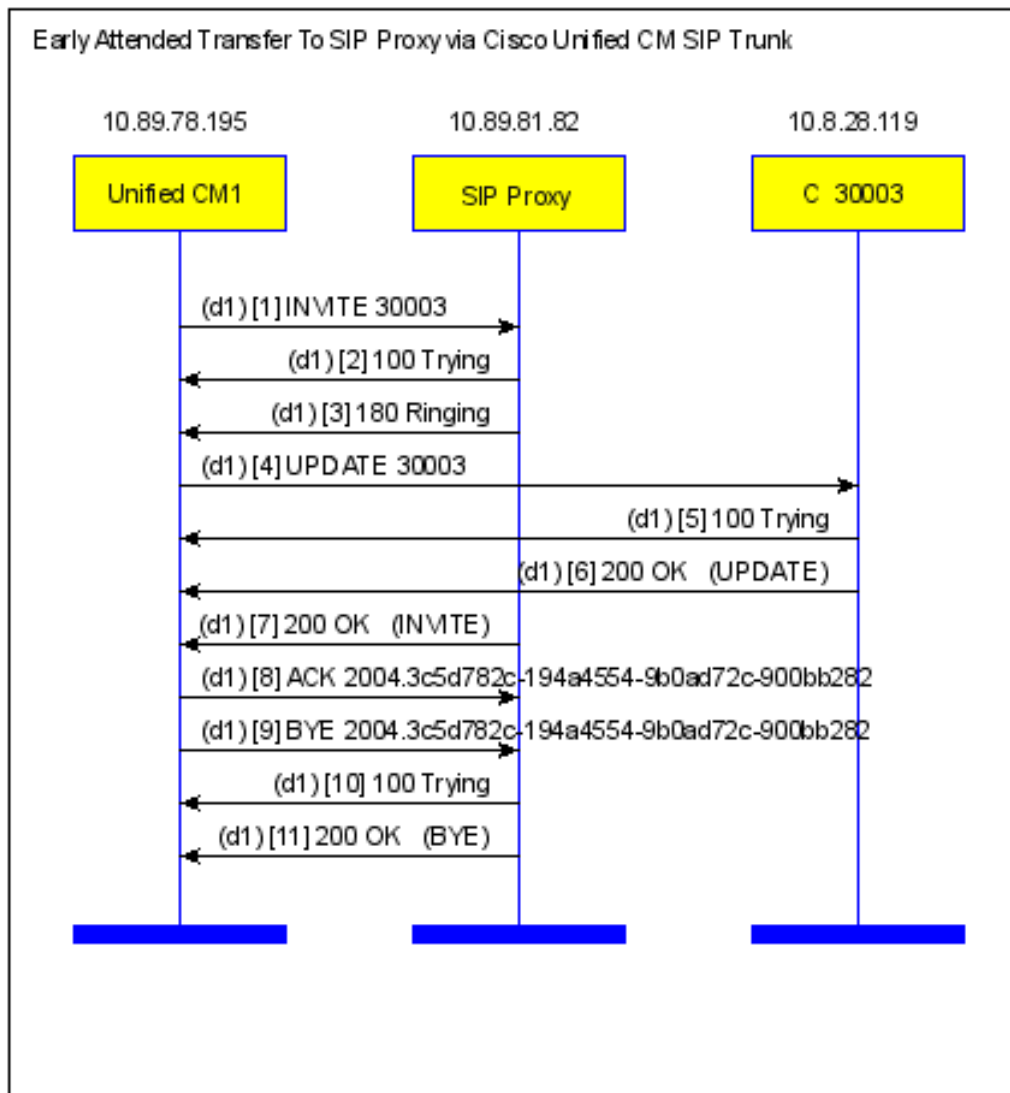
Phone C DN 30003 answers

Phone B DN 2005 and Phone C DN 30003 are connected

Phone B DN 2005 goes onHook

Phone C DN 30003 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:30003@10.89.81.82:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK282882c03
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
 To: <sip:30003@10.89.81.82>
 Date: Wed, 10 Nov 2010 19:03:09 GMT
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0654268928-0000065536-0000000006-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2004@10.89.78.195>
 Remote-Party-ID: <sip:2004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK282882c03
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
 To: <sip:30003@10.89.81.82>
 CSeq: 101 INVITE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK282882c03
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.89.81.82:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] UPDATE sip:30003@10.8.28.119:5060;transport=udp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK2922dda90f
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
 Date: Wed, 10 Nov 2010 19:03:09 GMT
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2005@10.89.78.195>
 Remote-Party-ID: <sip:2005@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2004@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK2922dda90f
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
 CSeq: 102 UPDATE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[6] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK2922dda90f
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880

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To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 CSeq: 102 UPDATE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:30003@10.8.28.119:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK282882c03
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:30003@10.8.28.119:5060;transport=udp>
 Record-Route: <sip:2004.3c5d782c-194a4554-9b0ad72c-900bb282@10.89.78.195:5060;maddr=10.89.81.82;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Remote-Party-ID: "sip1" <sip:30003@10.89.81.82>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, norefersub
 Content-Length: 274
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 17779 0 IN IP4 10.8.28.119
 s=SIP Call
 t=0 0
 m=audio 19628 RTP/AVP 0 8 18 101
 c=IN IP4 10.8.28.119
 a=rtptime:0 PCMU/8000
 a=rtptime:8 PCMA/8000
 a=rtptime:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtptime:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] ACK sip:2004.3c5d782c-194a4554-9b0ad72c-900bb282@10.89.78.195:5060;maddr=10.89.81.82;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK2a2ce97b64
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
 Date: Wed, 10 Nov 2010 19:03:09 GMT
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 31046 RTP/AVP 0 101
 a=rtptime:0 PCMU/8000
 a=ptime:20
 a=rtptime:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] BYE sip:2004.3c5d782c-194a4554-9b0ad72c-900bb282@10.89.78.195:5060;maddr=10.89.81.82;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK2b7e787dec
 From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
 To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
 Date: Wed, 10 Nov 2010 19:03:09 GMT
 Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Route: <sip:30003@10.8.28.119:5060;transport=udp>
 P-Asserted-Identity: <sip:2004@10.89.78.195>
 CSeq: 103 BYE

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK2b7e787dec
Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
CSeq: 103 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.78.195:5060;received=10.89.78.195;branch=z9hG4bK2b7e787dec
From: <sip:2004@10.89.78.195>;tag=87~e811c00a-4a66-4296-a800-0718da03b731-23818880
To: <sip:30003@10.89.81.82>;tag=003094c2dce6006d1afc1569-5d4783ce
Call-ID: 26ff5a00-cda1ec6d-9-c34e590a@10.89.78.195
CSeq: 103 BYE
Server: Cisco-CP7960G/8.0
Content-Length: 0

CISCO CONFIDENTIAL**5. Update****5.1 Early Transfer Call to SIP Gateway No PRACK via Cisco Unified CM SIP Trunk**

Title: Early Transfer Call to SIP Gateway No PRACK via Cisco Unified CM SIP Trunk

Description:

The following call flow illustrates the SIP messaging that takes place between Cisco Unified CM SCCP phones hosted by a Cisco Unified CM, and a SIP GW via a Cisco Unified CM SIP Trunk

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Gateway, IP = 10.18.1.28

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 1003, IP = 10.13.5.215, Model = SCCP

Phone = C, Line = 40631001, Model = FXPS

SIP Trunk between Unified CM1 & Gateway has

a) route pattern 3.XXXXXXXX

Scenario:

Cisco Unified IP SCCP Phone A DN 1001 calls Cisco Unified IP SCCP Phone B DN 1003
Phone B DN 1003 Answers

Phone B DN 1003 presses transfer softkey and calls Phone C DN 340631001 which is a
SIP GW phone

Phone C DN 40631001 is ringing

Phone B DN 1003 presses Transfer softkey to complete the transfer

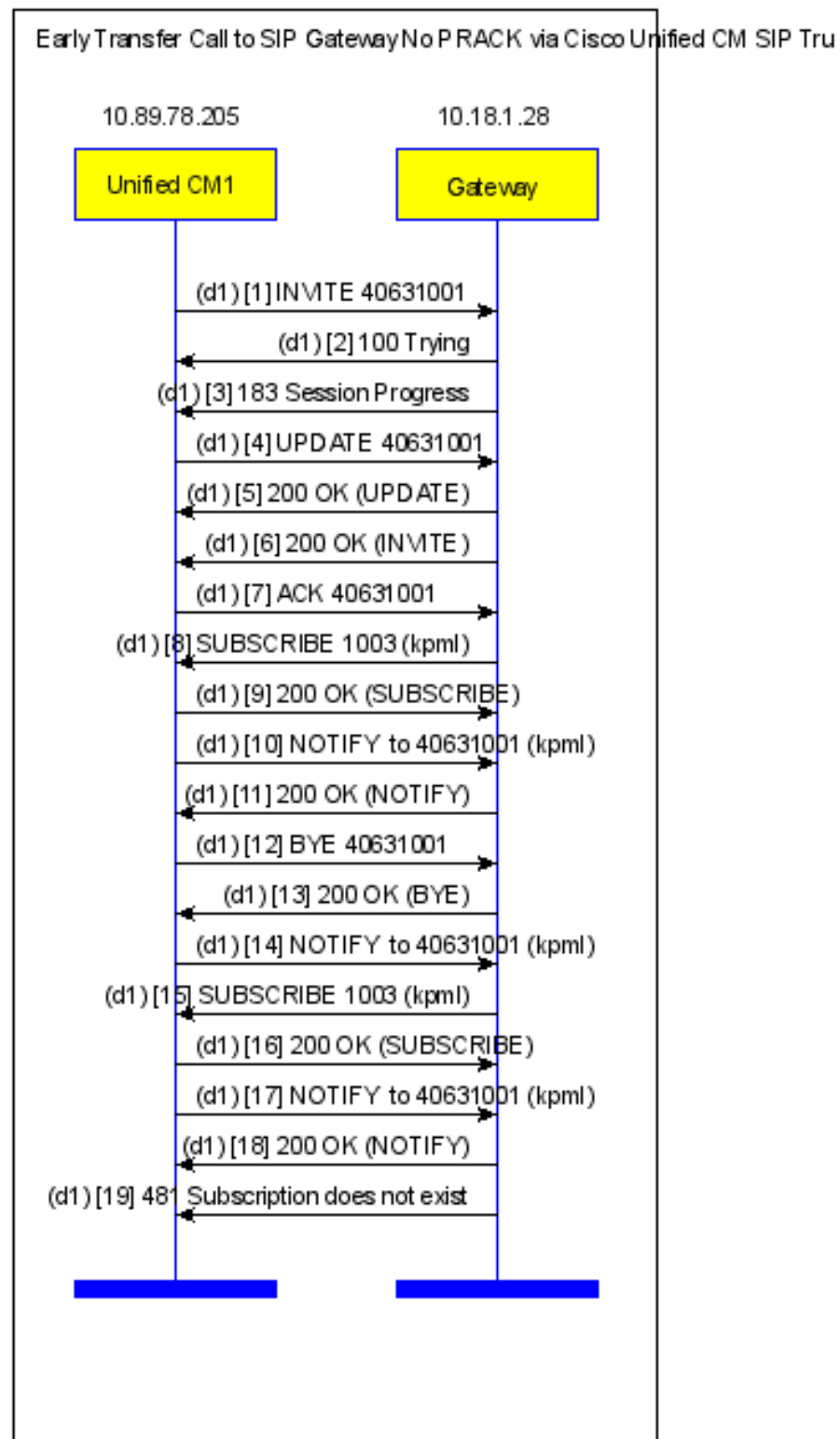
Phone C DN 40631001 answers

Phone A DN 1001 and Phone C DN 40631001 are connected

Phone C DN 1001 ends the call

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:40631001@10.18.1.28:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8f4fef6e83
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>
 Date: Wed, 17 Nov 2010 22:43:26 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0366329984-0000065536-0000000073-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8f4fef6e83
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>
 Date: Wed, 11 Jun 2008 00:00:21 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow-Events: telephone-event
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8f4fef6e83
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Date: Wed, 11 Jun 2008 00:00:21 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:40631001@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:40631001@10.18.1.28:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 385

v=0
 o=CiscoSystemsSIP-GW-UserAgent 7584 5087 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 18012 RTP/AVP 18 0 8 4 96 3 19
 c=IN IP4 10.18.1.28
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:4 G723/8000
 a=fmtp:4 bitrate=6.3;annexa=no
 a=rtpmap:96 G726-32/8000
 a=rtpmap:3 GSM/8000
 a=rtpmap:19 CN/8000

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] UPDATE sip:40631001@10.18.1.28:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK903d5697a7
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Date: Wed, 17 Nov 2010 22:43:26 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70

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Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK903d5697a7
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Date: Wed, 11 Jun 2008 00:00:22 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 102 UPDATE
 Allow-Events: telephone-event
 Contact: <sip:40631001@10.18.1.28:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8f4fef6e83
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Date: Wed, 11 Jun 2008 00:00:22 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:40631001@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:40631001@10.18.1.28:5060;transport=tcp>
 Supported: replaces
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 385

v=0
 o=CiscoSystemsSIP-GW-UserAgent 7584 5087 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 18012 RTP/AVP 18 0 8 4 96 3 19
 c=IN IP4 10.18.1.28
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:4 G723/8000
 a=fmtp:4 bitrate=6.3;annexa=no
 a=rtpmap:96 G726-32/8000
 a=rtpmap:3 GSM/8000
 a=rtpmap:19 CN/8000

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] ACK sip:40631001@10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK911fa4d6ec
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Date: Wed, 17 Nov 2010 22:43:26 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 155

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 28696 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[8] SUBSCRIBE sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bKCD2048
 From: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 To: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 CSeq: 101 SUBSCRIBE
 Max-Forwards: 70
 Date: Wed, 11 Jun 2008 00:01:21 GMT
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Event: kpml
 Expires: 7200
 Contact: <sip:10.18.1.28:5060;transport=tcp>
 Content-Type: application/kpml-request+xml
 Content-Length: 327

```
<?xml version="1.0" encoding="UTF-8"?><kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-
request kpml-request.xsd" version="1.0"><pattern persist="persist"><regex
tag="dtmf">[x*#ABCD]</regex></pattern></kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[9] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bKCD2048
 From: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 To: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 Date: Wed, 17 Nov 2010 22:44:27 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 CSeq: 101 SUBSCRIBE
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[10] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9238c65e5f
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 22:44:27 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[11] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9238c65e5f
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Date: Wed, 11 Jun 2008 00:01:21 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[12] BYE sip:40631001@10.18.1.28:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9353abf6fe
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Date: Wed, 17 Nov 2010 22:43:26 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[13] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9353abf6fe
 From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
 To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
 Date: Wed, 11 Jun 2008 00:01:30 GMT
 Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x

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CSeq: 104 BYE
Reason: Q.850;cause=16
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK946bd6e393
From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
CSeq: 105 NOTIFY
Max-Forwards: 70
Date: Wed, 17 Nov 2010 22:44:36 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: terminated
Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
P-Asserted-Identity: <sip:1003@10.89.78.205>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SUBSCRIBE sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bKCE1C2C
From: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
To: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Max-Forwards: 70
Date: Wed, 11 Jun 2008 00:01:30 GMT
User-Agent: Cisco-SIPGateway/IOS-12.x
Event: kpml
Expires: 0
Contact: <sip:10.18.1.28:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bKCE1C2C
From: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
To: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
Date: Wed, 17 Nov 2010 22:44:36 GMT
Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
Expires: 0
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK957f992288
From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
CSeq: 106 NOTIFY
Max-Forwards: 70
Date: Wed, 17 Nov 2010 22:44:36 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: terminated;reason=timeout
Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
P-Asserted-Identity: <sip:1003@10.89.78.205>
Content-Type: application/kpml-response+xml
Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK946bd6e393
From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687
To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864
Date: Wed, 11 Jun 2008 00:01:30 GMT
Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205
CSeq: 105 NOTIFY
Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[19] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK957f992288

From: <sip:1003@10.89.78.205>;tag=94~1ebcd687-60ae-450a-823c-0469b2740097-25971687

To: <sip:40631001@10.18.1.28>;tag=5C006D8-1864

Date: Wed, 11 Jun 2008 00:01:30 GMT

Call-ID: 15d5c080-ce415a8e-49-cd4e590a@10.89.78.205

CSeq: 106 NOTIFY

Content-Length: 0

CISCO CONFIDENTIAL**5.2 Early Transfer Call to SIP Gateway with PRACK via Cisco Unified CM SIP Trunk**

Title: Early Transfer Call to SIP Gateway with PRACK via Cisco Unified CM SIP Trunk

Description:

The following call flow illustrates the SIP messaging that takes place between Cisco Unified CM SCCP phones hosted by a Cisco Unified CM, and a SIP GW via a Cisco Unified CM SIP Trunk

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Gateway, IP = 10.18.1.28

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = A, Line = 1003, IP = 10.13.5.215, Model = SCCP

Phone = C, Line = 88991000, Model = FXPS

SIP Trunk between Unified CM1 & Gateway has

a) route pattern 3.XXXXXXXX

Scenario:

Cisco Unified IP SCCP Phone A DN 1001 calls Cisco Unified IP SCCP Phone B DN 1003

Phone B DN 1003 Answers

Phone B DN 1003 presses transfer softkey and calls Phone C DN 88991000 which is a SIP GW phone

Phone C DN 88991000 is ringing

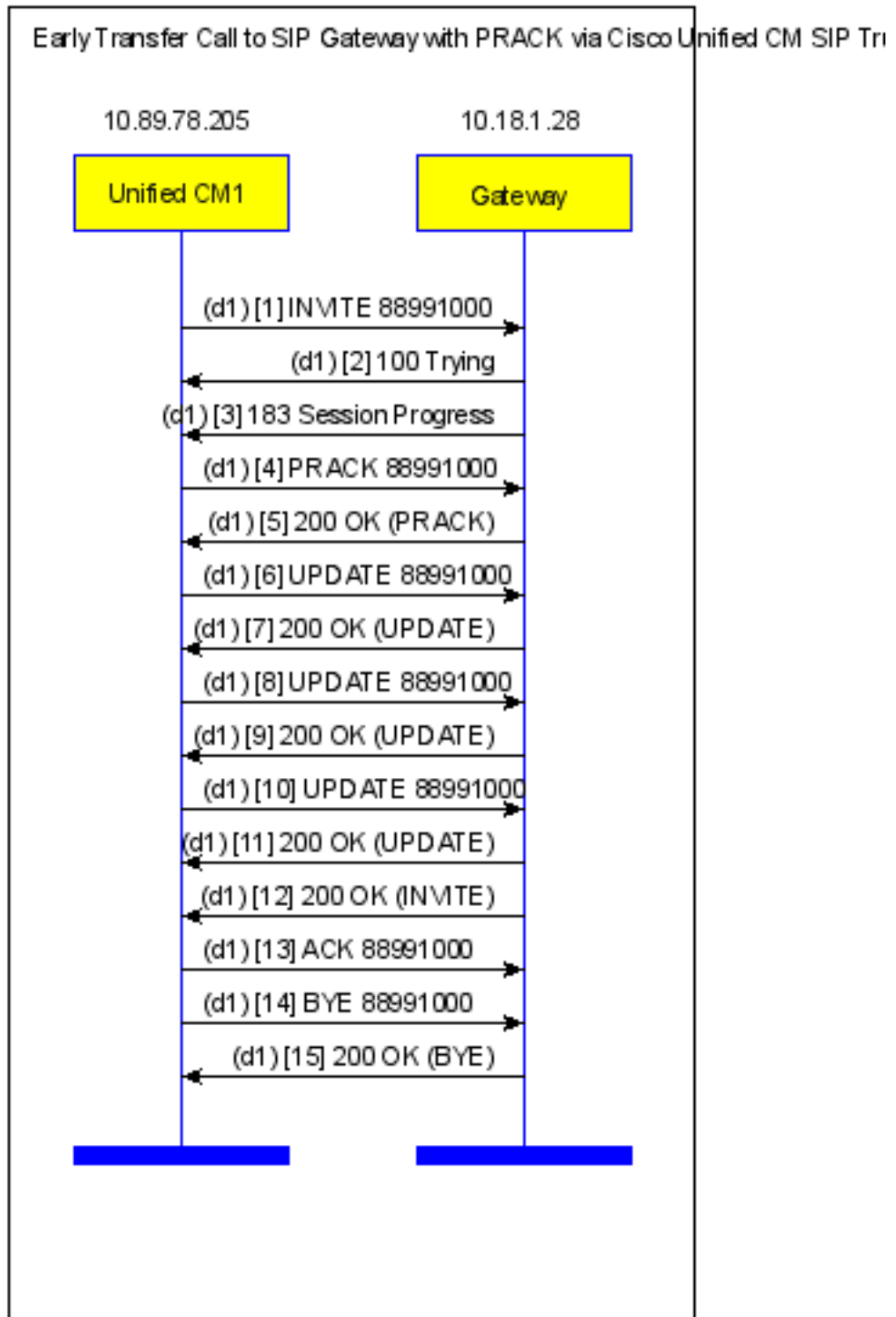
Phone B DN 1003 presses Transfer softkey to complete the transfer

Phone C DN 88991000 answers

Phone A DN 1001 and Phone C DN 88991000 are connected

Phone C DN 1001 ends the call

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:88991000@10.18.1.28:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c753f655e5
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>
 Date: Mon, 22 Nov 2010 16:07:23 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Supported: 100rel,timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2517398784-0000065536-0000000033-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c753f655e5
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>
 Date: Sun, 15 Jun 2008 17:24:14 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow-Events: telephone-event
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c753f655e5
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Sun, 15 Jun 2008 17:24:14 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Require: 100rel
 RSeq: 1503
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 385

v=0
 o=CiscoSystemsSIP-GW-UserAgent 2426 6274 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 16862 RTP/AVP 18 0 8 4 96 3 19
 c=IN IP4 10.18.1.28
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:4 G723/8000
 a=fmtp:4 bitrate=6.3;annexa=no
 a=rtpmap:96 G726-32/8000
 a=rtpmap:3 GSM/8000
 a=rtpmap:19 CN/8000

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] PRACK sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c8378ea913
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Mon, 22 Nov 2010 16:07:23 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205

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CSeq: 102 PRACK
 RACK: 1503 101 INVITE
 Allow-Events: presence, kpml
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 155

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.215
 t=0 0
 m=audio 23142 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c8378ea913
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Sun, 15 Jun 2008 17:24:14 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 102 PRACK
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] UPDATE sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c968e70051
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Mon, 22 Nov 2010 16:07:23 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: 100rel,timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 163

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 23142 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c968e70051
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Sun, 15 Jun 2008 17:24:18 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 103 UPDATE
 Allow-Events: kpml, telephone-event
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 206

v=0
 o=CiscoSystemsSIP-GW-UserAgent 2426 6274 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 16862 RTP/AVP 0
 c=IN IP4 10.18.1.28
 a=inactive
 a=rtpmap:0 PCMU/8000

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a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] UPDATE sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1caffbcfbdb
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Mon, 22 Nov 2010 16:07:23 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: 100rel,timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1caffbcfbdb
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Sun, 15 Jun 2008 17:24:18 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 104 UPDATE
 Allow-Events: kpml, telephone-event
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] UPDATE sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1cb2655e184
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Mon, 22 Nov 2010 16:07:23 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: 100rel,timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 105 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 17908 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1cb2655e184
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Sun, 15 Jun 2008 17:24:18 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 105 UPDATE

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Allow-Events: kpml, telephone-event
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 238

v=0
 o=CiscoSystemsSIP-GW-UserAgent 2426 6275 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 16862 RTP/AVP 0 101
 c=IN IP4 10.18.1.28
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-16

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c753f655e5
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Sun, 15 Jun 2008 17:24:18 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: kpml, telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Supported: replaces
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 238

v=0
 o=CiscoSystemsSIP-GW-UserAgent 2426 6275 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 16862 RTP/AVP 0 101
 c=IN IP4 10.18.1.28
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-16

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] ACK sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1cc1285d979
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
 Date: Mon, 22 Nov 2010 16:07:23 GMT
 Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 17908 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] BYE sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1cd30a6e89d
 From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
 To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F

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Date: Mon, 22 Nov 2010 16:07:23 GMT
Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1003@10.89.78.205>
CSeq: 106 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1cd30a6e89d
From: <sip:1003@10.89.78.205>;tag=356~1ebcd687-60ae-450a-823c-0469b2740097-26456290
To: <sip:88991000@10.18.1.28>;tag=1E152B58-169F
Date: Sun, 15 Jun 2008 17:26:12 GMT
Call-ID: 960c7500-cea1953b-144-cd4e590a@10.89.78.205
Server: Cisco-SIPGateway/IOS-12.x
CSeq: 106 BYE
Reason: Q.850;cause=16
Content-Length: 0

CISCO CONFIDENTIAL**6. TLS****6.1 TLS Rejection with X509 Subject Name Mismatch**

Title: TLS Rejection with X509 Subject Name Mismatch

Description:

Incoming TLS is from a trusted peer but the X509 subject name or the cipher string from the peer's certificate doesn't match the values from the SIP trunk security profile on Cisco Unified CM.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has

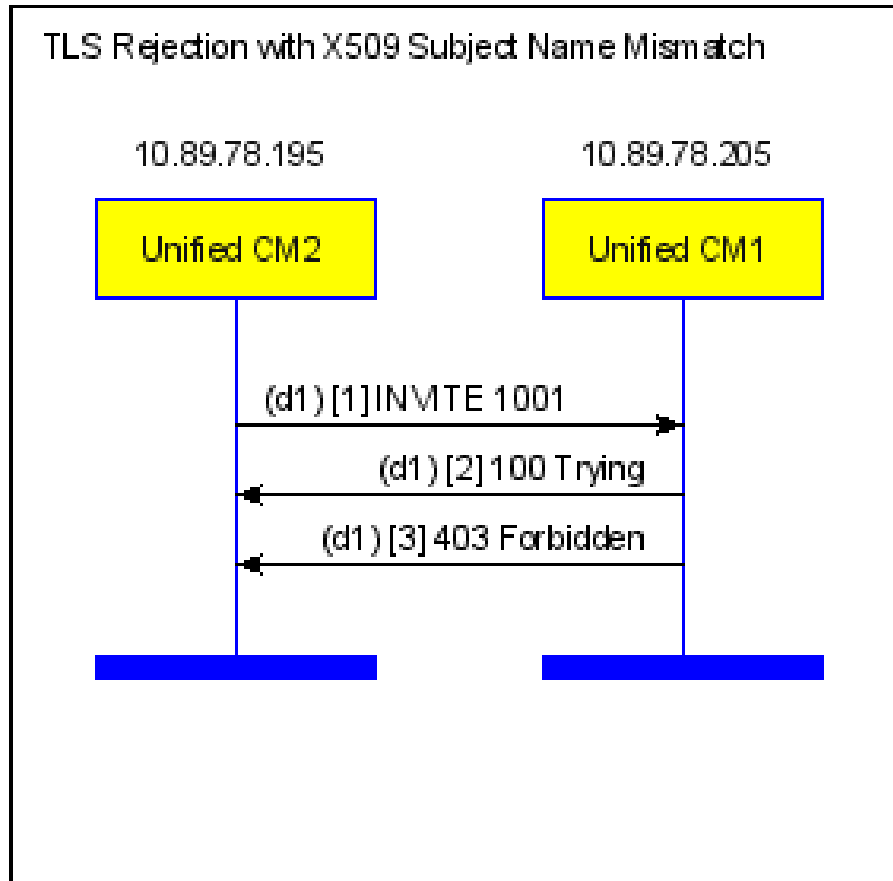
- a) route pattern 1.XXXX
- b) Has destination port configured to be 5061
- c) Has "SIP Trunk Security Profile" point to the "TLS Sip Trunk Secure Profile", which is already configured to have correct X509 Subject Name.
- d) "TLS Sip Trunk Security Profile" has a different X509 Subject Name.

Scenario:

Phone B DN 2002 calls Phone A DN 1001 over the SIP Trunk by dialing 11001

Call gets rejected by Unified CM1 because of mismatch in X509 subject name in Sip Trunk Security Profile.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5061 SIP/2.0**

Via: SIP/2.0/TLS 10.89.78.195:5061;branch=z9hG4bK6a73c68200

From: <sip:2002@10.89.78.195>;tag=980~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316659

To: <sip:1001@10.89.78.205>

Date: Fri, 29 Oct 2010 23:02:40 GMT

Call-ID: 9fd2ed80-ccb15290-e-c34e590a@10.89.78.195

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:10.89.78.195:5061>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 2681400704-0000065536-0000000003-3276691722

Session-Expires: 1800

P-Asserted-Identity: <sip:2002@10.89.78.195>

Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off

Contact: <sip:2002@10.89.78.195:5061;transport=tls>

Max-Forwards: 70

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TLS 10.89.78.195:5061;branch=z9hG4bK6a73c68200

From: <sip:2002@10.89.78.195>;tag=980~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316659

To: <sip:1001@10.89.78.205>

Date: Fri, 29 Oct 2010 23:02:40 GMT

Call-ID: 9fd2ed80-ccb15290-e-c34e590a@10.89.78.195

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 403 Forbidden**

Via: SIP/2.0/TLS 10.89.78.195:5061;branch=z9hG4bK6a73c68200

From: <sip:2002@10.89.78.195>;tag=980~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316659

To: <sip:1001@10.89.78.205>;tag=1654222556

Date: Fri, 29 Oct 2010 23:02:40 GMT

Call-ID: 9fd2ed80-ccb15290-e-c34e590a@10.89.78.195

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

CISCO CONFIDENTIAL**6.2 TLS Basic Incoming Call**

Title: TLS Basic Incoming Call

Description:

The following basic call flow illustrates the SIP messaging when the SIP trunk is acting as a UAS.

Unified CM1 received an INVITE via the SIP Trunk.

Incoming TLS is from a trusted peer, where the X509 subject name from the peer's certificate matches

the values from the SIP trunk security profile on Cisco Unified CM1.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has

- a) route pattern 1.XXXX
- b) Has destination port configured to be 5061
- c) Has "SIP Trunk Security Profile" point to the "TLS Sip Trunk Secure Profile", which is already configured to have correct X509 Subject Name.

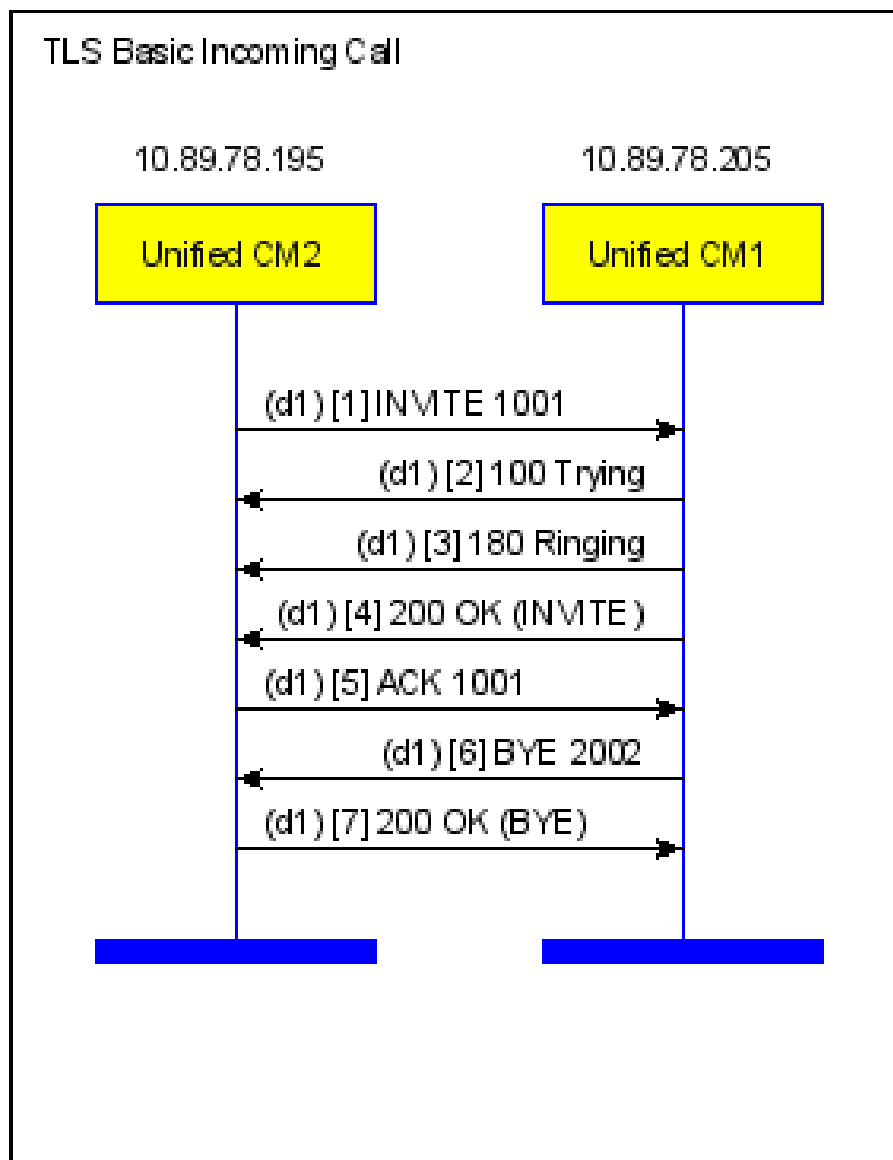
Scenario:

Phone B DN 2002 calls Phone A DN 1001 over the SIP Trunk by dialing 11001

Phone A DN 1001 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5061 SIP/2.0**

Via: SIP/2.0/TLS 10.89.78.195:5061;branch=z9hG4bK6843b7a862
 From: <sip:2002@10.89.78.195>;tag=976~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316657
 To: <sip:1001@10.89.78.205>
 Date: Fri, 29 Oct 2010 22:58:31 GMT
 Call-ID: b688b00-ccb15197-d-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5061>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0191400704-00000065536-0000000002-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5061;transport=tls>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TLS 10.89.78.195:5061;branch=z9hG4bK6843b7a862
 From: <sip:2002@10.89.78.195>;tag=976~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316657
 To: <sip:1001@10.89.78.205>
 Date: Fri, 29 Oct 2010 22:58:31 GMT
 Call-ID: b688b00-ccb15197-d-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TLS 10.89.78.195:5061;branch=z9hG4bK6843b7a862
 From: <sip:2002@10.89.78.195>;tag=976~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316657
 To: <sip:1001@10.89.78.205>;tag=44-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309428
 Date: Fri, 29 Oct 2010 22:58:31 GMT
 Call-ID: b688b00-ccb15197-d-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5061;transport=tls>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TLS 10.89.78.195:5061;branch=z9hG4bK6843b7a862
 From: <sip:2002@10.89.78.195>;tag=976~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316657
 To: <sip:1001@10.89.78.205>;tag=44-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309428
 Date: Fri, 29 Oct 2010 22:58:31 GMT
 Call-ID: b688b00-ccb15197-d-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5061;transport=tls>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 24470 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[5] ACK sip:1001@10.89.78.205:5061;transport=tls SIP/2.0
 Via: SIP/2.0/TLS 10.89.78.195:5061;branch=z9hG4bK69f579679
 From: <sip:2002@10.89.78.195>;tag=976~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316657
 To: <sip:1001@10.89.78.205>;tag=44~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309428
 Date: Fri, 29 Oct 2010 22:58:31 GMT
 Call-ID: b688b00-ccb15197-d-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 18314 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[6] BYE sip:2002@10.89.78.195:5061;transport=tls SIP/2.0
 Via: SIP/2.0/TLS 10.89.78.205:5061;branch=z9hG4bK317557e41f
 From: <sip:1001@10.89.78.205>;tag=44~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309428
 To: <sip:2002@10.89.78.195>;tag=976~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316657
 Date: Fri, 29 Oct 2010 22:58:37 GMT
 Call-ID: b688b00-ccb15197-d-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 101 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[7] SIP/2.0 200 OK
 Via: SIP/2.0/TLS 10.89.78.205:5061;branch=z9hG4bK317557e41f
 From: <sip:1001@10.89.78.205>;tag=44~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309428
 To: <sip:2002@10.89.78.195>;tag=976~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316657
 Date: Fri, 29 Oct 2010 22:58:42 GMT
 Call-ID: b688b00-ccb15197-d-c34e590a@10.89.78.195
 CSeq: 101 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**7. T38****7.1 SIP Trunk Passes through T38 Fax Call between SIP Gateways**

Title: SIP Trunk Passes through T38 Fax Call between SIP Gateways

Description:

Cisco Unified CM can pass through T38 fax calls using SIP trunk. This call flow shows how to SIP trunks let a fax call pass the Unified CM between a SIP gateway, which is simulated by a sipp linux server.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Linux Server, IP = 10.89.77.5

Node = Linux Server, IP = 10.89.77.6

SIP Trunk between RemoteUA1 & Unified CM1 has route pattern 6.XXXX

SIP Trunk between Unified CM2 & RemoteUA2 has

a) route pattern 7.XXXX

b) SIP Profile has "Outgoing T.38 INVITE include audio mline" unchecked.

Fax = A, DN = 2020

Fax = B, DN = 9999

Scenario:

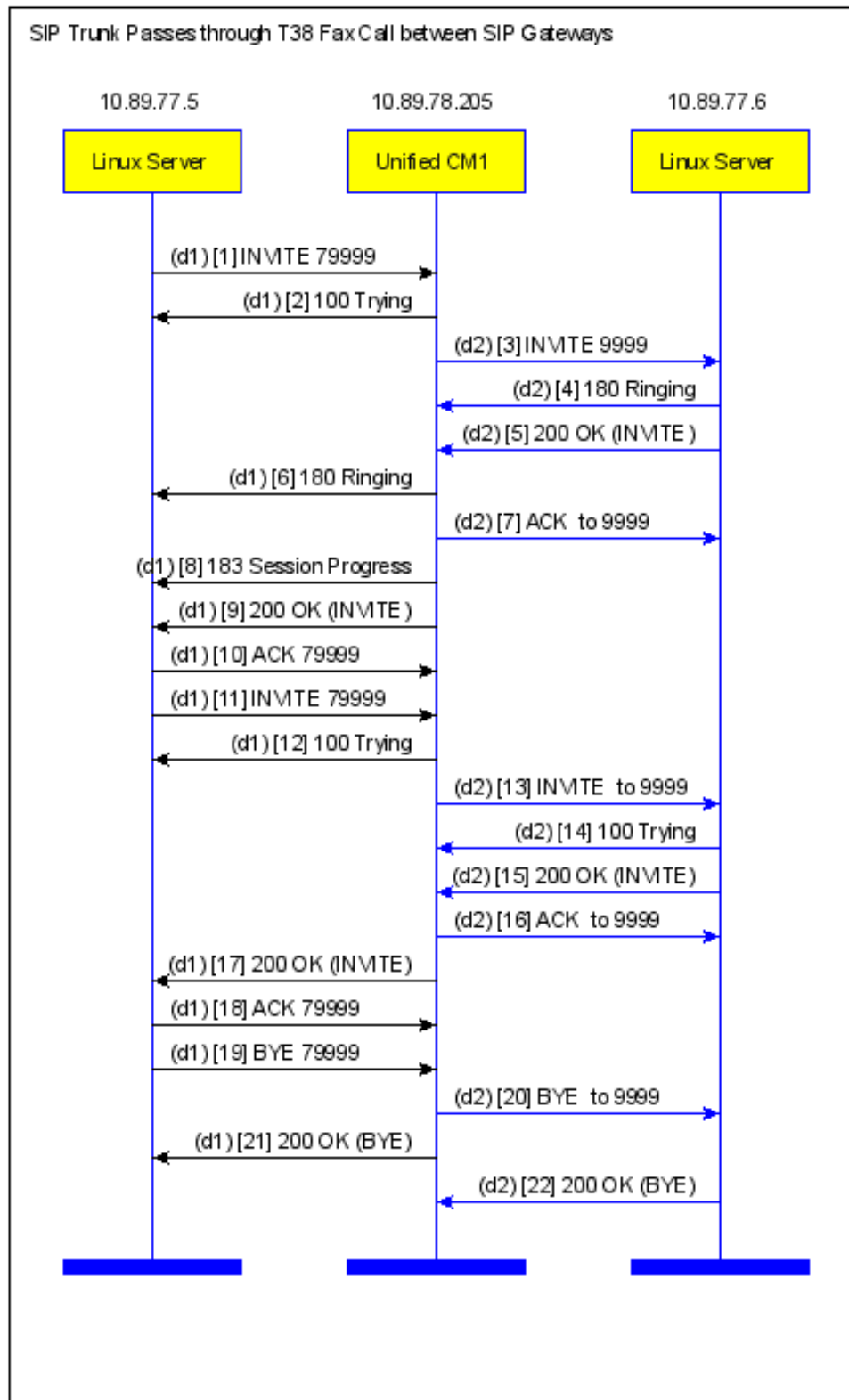
Fax A DN 2020 calls Fax B DN 9999 via SIP Trunk.

Fax B DN 9999 Answers

Fax A DN 2020 goes onHook

End of scenario

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[diagram] Call-ID:[prev][next]

[1] INVITE sip:79999@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.77.5:5060

From: 2020 <sip:2020@10.89.77.5:5060>;tag=1

To: sut <sip:79999@10.89.78.205:5060>

Call-ID: 1-27218@10.89.77.5

CSeq: 1 INVITE

Contact: sip:2020@10.89.77.5:5060

Max-Forwards: 70

Subject: Performance Test

Content-Type: application/sdp

Content-Length: 132

v=0

o=user1 53655765 2353687637 IN IP4 10.89.77.5

s=-

c=IN IP4 10.89.77.5

t=0 0

m=audio 10000 RTP/AVP 0

a=rtpmap:0 PCMU/8000

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 10.89.77.5:5060

From: 2020 <sip:2020@10.89.77.5:5060>;tag=1

To: sut <sip:79999@10.89.78.205:5060>

Date: Mon, 29 Nov 2010 16:56:23 GMT

Call-ID: 1-27218@10.89.77.5

CSeq: 1 INVITE

Allow-Events: presence

Content-Length: 0

[diagram] Call-ID:[prev][next]

[3] INVITE sip:9999@10.89.77.6:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKeb28c35ae5

From: "2020 " <sip:2020@10.89.78.205>;tag=125-1ebcd687-60ae-450a-823c-0469b2740097-28361012

To: <sip:9999@10.89.77.6>

Date: Mon, 29 Nov 2010 16:56:23 GMT

Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Cisco-Guid: 2538674944-0000065536-0000000067-3444463882

Session-Expires: 1800

P-Asserted-Identity: "2020 " <sip:2020@10.89.78.205>

Remote-Party-ID: "2020 " <sip:2020@10.89.78.205>;party=calling;screen=yes;privacy=off

Contact: <sip:2020@10.89.78.205:5060;transport=tcp>

Max-Forwards: 69

Content-Length: 0

[diagram] Call-ID:[prev][next]

[4] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKeb28c35ae5

From: "2020 " <sip:2020@10.89.78.205>;tag=125-1ebcd687-60ae-450a-823c-0469b2740097-28361012

To: <sip:9999@10.89.77.6>;tag=1

Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Contact: <sip:10.89.77.6:5060;transport=TCP>

Content-Length: 0

[diagram] Call-ID:[prev][next]

[5] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKeb28c35ae5

From: "2020 " <sip:2020@10.89.78.205>;tag=125-1ebcd687-60ae-450a-823c-0469b2740097-28361012

To: <sip:9999@10.89.77.6>;tag=1

Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Contact: <sip:10.89.77.6:5060;transport=TCP>

Content-Type: application/sdp

Content-Length: 132

v=0

o=user1 53655765 2353687637 IN IP4 10.89.77.6

s=-

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```
t=0 0
c=IN IP4 10.89.77.6
m=audio 10000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

```
Via: SIP/2.0/UDP 10.89.77.5:5060
From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
To: sut <sip:79999@10.89.78.205:5060>;tag=124~1ebcd687-60ae-450a-823c-0469b2740097-28361011
Date: Mon, 29 Nov 2010 16:56:23 GMT
Call-ID: 1-27218@10.89.77.5
CSeq: 1 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:9999@10.89.78.205>
Remote-Party-ID: <sip:9999@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:79999@10.89.78.205:5060>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] ACK sip:10.89.77.6:5060;transport=TCP SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKec52bfd144
From: "2020 " <sip:2020@10.89.78.205>;tag=125~1ebcd687-60ae-450a-823c-0469b2740097-28361012
To: <sip:9999@10.89.77.6>;tag=1
Date: Mon, 29 Nov 2010 16:56:23 GMT
Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 154
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.77.5
t=0 0
m=audio 10000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 183 Session Progress

```
Via: SIP/2.0/UDP 10.89.77.5:5060
From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
To: sut <sip:79999@10.89.78.205:5060>;tag=124~1ebcd687-60ae-450a-823c-0469b2740097-28361011
Date: Mon, 29 Nov 2010 16:56:23 GMT
Call-ID: 1-27218@10.89.77.5
CSeq: 1 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:9999@10.89.78.205>
Remote-Party-ID: <sip:9999@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:79999@10.89.78.205:5060>
Content-Type: application/sdp
Content-Length: 154
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.77.6
t=0 0
m=audio 10000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

```
Via: SIP/2.0/UDP 10.89.77.5:5060
From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
To: sut <sip:79999@10.89.78.205:5060>;tag=124~1ebcd687-60ae-450a-823c-0469b2740097-28361011
Date: Mon, 29 Nov 2010 16:56:23 GMT
Call-ID: 1-27218@10.89.77.5
CSeq: 1 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
```

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Allow-Events: presence
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:9999@10.89.78.205>
 Remote-Party-ID: <sip:9999@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:79999@10.89.78.205:5060>
 Content-Type: application/sdp
 Content-Length: 154

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.77.6
 t=0 0
 m=audio 10000 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:79999@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=124-1ebcd687-60ae-450a-823c-0469b2740097-28361011
 Call-ID: 1-27218@10.89.77.5
 CSeq: 1 ACK
 Contact: sip:2020@10.89.77.5:5060
 Max-Forwards: 70
 Subject: Performance Test
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INVITE sip:79999@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>
 Call-ID: 1-27218@10.89.77.5
 CSeq: 1 INVITE
 Contact: sip:2020@10.89.77.5:5060
 Max-Forwards: 70
 Subject: T.38 fax Test
 Content-Type: application/sdp
 Content-Length: 392

v=0
 o=user1 53655765 2353687637 IN IP4 10.89.77.5
 s=-
 c=IN IP4 10.89.77.5
 t=0 0
 m=audio 0 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 m=image 17678 udptl t38
 a=T38FaxVersion:0
 a=T38FaxMaxBitRate:14400
 a=T38FaxFillBitRemoval:0
 a=T38FaxTranscodingMMR:0
 a=T38FaxTranscodingJBIG:0
 a=T38FaxRateManagement:transferredTCF
 a=T38FaxUdpEC:t38UDPRedundancy
 a=T38FaxMaxBuffer:200
 a=T38FaxMaxDatagram:72

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=124-1ebcd687-60ae-450a-823c-0469b2740097-28361011
 Date: Mon, 29 Nov 2010 16:56:29 GMT
 Call-ID: 1-27218@10.89.77.5
 CSeq: 1 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] INVITE sip:10.89.77.6:5060;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKed221af6b8
 From: "2020 " <sip:2020@10.89.78.205>;tag=125-1ebcd687-60ae-450a-823c-0469b2740097-28361012
 To: <sip:9999@10.89.77.6>;tag=1
 Date: Mon, 29 Nov 2010 16:56:29 GMT
 Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205

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Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: "2020 " <sip:2020@10.89.78.205>
 Remote-Party-ID: "2020 " <sip:2020@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:2020@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 359

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.77.5
 t=0 0
 m=image 17678 udptl t38
 a=T38FaxVersion:0
 a=T38MaxBitRate:14400
 a=T38FaxFillBitRemoval:0
 a=T38FaxTranscodingMMR:0
 a=T38FaxTranscodingJBIG:0
 a=T38FaxRateManagement:transferredTCF
 a=T38FaxUdpEC:t38UDPRedundancy
 a=T38FaxMaxBuffer:200
 a=T38FaxMaxDatagram:72

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKed221af6b8
 From: "2020 " <sip:2020@10.89.78.205>;tag=125-1ebcd687-60ae-450a-823c-0469b2740097-28361012
 To: <sip:9999@10.89.77.6>;tag=1;tag=1
 Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Contact: <sip:10.89.77.6:5060;transport=TCP>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKed221af6b8
 From: "2020 " <sip:2020@10.89.78.205>;tag=125-1ebcd687-60ae-450a-823c-0469b2740097-28361012
 To: <sip:9999@10.89.77.6>;tag=1;tag=1
 Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Contact: <sip:10.89.77.6:5060;transport=TCP>
 Content-Type: application/sdp
 Content-Length: 138

v=0
 o=user1 53655765 2353687637 IN IP4 10.89.77.6
 s=SIP Call
 c=IN IP4 10.89.77.6
 t=0 0
 m=image 10000 udptl t38
 c=IN IP4 10.89.77.6

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] ACK sip:10.89.77.6:5060;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKee4607f63c
 From: "2020 " <sip:2020@10.89.78.205>;tag=125-1ebcd687-60ae-450a-823c-0469b2740097-28361012
 To: <sip:9999@10.89.77.6>;tag=1
 Date: Mon, 29 Nov 2010 16:56:29 GMT
 Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=124-1ebcd687-60ae-450a-823c-0469b2740097-28361011
 Date: Mon, 29 Nov 2010 16:56:29 GMT
 Call-ID: 1-27218@10.89.77.5

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CSeq: 1 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:9999@10.89.78.205>
 Remote-Party-ID: <sip:9999@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:79999@10.89.78.205:5060>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[18] ACK sip:79999@10.89.78.205:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=124~1ebcd687-60ae-450a-823c-0469b2740097-28361011
 Call-ID: 1-27218@10.89.77.5
 CSeq: 1 ACK
 Contact: sip:2020@10.89.77.5:5060
 Max-Forwards: 70
 Subject: T38 Fax Test
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[19] BYE sip:79999@10.89.78.205:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=124~1ebcd687-60ae-450a-823c-0469b2740097-28361011
 Call-ID: 1-27218@10.89.77.5
 CSeq: 2 BYE
 Contact: sip:2020@10.89.77.5:5060
 Max-Forwards: 70
 Subject: Performance Test
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[20] BYE sip:10.89.77.6:5060;transport=TCP SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKef35903baa
 From: "2020 " <sip:2020@10.89.78.205>;tag=125~1ebcd687-60ae-450a-823c-0469b2740097-28361012
 To: <sip:9999@10.89.77.6>;tag=1
 Date: Mon, 29 Nov 2010 16:56:29 GMT
 Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: "2020 " <sip:2020@10.89.78.205>
 CSeq: 103 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[21] SIP/2.0 200 OK
 Via: SIP/2.0/UDP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=124~1ebcd687-60ae-450a-823c-0469b2740097-28361011
 Date: Mon, 29 Nov 2010 16:56:34 GMT
 Call-ID: 1-27218@10.89.77.5
 CSeq: 2 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[22] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKef35903baa
 From: "2020 " <sip:2020@10.89.78.205>;tag=125~1ebcd687-60ae-450a-823c-0469b2740097-28361012
 To: <sip:9999@10.89.77.6>;tag=1;tag=1
 Call-ID: 97511b00-cf31db37-3f-cd4e590a@10.89.78.205
 CSeq: 103 BYE
 Contact: <sip:10.89.77.6:5060;transport=TCP>
 Content-Length: 0

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8. SipsUri

8.1 Incoming SIPS URI Request Redirected by Cisco Unified CM

Title: Incoming SIPS URI Request Redirected by Cisco Unified CM

Description:

SIPS URI is handled but not officially supported by Cisco Unified CM.

This scenario shows the CM behavior when the SIP URI Handling service parameter is set to "redirect".

Incoming SIP URI request is redirected to the same address but with SIP URI as directed by the SIPS URI service parameter.

Configuration:

Node = Unified CM1, IP = 10.10.199.250

Node = Gateway, IP = 10.10.197.25

Phone = A, Line = 4040, Model = FXPS

Phone = B, Line = 1002, IP = 10.10.199.238, Model = SIP TNP

SIP Trunk between Unified CM1 & Gateway

a) Has destination port configured to be 5061

b) Has "SIP Trunk Security Profile" point to the Gateway Sip Trunk Secure Profile, which is already configured to have correct X509 Subject Name.

In Call Manager Unified CM1, Service Parameter "SIPS_URI_HANDLING" is set to "Redirect".

Scenario:

Phone A DN 4040 calls Phone B DN 1002

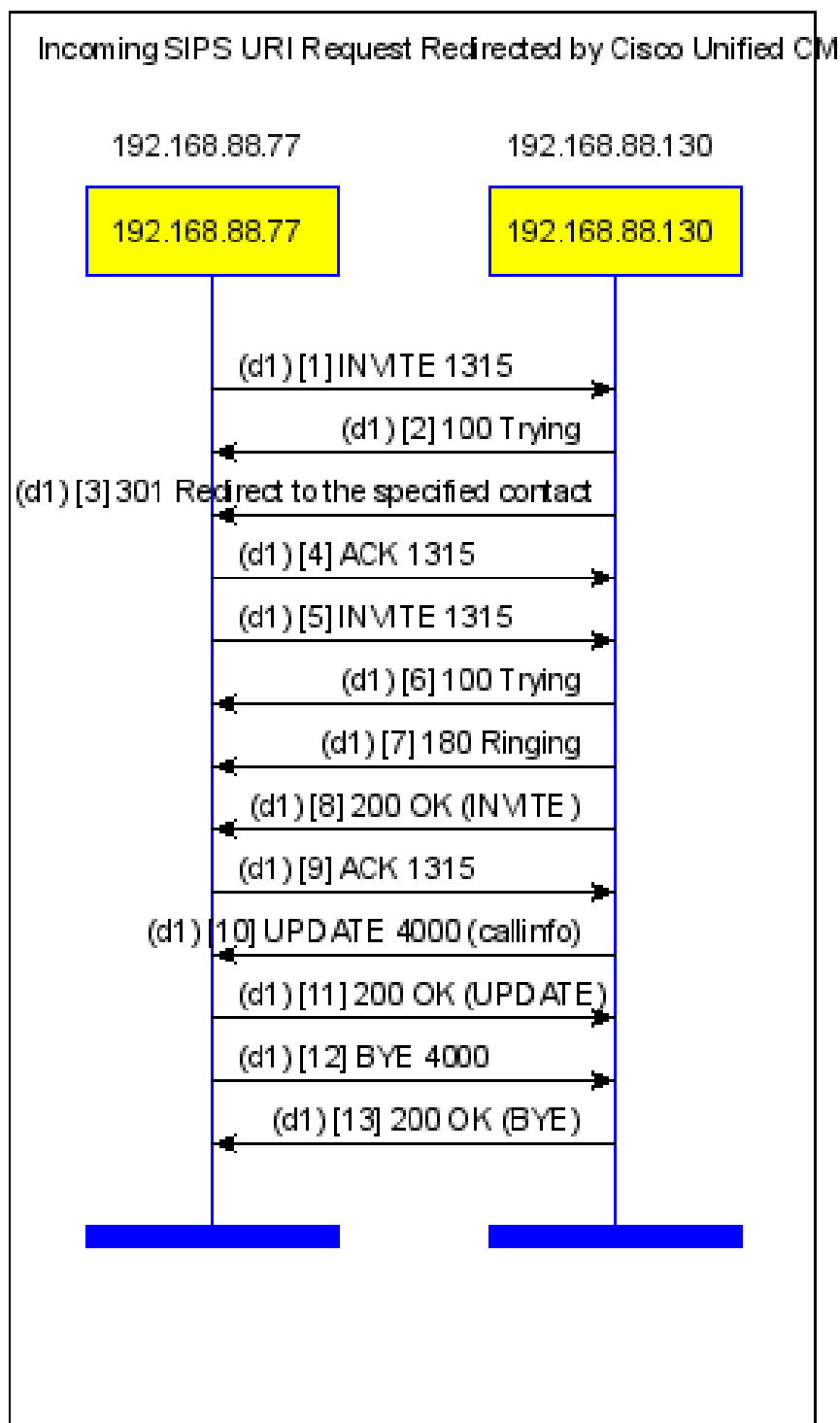
Call gets redirected directly to Phone B DN 1002 because of SIPS_URI_HANDLING Service Parameter.

Phone B DN 1002 answers the Call

Phone A DN 4040 goes onHook

End of Scenario

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Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK101227
 Remote-Party-ID: <sips:4000@192.168.88.77>;party=calling;screen=no;privacy=off
 From: <sips:4000@192.168.88.77>;tag=CECFD090-20AA
 To: <sips:1315@192.168.88.130>
 Date: Wed, 01 Dec 2010 20:48:05 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 Supported: 100rel,timer,resource-priority,replaces,sdp-anat,X-cisco-srtp-fallback
 Min-SE: 1800
 Cisco-Guid: 0539342035-4240642527-2155532054-0686351536
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 CSeq: 101 INVITE
 Max-Forwards: 70
 Timestamp: 1291236485
 Contact: <sips:4000@192.168.88.77:5061>
 Expires: 180
 Allow-Events: telephone-event
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 366

v=0
 o=CiscoSystemsSIP-GW-UserAgent 6863 4492 IN IP4 192.168.88.77
 s=SIP Call
 c=IN IP4 192.168.88.77
 t=0 0
 m=audio 17008 RTP/SAVP 0 8 18 19
 c=IN IP4 192.168.88.77
 a=crypto:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=yes
 a=rtpmap:19 CN/8000

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK101227
 From: <sips:4000@192.168.88.77>;tag=CECFD090-20AA
 To: <sips:1315@192.168.88.130>
 Date: Wed, 01 Dec 2010 12:19:04 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 301 Redirect to the specified contact**

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK101227
 From: <sips:4000@192.168.88.77>;tag=CECFD090-20AA
 To: <sips:1315@192.168.88.130>;tag=1446044981
 Date: Wed, 01 Dec 2010 12:19:04 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 CSeq: 101 INVITE
 Allow-Events: presence
 Contact: <sip:1315@192.168.88.130:5074;transport=tls>
 Diversion: sips:1315@192.168.88.130:5074
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] ACK sips:1315@192.168.88.130:5074 SIP/2.0**

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK101227
 From: <sips:4000@192.168.88.77>;tag=CECFD090-20AA
 To: <sips:1315@192.168.88.130>;tag=1446044981
 Date: Wed, 01 Dec 2010 20:48:05 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: telephone-event
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] INVITE sip:1315@192.168.88.130:5074;transport=tls SIP/2.0**

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK112001
 Remote-Party-ID: <sip:4000@192.168.88.77>;party=calling;screen=no;privacy=off
 From: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 To: <sip:1315@192.168.88.130>
 Date: Wed, 01 Dec 2010 20:48:05 GMT

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Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 Supported: 100rel, timer, resource-priority, replaces, sdp-anat, X-cisco-srtp-fallback
 Min-SE: 1800
 Cisco-Guid: 0539342035-4240642527-2155532054-0686351536
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 CSeq: 102 INVITE
 Max-Forwards: 70
 Timestamp: 1291236485
 Contact: <sip:4000@192.168.88.77:5061;transport=tls>
 Diversion: <sips:1315@192.168.88.130>
 Expires: 180
 Allow-Events: telephone-event
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 366

v=0
 o=CiscoSystemsSIP-GW-UserAgent 6863 4492 IN IP4 192.168.88.77
 s=SIP Call
 c=IN IP4 192.168.88.77
 t=0 0
 m=audio 17008 RTP/SAVP 0 8 18 19
 c=IN IP4 192.168.88.77
 a=crypto:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=yes
 a=rtpmap:19 CN/8000

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 100 Trying

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK112001
 From: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 To: <sip:1315@192.168.88.130>
 Date: Wed, 01 Dec 2010 12:19:04 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 CSeq: 102 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 180 Ringing

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK112001
 From: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 To: <sip:1315@192.168.88.130>;tag=15~9c1c1cb4-599d-46b2-9d59-3962d1277af4-30994849
 Date: Wed, 01 Dec 2010 12:19:04 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Remote-Party-ID: <sip:1315@192.168.88.130>;party=called;screen=yes;privacy=off
 Contact: <sip:1315@192.168.88.130:5074;transport=tls>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK112001
 From: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 To: <sip:1315@192.168.88.130>;tag=15~9c1c1cb4-599d-46b2-9d59-3962d1277af4-30994849
 Date: Wed, 01 Dec 2010 12:19:04 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 Remote-Party-ID: <sip:1315@192.168.88.130>;party=called;screen=yes;privacy=off
 Contact: <sip:1315@192.168.88.130:5074;transport=tls>
 Content-Type: application/sdp
 Content-Length: 248

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 192.168.88.130

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s=SIP Call
 c=IN IP4 192.168.88.115
 t=0 0
 m=audio 19228 RTP/SAVP 0
 a=crypto:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] ACK sip:1315@192.168.88.130:5074;transport=tls SIP/2.0

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK121C04
 From: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 To: <sip:1315@192.168.88.130>;tag=15~9c1c1cb4-599d-46b2-9d59-3962d1277af4-30994849
 Date: Wed, 01 Dec 2010 20:48:05 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: telephone-event
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] UPDATE sip:4000@192.168.88.77:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 192.168.88.130:5074;branch=z9hG4bK167a58455
 From: <sip:1315@192.168.88.130>;tag=15~9c1c1cb4-599d-46b2-9d59-3962d1277af4-30994849
 To: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 Date: Wed, 01 Dec 2010 12:19:06 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 UPDATE
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= Encrypted; gci= 1-75001; policy= chaperone
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Remote-Party-ID: <sip:1315@192.168.88.130>;party=calling;screen=yes;privacy=off
 Contact: <sip:4000@192.168.88.130:5074;transport=tls>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] SIP/2.0 200 OK

Via: SIP/2.0/TLS 192.168.88.130:5074;branch=z9hG4bK167a58455
 From: <sip:1315@192.168.88.130>;tag=15~9c1c1cb4-599d-46b2-9d59-3962d1277af4-30994849
 To: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 Date: Wed, 01 Dec 2010 20:48:07 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 UPDATE
 Allow-Events: telephone-event
 Contact: <sip:4000@192.168.88.77:5061;transport=tls>
 Supported: X-cisco-srtp-fallback
 Supported: timer
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] BYE sip:4000@192.168.88.130:5074;transport=tls SIP/2.0

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK1353B
 From: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 To: <sip:1315@192.168.88.130>;tag=15~9c1c1cb4-599d-46b2-9d59-3962d1277af4-30994849
 Date: Wed, 01 Dec 2010 20:48:07 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Max-Forwards: 70
 Timestamp: 1291236492
 CSeq: 103 BYE
 Reason: Q.850;cause=16
 P-RTP-Stat: PS=132,OS=21648,PR=239,OR=39196,PL=0,JI=0,LA=0,DU=4
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] SIP/2.0 200 OK

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bK1353B
 From: <sip:4000@192.168.88.77>;tag=CECFD0A4-1497
 To: <sip:1315@192.168.88.130>;tag=15~9c1c1cb4-599d-46b2-9d59-3962d1277af4-30994849
 Date: Wed, 01 Dec 2010 12:19:11 GMT
 Call-ID: 21AA7F21-FCC311DF-807FCF16-28E8E4B0@192.168.88.77
 CSeq: 103 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**8.2 Incoming SIPS URI Request Rejected by Cisco Unified CM**

Title: Incoming SIPS URI Request Rejected by Cisco Unified CM

Description:

Incoming SIPS URI request is rejected as directed by the SIPS URI service parameter.

Configuration:

Node = Unified CM1, IP = 10.10.199.250

Node = Gateway, IP = 10.10.197.25

Phone = A, Line = 4040, Model = FXPS

Phone = B, Line = 1002, IP = 10.10.199.238, Model = SIP TNP

SIP Trunk between Unified CM1 & Gateway

a) Has destination port configured to be 5061

b) Has "SIP Trunk Security Profile" point to the Gateway Sip Trunk Secure Profile, which is already configured to have correct X509 Subject Name.

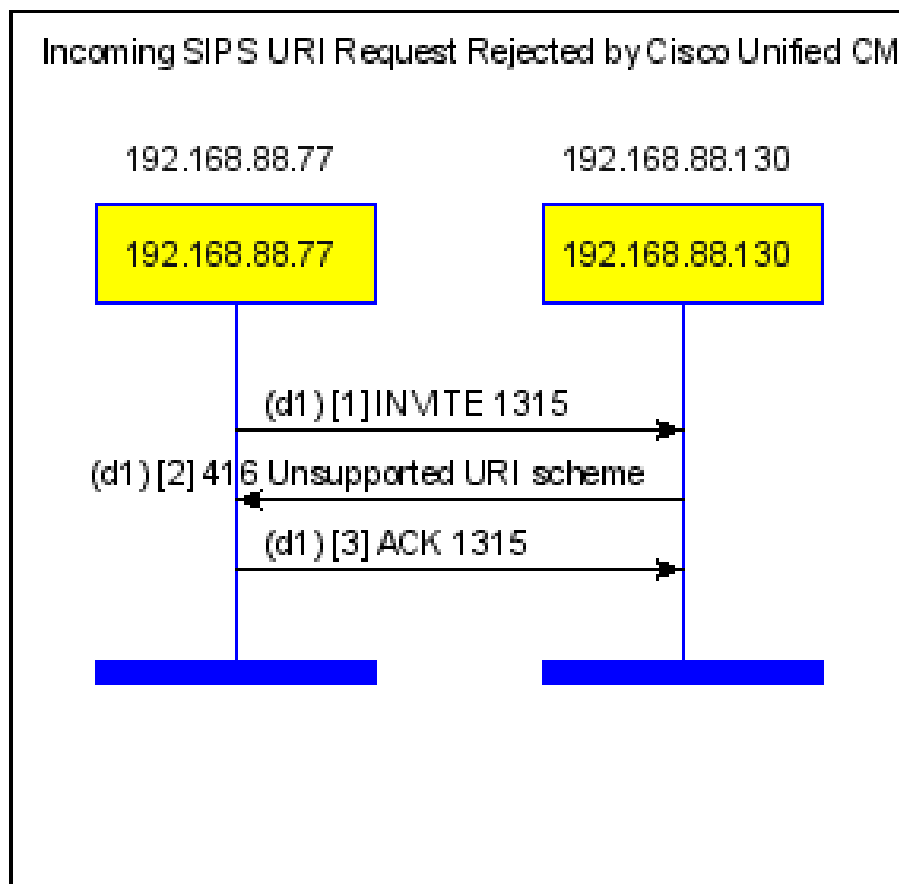
Scenario:

Phone A DN 4040 calls Phone B DN 1002

Call gets rejected because of SIPS_URI_HANDLING Service Parameter default Configuration.

Phone A DN 4040 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sips:1315@192.168.88.130:5074 SIP/2.0**

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bKF241E

Remote-Party-ID: <sips:4000@192.168.88.77>;party=calling;screen=no;privacy=off

From: <sips:4000@192.168.88.77>;tag=CECE8D38-105

To: <sips:1315@192.168.88.130>

Date: Wed, 01 Dec 2010 20:46:43 GMT

Call-ID: F053E329-FCC211DF-8079CF16-28E8E4B0@192.168.88.77

Supported: 100rel,timer,resource-priority,replaces,sdp-anat,X-cisco-srtp-fallback

Min-SE: 1800

Cisco-Guid: 4004149427-4240576991-2155138838-0686351536

User-Agent: Cisco-SIPGateway/IOS-12.x

Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER

CSeq: 101 INVITE

Max-Forwards: 70

Timestamp: 1291236403

Contact: <sips:4000@192.168.88.77:5061>

Expires: 180

Allow-Events: telephone-event

Content-Type: application/sdp

Content-Disposition: session;handling=required

Content-Length: 366

v=0

o=CiscoSystemsSIP-GW-UserAgent 6225 6808 IN IP4 192.168.88.77

s=SIP Call

c=IN IP4 192.168.88.77

t=0 0

m=audio 17312 RTP/SAVP 0 8 18 19

c=IN IP4 192.168.88.77

a=crypto:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=yes

a=rtpmap:19 CN/8000

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 416 Unsupported URI scheme**

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bKF241E

From: <sips:4000@192.168.88.77>;tag=CECE8D38-105

To: <sips:1315@192.168.88.130>;tag=791252979

Call-ID: F053E329-FCC211DF-8079CF16-28E8E4B0@192.168.88.77

CSeq: 101 INVITE

Reason: Q.850;cause=97

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] ACK sips:1315@192.168.88.130:5074 SIP/2.0**

Via: SIP/2.0/TLS 192.168.88.77:5061;branch=z9hG4bKF241E

From: <sips:4000@192.168.88.77>;tag=CECE8D38-105

To: <sips:1315@192.168.88.130>;tag=791252979

Date: Wed, 01 Dec 2010 20:46:43 GMT

Call-ID: F053E329-FCC211DF-8079CF16-28E8E4B0@192.168.88.77

Max-Forwards: 70

CSeq: 101 ACK

Allow-Events: telephone-event

Content-Length: 0

CISCO CONFIDENTIAL**9. Info****9.1 SIP Video Call Using INFO Method**

Title: SIP Video Call Using INFO Method

Description:

The INFO method is used by video capable SIP endpoints to signal different types of commands. The two commands supported by the SIP trunk device are Picture Fast Update and Picture Freeze.

Picture Fast Update is triggered by an endpoint to request a full I-frame to rebuild the frame buffer. Picture Fast Update is generally triggered at the beginning of a video session or when packet loss is severe.

Picture Freeze is used to do exactly what it sounds like. If an endpoint wishes to stop updating a picture it sends this command to indicate the current buffer should be maintained.

Configuration:

Node = Unified CM1, IP = 10.89.79.72

Node = Unified CM2, IP = 10.89.74.198

Phone = A, Line = 1009, IP = 10.89.78.251, Model = SCCP Video Endpoint

Phone = B, Line = 2008, IP = 10.10.78.252, Model = SCCP Video Endpoint

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 9.XXXX

Scenario:

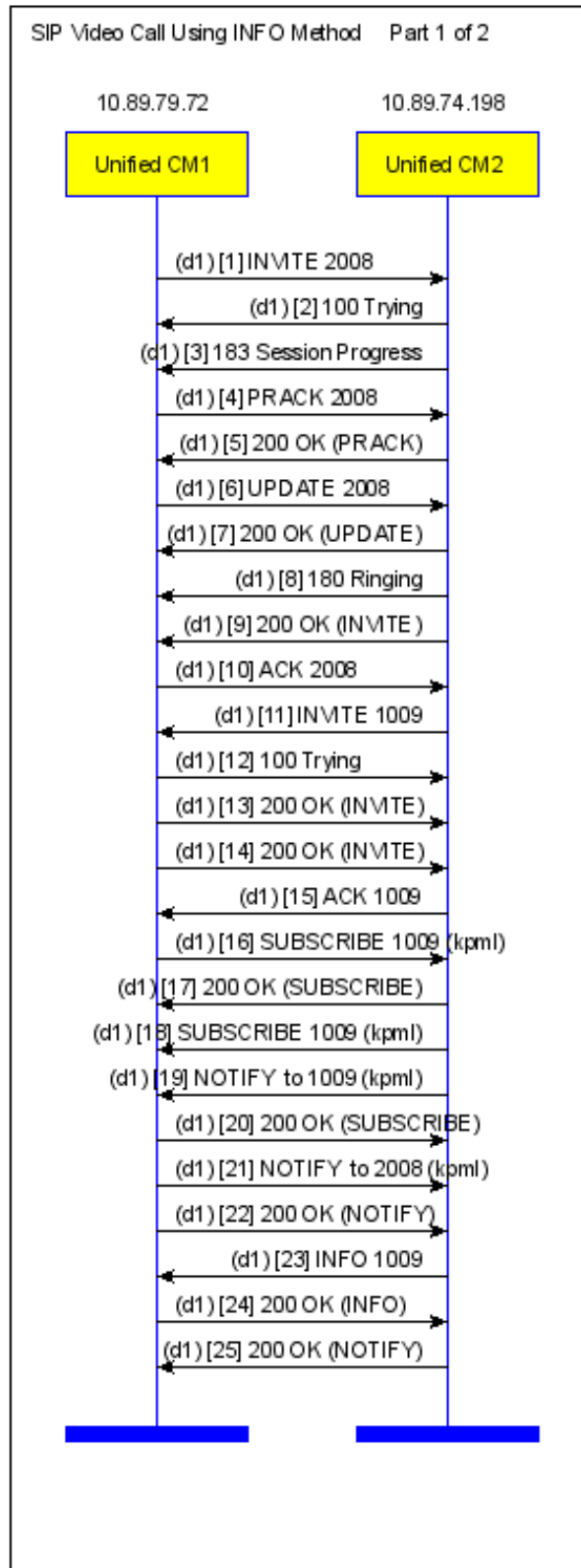
Phone A DN 1009 calls Phone B DN 2008 over the SIP Trunk by dialing 92008

Phone B DN 2008 Answers

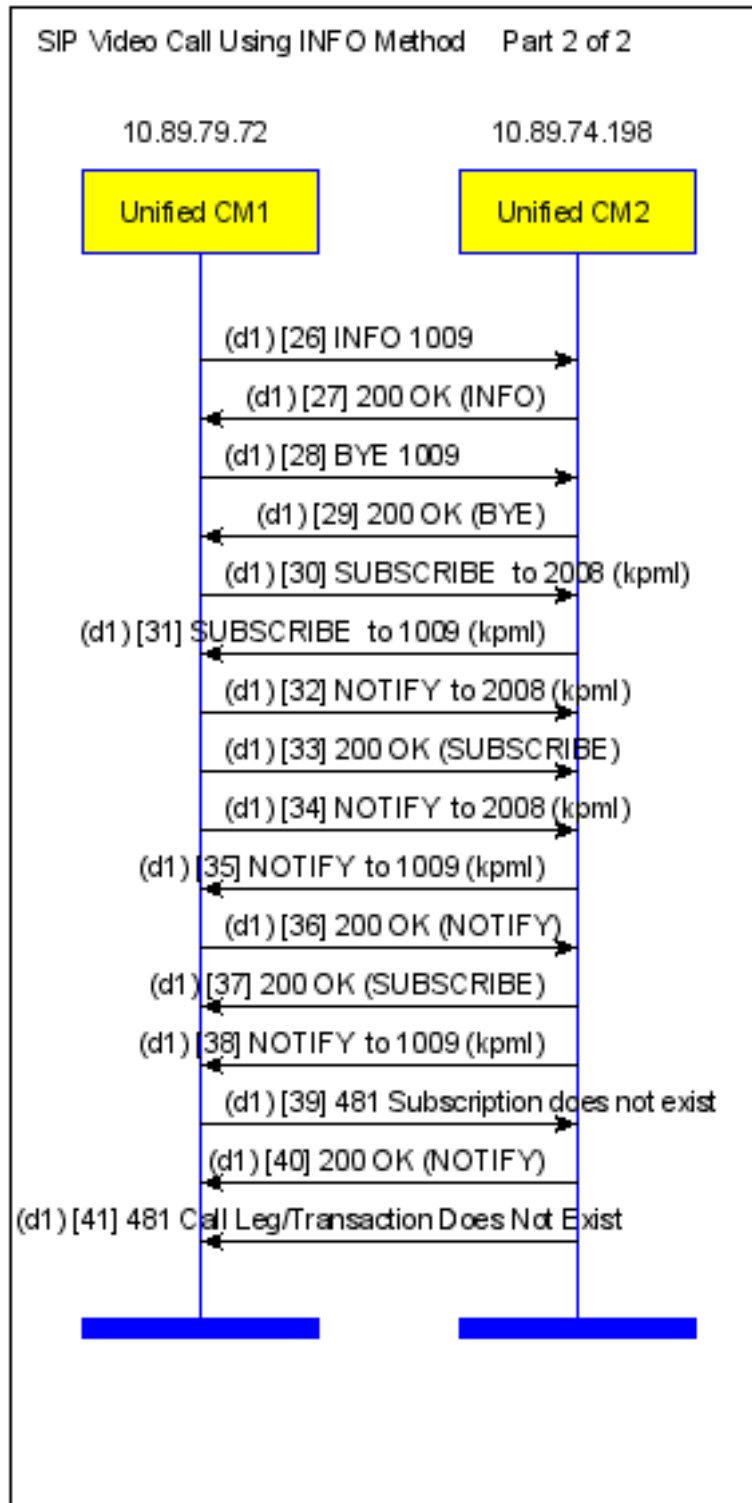
Phone A DN 1009 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2008@10.89.74.198:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK4f684df62a
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>
 Date: Fri, 19 Nov 2010 23:38:04 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 Supported: 100rel, timer, resource-priority, replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.79.72:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Supported: precondition
 Cisco-Guid: 0209738624-0000065536-0000000008-1213159690
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1009@10.89.79.72>
 Remote-Party-ID: <sip:1009@10.89.79.72>;party=calling;screen=yes;privacy=off
 Contact: <sip:1009@10.89.79.72:5060;transport=tcp>;video;audio
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 580

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.79.72
 s=SIP Call
 c=IN IP4 10.89.78.251
 t=0 0
 m=audio 17222 RTP/AVP 9 0 8 18 101
 a=curr:qos e2e none
 a=des:qos optional e2e sendrecv
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 m=video 16384 RTP/AVP 31 34 96 97
 b=TIAS:768000
 a=curr:qos e2e none
 a=des:qos optional e2e sendrecv
 a=rtpmap:31 H261/90000
 a=rtpmap:34 H263/90000
 a=rtpmap:96 H263-1998/90000
 a=rtpmap:97 H264/90000

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK4f684df62a
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>
 Date: Fri, 19 Nov 2010 22:52:52 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK4f684df62a
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Date: Fri, 19 Nov 2010 22:52:52 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 101 INVITE
 Require: 100rel
 RSeq: 1136893513
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Call-Info: <urn:x-cisco-remotecc>;purpose=x-cisco-preconditions
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation

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Supported: precondition
P-Asserted-Identity: <sip:2008@10.89.74.198>
Remote-Party-ID: <sip:2008@10.89.74.198>;party=called;screen=yes;privacy=off
Contact: <sip:2008@10.89.74.198:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 513

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.74.198
s=SIP Call
c=IN IP4 10.89.78.252
t=0 0
m=audio 17042 RTP/AVP 9 101
a=curr:qos e2e none
a=des:qos optional e2e sendrecv
a=conf:qos e2e recv
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 18110 RTP/AVP 31 34 96 97
b=TIAS:384000
a=curr:qos e2e none
a=des:qos optional e2e sendrecv
a=conf:qos e2e recv
a=rtpmap:31 H261/90000
a=rtpmap:34 H263/90000
a=rtpmap:96 H263-1998/90000
a=rtpmap:97 H264/90000
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[4] PRACK sip:2008@10.89.74.198:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5023ef50e0
From: <sip:1009@10.89.79.72>;tag=72-3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14-e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 23:38:04 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 102 PRACK
RACK: 1136893513 101 INVITE
Allow-Events: presence, kpml
Max-Forwards: 70
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5023ef50e0
From: <sip:1009@10.89.79.72>;tag=72-3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14-e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 22:52:52 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 102 PRACK
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] UPDATE sip:2008@10.89.74.198:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK51722bbc49
From: <sip:1009@10.89.79.72>;tag=72-3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14-e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 23:38:04 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
Supported: 100rel, timer, resource-priority, replaces
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 UPDATE
Supported: precondition
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1009@10.89.79.72>
Remote-Party-ID: <sip:1009@10.89.79.72>;party=calling;screen=yes;privacy=off
Contact: <sip:1009@10.89.79.72:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 470

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.79.72
s=SIP Call
c=IN IP4 10.89.78.251
t=0 0
```

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```

m=audio 17222 RTP/AVP 9 101
a=curr:qos e2e send
a=des:qos optional e2e sendrecv
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 16384 RTP/AVP 31 34 96 97
b=TIAS:768000
a=curr:qos e2e send
a=des:qos optional e2e sendrecv
a=rtpmap:31 H261/90000
a=rtpmap:34 H263/90000
a=rtpmap:96 H263-1998/90000
a=rtpmap:97 H264/90000

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK51722bbc49
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 22:52:53 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 103 UPDATE
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: <urn:x-cisco-remotecc:>;purpose=x-cisco-preconditions
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2008@10.89.74.198>
Remote-Party-ID: <sip:2008@10.89.74.198>;party=called;screen=yes;privacy=off
Contact: <sip:2008@10.89.74.198:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 479

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.74.198
s=SIP Call
c=IN IP4 10.89.78.252
t=0 0
m=audio 17042 RTP/AVP 9 101
a=curr:qos e2e sendrecv
a=des:qos optional e2e sendrecv
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 18110 RTP/AVP 31 34 96 97
b=TIAS:384000
a=curr:qos e2e sendrecv
a=des:qos optional e2e sendrecv
a=rtpmap:31 H261/90000
a=rtpmap:34 H263/90000
a=rtpmap:96 H263-1998/90000
a=rtpmap:97 H264/90000

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 180 Ringing

```

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK4f684df62a
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 22:52:53 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:2008@10.89.74.198>
Remote-Party-ID: <sip:2008@10.89.74.198>;party=called;screen=yes;privacy=off
Contact: <sip:2008@10.89.74.198:5060;transport=tcp>
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK4f684df62a
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 22:52:53 GMT

```

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Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2008@10.89.74.198>
 Remote-Party-ID: <sip:2008@10.89.74.198>;party=called;screen=yes;privacy=off
 Contact: <sip:2008@10.89.74.198:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 479

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.74.198
 s=SIP Call
 c=IN IP4 10.89.78.252
 t=0 0
 m=audio 17042 RTP/AVP 9 101
 a=curr:qos e2e sendrecv
 a=des:qos optional e2e sendrecv
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 m=video 18110 RTP/AVP 31 34 96 97
 b=TIAS:384000
 a=curr:qos e2e sendrecv
 a=des:qos optional e2e sendrecv
 a=rtpmap:31 H261/90000
 a=rtpmap:34 H263/90000
 a=rtpmap:96 H263-1998/90000
 a=rtpmap:97 H264/90000

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:2008@10.89.74.198:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK523eab786f
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Date: Fri, 19 Nov 2010 23:38:04 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INVITE sip:1009@10.89.79.72:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK2e774c238d
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 22:52:53 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 0209738624-0000065536-0000000008-1213159690
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Supported: precondition
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2008@10.89.74.198>
 Remote-Party-ID: <sip:2008@10.89.74.198>;party=calling;screen=yes;privacy=off
 Contact: <sip:1009@10.89.74.198:5060;transport=tcp>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK2e774c238d
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 23:38:05 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72

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CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK2e774c238d
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 23:38:05 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1009@10.89.79.72>
 Remote-Party-ID: <sip:1009@10.89.79.72>;party=called;screen=yes;privacy=off
 Contact: <sip:1009@10.89.79.72:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 784

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.79.72
 s=SIP Call
 c=IN IP4 10.89.78.251
 t=0 0
 m=audio 17222 RTP/AVP 9 0 8 18 101
 a=curr:qos e2e sendrecv
 a=des:qos optional e2e sendrecv
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 m=video 16384 RTP/AVP 97 96 34 31
 b=TIAS:2000000
 a=curr:qos e2e sendrecv
 a=des:qos optional e2e sendrecv
 a=rtpmap:97 H264/90000
 a=fmtp:97 profile-level-id=42000D;packetization-mode=0;level-asymmetry-allowed=1
 a=rtpmap:96 H263-1998/90000
 a=fmtp:96 QCIF=1;CIF=1;MAXBR=7040;CUSTOM=352,240,1
 a=rtpmap:34 H263/90000
 a=fmtp:34 MAXBR=7040
 a=rtpmap:31 H261/90000
 a=fmtp:31 CIF=1;QCIF=1;MAXBR=7040;D=1

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK2e774c238d
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 23:38:05 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1009@10.89.79.72>
 Remote-Party-ID: <sip:1009@10.89.79.72>;party=called;screen=yes;privacy=off
 Contact: <sip:1009@10.89.79.72:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 784

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.79.72
 s=SIP Call

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```

c=IN IP4 10.89.78.251
t=0 0
m=audio 17222 RTP/AVP 9 0 8 18 101
a=curr:qos e2e sendrecv
a=des:qos optional e2e sendrecv
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 16384 RTP/AVP 97 96 34 31
b=TIAS:2000000
a=curr:qos e2e sendrecv
a=des:qos optional e2e sendrecv
a=rtpmap:97 H264/90000
a=fmtp:97 profile-level-id=42000D;packetization-mode=0;level-asymmetry-allowed=1
a=rtpmap:96 H263-1998/90000
a=fmtp:96 QCIF=1;CIF=1;MAXBR=7040;CUSTOM=352,240,1
a=rtpmap:34 H263/90000
a=fmtp:34 MAXBR=7040
a=rtpmap:31 H261/90000
a=fmtp:31 CIF=1;QCIF=1;MAXBR=7040;D=1

[diagram] Call-ID: [prev][next]
[15] ACK sip:1009@10.89.79.72:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK2f90ebff
From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
Date: Fri, 19 Nov 2010 22:52:53 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 475

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.74.198
s=SIP Call
c=IN IP4 10.89.78.252
t=0 0
m=audio 17042 RTP/AVP 9 101
a=curr:qos e2e sendrecv
a=des:qos optional e2e sendrecv
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 18110 RTP/AVP 97
b=TIAS:320000
a=curr:qos e2e sendrecv
a=des:qos optional e2e sendrecv
a=rtpmap:97 H264/90000
a=fmtp:97 profile-level-id=42000D;packetization-mode=0;level-asymmetry-allowed=1

[diagram] Call-ID: [prev][next]
[16] SUBSCRIBE sip:1009@10.89.74.198:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5373aeb07
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 104 SUBSCRIBE
Date: Fri, 19 Nov 2010 23:38:06 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.79.72:5060;transport=tcp>
P-Asserted-Identity: <sip:1009@10.89.79.72>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-

```

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```
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
<pattern interdigittimer="7260000" persist="persist">
  <regex tag="dtmf">[x*#ABCD]</regex>
</pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5373aeb07
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 22:52:54 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 104 SUBSCRIBE
Contact: <sip:10.89.74.198:5060;transport=tcp>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SUBSCRIBE sip:1009@10.89.79.72:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK305e3b9e04
From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 102 SUBSCRIBE
Date: Fri, 19 Nov 2010 22:52:54 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.74.198:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
<pattern interdigittimer="7260000" persist="persist">
  <regex tag="dtmf">[x*#ABCD]</regex>
</pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] NOTIFY sip:10.89.79.72:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK317c7aa79a
From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 103 NOTIFY
Max-Forwards: 70
Date: Fri, 19 Nov 2010 22:52:54 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:10.89.74.198:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK305e3b9e04
From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
Date: Fri, 19 Nov 2010 23:38:06 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 102 SUBSCRIBE
Contact: <sip:10.89.79.72:5060;transport=tcp>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:10.89.74.198:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5457faecbb
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
```


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CSeq: 105 NOTIFY
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 23:38:06 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:10.89.79.72:5060;transport=tcp>
 P-Asserted-Identity: <sip:1009@10.89.79.72>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK317c7aa79a
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 23:38:06 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] INFO sip:1009@10.89.79.72:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK323da65ac0
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 22:52:53 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 104 INFO
 Contact: <sip:2008@10.89.74.198:5060;transport=tcp>
 Remote-Party-ID: <sip:2008@10.89.74.198>;party=called;screen=yes;privacy=off
 Content-Type: application/media_control+xml
 Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[24] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK323da65ac0
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 23:38:06 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 104 INFO
 Contact: <sip:1009@10.89.79.72:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[25] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5457faeccb
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Date: Fri, 19 Nov 2010 22:52:54 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 105 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] INFO sip:1009@10.89.74.198:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK55445da11f
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Date: Fri, 19 Nov 2010 23:38:06 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 106 INFO
 Contact: <sip:1009@10.89.79.72:5060;transport=tcp>
 Content-Type: application/media_control+xml
 Content-Length: 190

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```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK55445da11f
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 22:52:54 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 106 INFO
Contact: <sip:2008@10.89.74.198:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] BYE sip:1009@10.89.74.198:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5640116bed
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 23:38:06 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1009@10.89.79.72>
CSeq: 107 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5640116bed
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Date: Fri, 19 Nov 2010 22:53:03 GMT
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 107 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SUBSCRIBE sip:10.89.74.198:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK576aa9d5fb
From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 108 SUBSCRIBE
Date: Fri, 19 Nov 2010 23:38:15 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 0
Contact: <sip:10.89.79.72:5060;transport=tcp>
P-Asserted-Identity: <sip:1009@10.89.79.72>
Max-Forwards: 70
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SUBSCRIBE sip:10.89.79.72:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK333bb87f7f
From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
CSeq: 105 SUBSCRIBE
Date: Fri, 19 Nov 2010 22:53:03 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 0
Contact: <sip:10.89.74.198:5060;transport=tcp>
Max-Forwards: 70
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] NOTIFY sip:10.89.74.198:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK585ef2d100
```


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From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 109 NOTIFY
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 23:38:15 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:10.89.79.72:5060;transport=tcp>
 P-Asserted-Identity: <sip:1009@10.89.79.72>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[33] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK333bb87f7f
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 23:38:15 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 105 SUBSCRIBE
 Contact: <sip:10.89.79.72:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[34] NOTIFY sip:10.89.74.198:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5967238fde
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 110 NOTIFY
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 23:38:15 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:10.89.79.72:5060;transport=tcp>
 P-Asserted-Identity: <sip:1009@10.89.79.72>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[35] NOTIFY sip:10.89.79.72:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK341873ac45
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 22:53:03 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:10.89.74.198:5060;transport=tcp>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[36] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK341873ac45
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 23:38:15 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 106 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[37] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK576aa9d5fb
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Date: Fri, 19 Nov 2010 22:53:03 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 108 SUBSCRIBE

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Contact: <sip:10.89.74.198:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[38] NOTIFY sip:10.89.79.72:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK3577fbc2c3
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 107 NOTIFY
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 22:53:03 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:10.89.74.198:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[39] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK3577fbc2c3
 From: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 To: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 Date: Fri, 19 Nov 2010 23:38:15 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 107 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[40] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK585ef2d100
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Date: Fri, 19 Nov 2010 22:53:03 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 109 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[41] SIP/2.0 481 Call Leg/Transaction Does Not Exist

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK5967238fde
 From: <sip:1009@10.89.79.72>;tag=72~3fa9f898-1479-4847-a284-e2f0412cc7d2-27006153
 To: <sip:2008@10.89.74.198>;tag=14~e582065f-77ca-46dc-85bc-681fcd20759b-26995412
 Date: Fri, 19 Nov 2010 22:53:03 GMT
 Call-ID: c805b80-ce710a5c-10-484f590a@10.89.79.72
 CSeq: 110 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**10. MWI****10.1 MWI Status via Unsolicited NOTIFY**

Title: MWI Status via Unsolicited NOTIFY

Description:

RFC3842 describes a standard way of delivering voicemail status using the SIP SUBSCRIBE/NOTIFY framework. However, many SIP devices already deliver voicemail information using the format described in RFC3842 but using unsolicited NOTIFY.

The following demonstrates how two Unified Cisco CM can accept unsolicited NOTIFY to deliver Message Waiting Indication (MWI) status. The example below shows how a SIP based voice-mail server could send a "Lamp On" status for the CM hosted device(s) assigned to directory number 1001

Configuration:

Node = Voice Mail Server, IP = 10.89.77.5

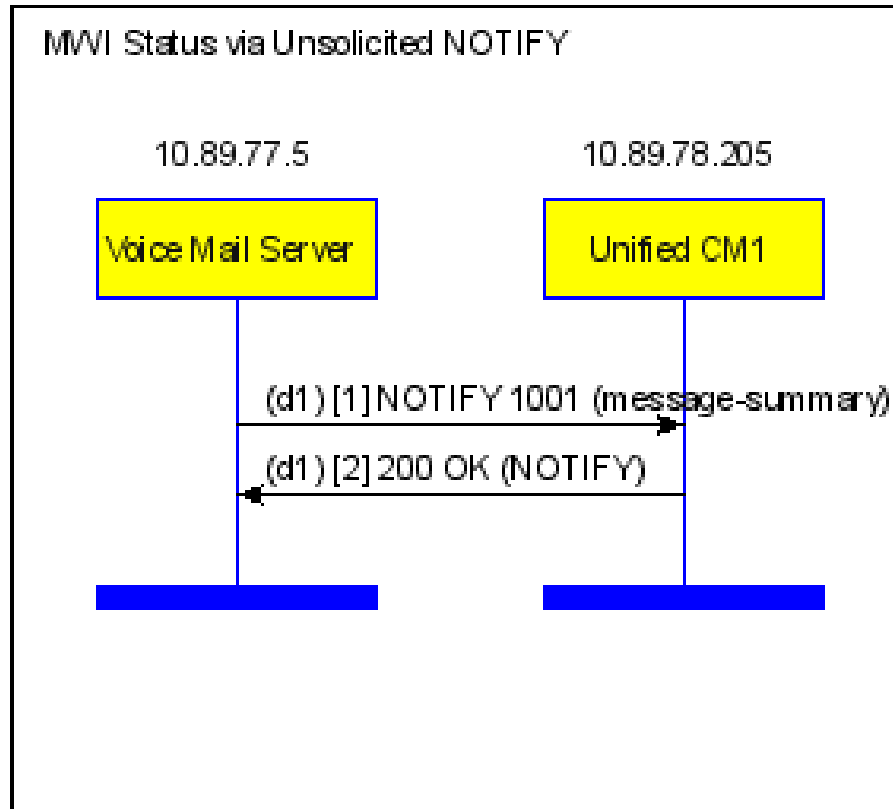
Node = Unified CM1, IP = 10.89.78.205

For Call Manager Unified CM1, the SIP Trunk Security Profile is configured to have "Accept Unsolicited Notification" checked.

Scenario:

Remote Voice Mail Server sends Unsolicited NOTIFY message to Unified CM1 to indicate Messages-Waiting for phone 1001.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] NOTIFY sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.77.5:5060

From: <sip:5678@10.89.77.5:5060>;tag=1

To: <sip:1001@10.89.78.205:5060>

Call-ID: 1-12167@10.89.77.5

CSeq: 1 NOTIFY

Event: message-summary

Allow: INVITE,ACK,BYE,CANCEL,OPTIONS,REGISTER,INFO,PRACK,SUBSCRIBE,NOTIFY,REFER,UPDATE

Expires: 180

Contact: sip:5678@10.89.77.5:5060

Max-Forwards: 70

Content-Type: text/plain

Content-Length: 23

Messages-Waiting: yes

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.77.5:5060

From: <sip:5678@10.89.77.5:5060>;tag=1

To: <sip:1001@10.89.78.205:5060>;tag=1530506906

Date: Wed, 03 Nov 2010 17:05:08 GMT

Call-ID: 1-12167@10.89.77.5

CSeq: 1 NOTIFY

Content-Length: 0

CISCO CONFIDENTIAL**11. Prack****11.1 Outbound Early Media Call with PRACK**

Title: Outbound Early Media Call with PRACK

Description:

This flow shows a basic early media call from a SCCP phone to a SIP phone off a Call Manager via a SIP Trunk with rel1xx enabled. Outgoing INVITE has SDP.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2001, IP = 10.13.5.220, Model = SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has

a) route pattern 2.XXXX

b) Media Termination Point Required checked.

Call Manager Service Parameter SIP_Rel1XX_Enabled set to True on both Call Manager's.

Scenario:

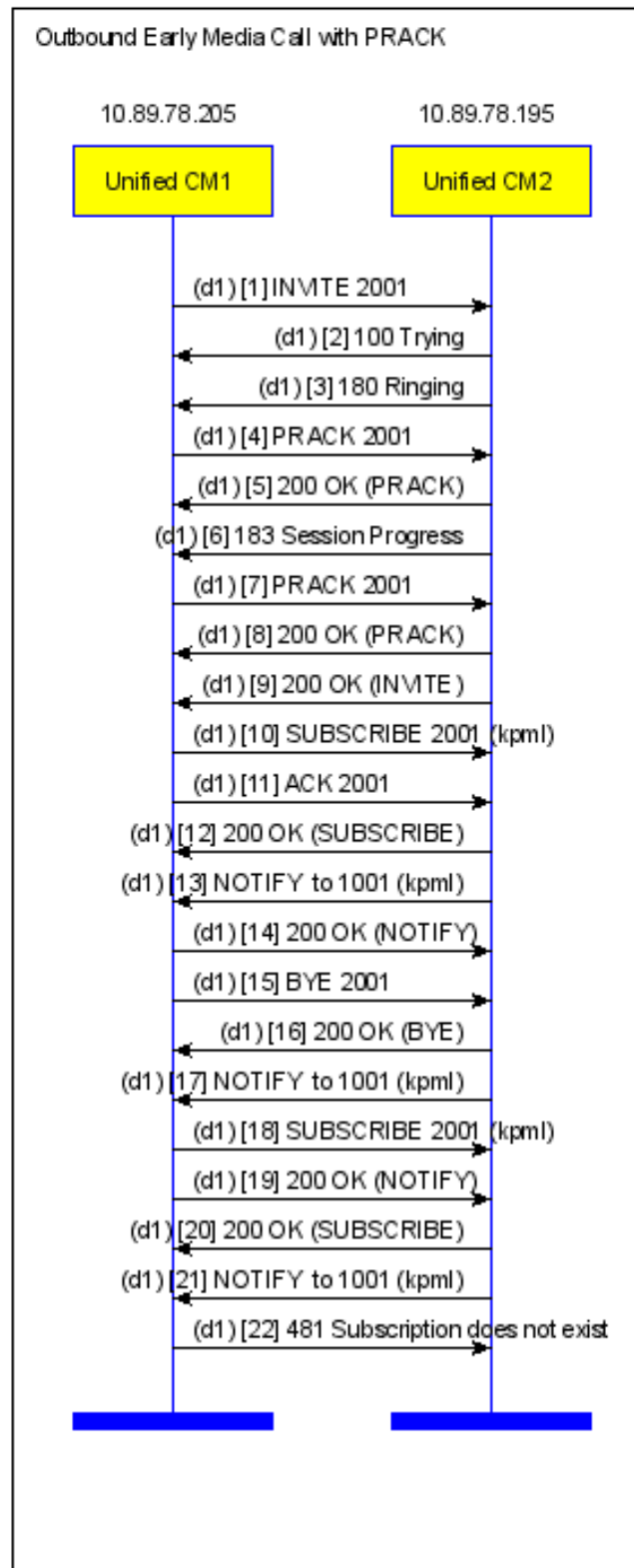
Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK375e85e4cc
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>
 Date: Mon, 01 Nov 2010 18:23:48 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 Supported: 100rel,timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 0704878464-0000065536-0000000023-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 212

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 24608 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK375e85e4cc
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>
 Date: Mon, 01 Nov 2010 18:23:48 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK375e85e4cc
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:48 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Require: 100rel
 RSeq: 2075650778
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] PRACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK385ceef5f
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:48 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 102 PRACK
 Rack: 2075650778 101 INVITE
 Allow-Events: presence, kpml
 Max-Forwards: 70
 Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[5] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK385ceef5f
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:49 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 102 PRACK
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[6] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK375e85e4cc
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:49 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Require: 100rel
 RSeq: 2075650779
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 30024 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[7] PRACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3953cd0c76
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:48 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 103 PRACK
 RACK: 2075650779 101 INVITE
 Allow-Events: presence, kpml
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[8] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3953cd0c76
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:54 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 103 PRACK
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[9] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK375e85e4cc
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:54 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2001@10.89.78.195>

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Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 30024 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SUBSCRIBE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3a58e5ad48
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Date: Mon, 01 Nov 2010 18:23:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3b463a22ff
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:48 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3a58e5ad48
 From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:23:54 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK735ad046dc
 From: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 To: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Mon, 01 Nov 2010 18:23:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200

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Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK735ad046dc
From: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
To: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
Date: Mon, 01 Nov 2010 18:23:54 GMT
Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
CSeq: 101 NOTIFY
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] BYE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3c188d9012
From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
Date: Mon, 01 Nov 2010 18:23:48 GMT
Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 105 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3c188d9012
From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
Date: Mon, 01 Nov 2010 18:24:06 GMT
Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
CSeq: 105 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK7546d69664
From: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
To: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Mon, 01 Nov 2010 18:24:06 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: terminated
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SUBSCRIBE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3d18ae388b
From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
CSeq: 106 SUBSCRIBE
Date: Mon, 01 Nov 2010 18:24:06 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 0
Contact: <sip:10.89.78.205:5060;transport=tcp>
P-Asserted-Identity: <sip:1001@10.89.78.205>
Max-Forwards: 70
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK7546d69664
From: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
To: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
Date: Mon, 01 Nov 2010 18:24:06 GMT
Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
CSeq: 102 NOTIFY
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3d18ae388b

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From: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 To: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 Date: Mon, 01 Nov 2010 18:24:06 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 106 SUBSCRIBE
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK761d32c188
 From: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 To: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Mon, 01 Nov 2010 18:24:06 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK761d32c188
 From: <sip:2001@10.89.78.195>;tag=3093~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316662
 To: <sip:1001@10.89.78.205>;tag=49~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309433
 Date: Mon, 01 Nov 2010 18:24:06 GMT
 Call-ID: 2a039780-ccf105b4-1c-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**11.2 Outbound Delayed Media Call with PRACK**

Title: Outbound Delayed Media Call with PRACK

Description:

This flow shows a basic delayed media call from a SCCP phone to SIP phone off a Call Manager via a SIP Trunk with rel1xx enabled. Outgoing INVITE has no SDP.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2001, IP = 10.13.5.220, Model = SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has

a) route pattern 2.XXXX

Call Manager Service Parameter SIP_Rel1XX_Enabled set to True on both Call Manager's.

Scenario:

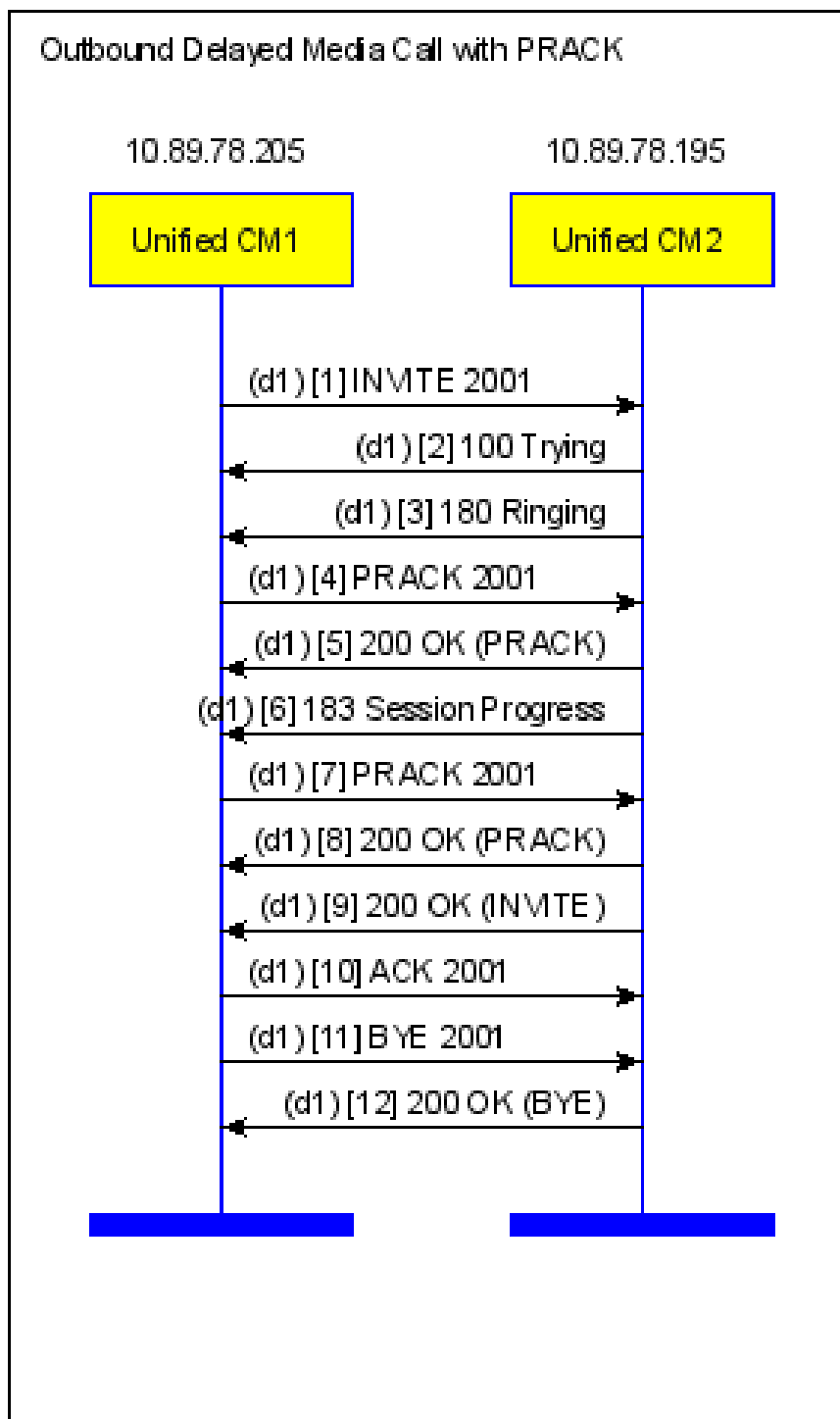
Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone A DN 1001 goes onHook

End of Scenario

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK322f28b421
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 Supported: 100rel, timer, resource-priority, replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2229845760-00000065536-0000000022-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK322f28b421
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK322f28b421
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Require: 100rel
 RSeq: 1243079747
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] PRACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK337f1a5c60
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 102 PRACK
 RACK: 1243079747 101 INVITE
 Allow-Events: presence, kpml
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK337f1a5c60
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 102 PRACK
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[6] SIP/2.0 183 Session Progress**

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK322f28b421
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Require: 100rel
 RSeq: 1243079748
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 21734 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] PRACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK345e618c97
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 103 PRACK
 RACK: 1243079748 101 INVITE
 Allow-Events: presence, kpml
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 18504 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK345e618c97
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:14 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 103 PRACK
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK322f28b421
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:14 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

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Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 21734 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK356159437c
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 18504 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] BYE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK362813186a
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:11 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK362813186a
 From: <sip:1001@10.89.78.205>;tag=47~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309431
 To: <sip:2001@10.89.78.195>;tag=3086~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316660
 Date: Mon, 01 Nov 2010 18:19:22 GMT
 Call-ID: 84e8bf00-ccf1049f-1b-cd4e590a@10.89.78.205
 CSeq: 104 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**12. CallPreservation****12.1 Session Timers Negotiation & Refresh for the Sip Trunk Call on "Cisco Unified CM"**

Title: Session Timers Negotiation & Refresh for the Sip Trunk Call on "Cisco Unified CM"

Description:

Cisco Unified IP Phone1---Cisco Unified CM1--siptrunk--Cisco Unified CM2---Cisco Unified IP Phone2

Note:

There are 2 Service Params "SIP Min-SE Value" & "SIP Session Expires Timer" and initial session

timers negotiation for an Invite dialog is based on these.

For this scenario the following are configured values:-

"Cisco Unified CM1" (Min-SE 60, SE 90)

"Cisco Unified CM2" (Min-SE 120, SE 230)

For the Cisco Unified IP Phone1 to Cisco Unified IP Phone2 call as per above topology, the initial outgoing INVITE from "Cisco Unified CM1" contains the Min-SE header with value 60 secs

and Session-Expires header with value 90 secs. The "Cisco Unified CM2" expects Min-SE value of

120 secs, so it sends 422 (SE Timer too small) indicating the required value in Min-SE header.

The "Cisco Unified CM1" sends an Invite with updated value in Session-Expires header. The "Cisco Unified CM2" accepts it and sends 200 OK with Session-Expires header having negotiated

timeout and refresher="uas" is set because "Cisco Unified CM1" (i.e uac) didn't specify the refresher and the uas has an option to choose itself as the refresher. With 200 OK and ACK exchange an Invite dialog gets established.

The session timeout negotiated on the sip trunk is 120 secs, this session refresh happens every $120/2 = 60$ secs. There are 2 session refresh request/response exchanges depicted in the flow.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

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Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Service Parameters Min-SE and SE values are changed for both Call Managers, as described above.

Scenario:

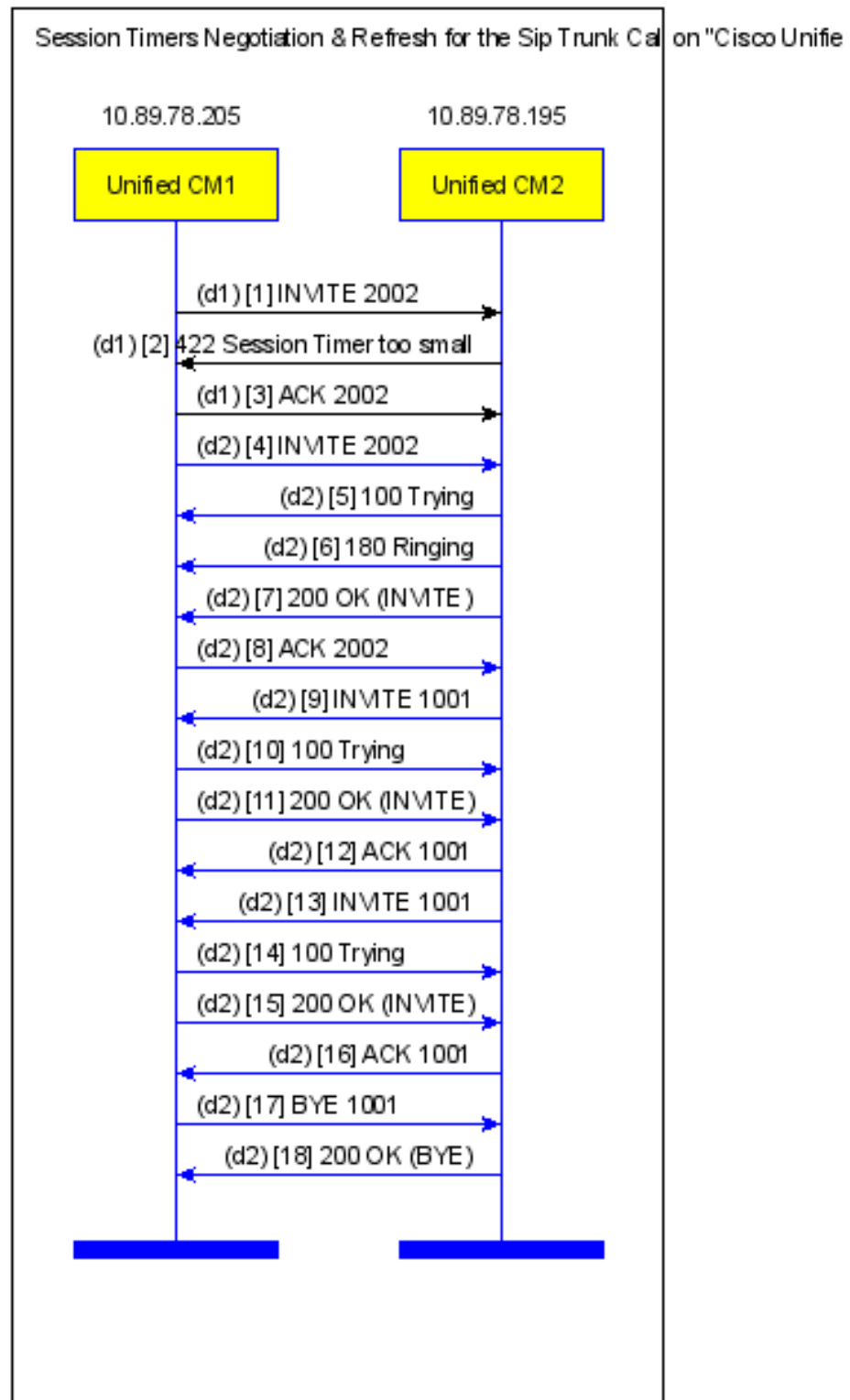
Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A and Phone B talk for 2 and half minutes

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4ae53b9dc
 From: <sip:1001@10.89.78.205>;tag=57~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 20:11:34 GMT
 Call-ID: 380ce480-ccf11ef6-21-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 60
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0940369024-0000065536-0000000028-3444463882
 Session-Expires: 90
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 422 Session Timer too small**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4ae53b9dc
 From: <sip:1001@10.89.78.205>;tag=57~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>;tag=760556758
 Date: Mon, 01 Nov 2010 20:11:34 GMT
 Call-ID: 380ce480-ccf11ef6-21-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Min-SE: 120
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] ACK sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4ae53b9dc
 From: <sip:1001@10.89.78.205>;tag=57~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>;tag=760556758
 Date: Mon, 01 Nov 2010 20:11:34 GMT
 Call-ID: 380ce480-ccf11ef6-21-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4b78bb6976
 From: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 20:11:34 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0940369024-0000065536-0000000029-3444463882
 Session-Expires: 120
 Min-SE: 120
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4b78bb6976
 From: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 20:11:34 GMT

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Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4b78bb6976
 From: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 Date: Mon, 01 Nov 2010 20:11:34 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4b78bb6976
 From: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 Date: Mon, 01 Nov 2010 20:11:34 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 120;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 31378 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[8] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4c59f08445
 From: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 Date: Mon, 01 Nov 2010 20:11:34 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 21344 RTP/AVP 9 101
 a=rtpmap:9 G722/8000

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```
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[9] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK8a5f59589b
From: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
To: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
Date: Mon, 01 Nov 2010 20:12:40 GMT
Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 0940369024-0000065536-0000000029-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 321
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 31378 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[10] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK8a5f59589b
From: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
To: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
Date: Mon, 01 Nov 2010 20:12:40 GMT
Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[11] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK8a5f59589b
From: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
To: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
Date: Mon, 01 Nov 2010 20:12:40 GMT
Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
Require: timer
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
```

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s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 21344 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK8b5c6ab99d
 From: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 To: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 Date: Mon, 01 Nov 2010 20:12:40 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] INVITE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK8cb9c61a8
 From: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 To: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 Date: Mon, 01 Nov 2010 20:13:40 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 120
 Cisco-Guid: 0940369024-0000065536-0000000029-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 120;refresher=uac
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 31378 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[14] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK8cb9c61a8
 From: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 To: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 Date: Mon, 01 Nov 2010 20:13:40 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[15] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK8cb9c61a8
 From: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 To: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 Date: Mon, 01 Nov 2010 20:13:40 GMT

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Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 120;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 21344 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK8d3faffcdd
 From: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 To: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 Date: Mon, 01 Nov 2010 20:13:40 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] BYE sip:1001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4d6bcc3840
 From: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 Date: Mon, 01 Nov 2010 20:13:40 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK4d6bcc3840
 From: <sip:1001@10.89.78.205>;tag=58~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309444
 To: <sip:2002@10.89.78.195>;tag=3160~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316668
 Date: Mon, 01 Nov 2010 20:14:10 GMT
 Call-ID: 380ce480-ccf11ef6-22-cd4e590a@10.89.78.205
 CSeq: 102 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**12.2 Sip Trunk Call Preservation when "Cisco Unified CM" is the "Non-Refresher"**

Title: Sip Trunk Call Preservation when "Cisco Unified CM" is the "Non-Refresher"

Description:

Cisco Unified IP Phone---Cisco Unified CM--siptrunk---RemoteUA

The scenario for Sip Trunk Call Preservation when "Cisco Unified CM" is the "Non-Refresher" for the

Session Timers and session refresh failure condition occurs.

The Cisco Unified CM's Sip Trunk detects that session refresh isn't received in the negotiated duration, it would be due to either RemoteUA being shutdown or network failure on some segment for

the signaling path to RemoteUA. For best effort handling of this failure condition the Cisco Unified CM assumes later i.e it could be due to network failure on signaling path.

The signaling and media channel between calling & called party may not necessarily be established through the same network. So Cisco Unified CM makes an assumption that media path

between RemoteUA and Cisco Unified IP Phone may still be active, and it shouldn't be interrupted.

Thus SIP Trunk on Cisco Unified CM takes an action to preserve the call towards the call control

side (i.e Cisco Unified IP Phone side). This results in Cisco Unified IP Phone maintaining the media for an active call, and results in having the softkeys disabled so that feature requests may

not be performed. Also "TEMP FAIL" is displayed on the Cisco Unified IP Phone.

Also the SIP Trunk sends a BYE on the sip dialog with remoteUA, so that any intermediate Call stateful Proxy servers can clear the state info for the clearing dialog. The 200 OK for BYE may not

be received as network to remoteUA already got disconnected. Then sip trunk call instance clears

itself as signaling connection was already disconnected.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

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Node = RemoteUA, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between RemoteUA & Unified CM2 has route pattern 2.XXXX

"Cisco Unified CM1" (Min-SE 60, SE 90)

"Cisco Unified CM2" (Min-SE 120, SE 230)

Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Shutdown CM2

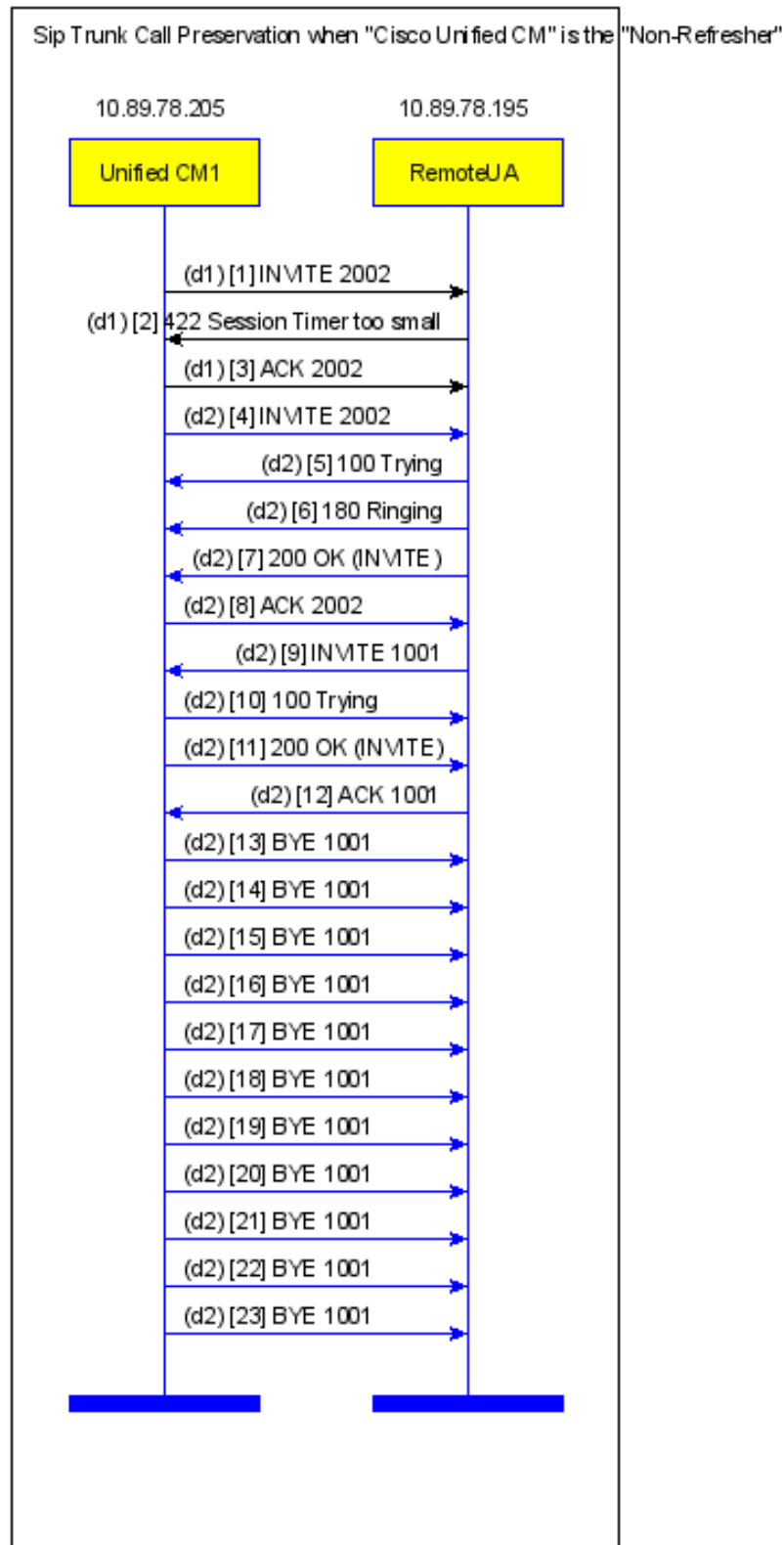
Phone A and Phone B talk for 2 and half minutes

Inbetween, RemoteUA fails to send re-Invite for session-refresh.

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK431eeba63
 From: <sip:1001@10.89.78.205>;tag=5~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>
 Date: Tue, 16 Nov 2010 22:52:11 GMT
 Call-ID: 2458a500-ce310b1b-3-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 60
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0609789184-0000065536-0000000003-3444463882
 Session-Expires: 90
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 422 Session Timer too small**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK431eeba63
 From: <sip:1001@10.89.78.205>;tag=5~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=1770580913
 Date: Tue, 16 Nov 2010 22:52:11 GMT
 Call-ID: 2458a500-ce310b1b-3-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Min-SE: 120
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] ACK sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK431eeba63
 From: <sip:1001@10.89.78.205>;tag=5~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=1770580913
 Date: Tue, 16 Nov 2010 22:52:11 GMT
 Call-ID: 2458a500-ce310b1b-3-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK55c0f770
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>
 Date: Tue, 16 Nov 2010 22:52:11 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0609789184-0000065536-0000000004-3444463882
 Session-Expires: 120
 Min-SE: 120
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK55c0f770
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>
 Date: Tue, 16 Nov 2010 22:52:11 GMT

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Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK55c0f770
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:52:11 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK55c0f770
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:52:11 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 120;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 19572 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] ACK sip:2002@10.89.78.195:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK642bb0463
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:52:11 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 25978 RTP/AVP 9 101
 a=rtpmap:9 G722/8000

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```
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[9] INVITE sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK1740211303
From: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
To: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
Date: Tue, 16 Nov 2010 22:53:12 GMT
Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 0609789184-0000065536-0000000004-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 321
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 19572 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[10] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK1740211303
From: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
To: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
Date: Tue, 16 Nov 2010 22:53:12 GMT
Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[11] SIP/2.0 200 OK
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK1740211303
From: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
To: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
Date: Tue, 16 Nov 2010 22:53:12 GMT
Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
Require: timer
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060>
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
```

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s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 25978 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] ACK sip:1001@10.89.78.205:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK186684a75a
 From: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 To: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] BYE sip:1001@10.89.78.195:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] BYE sip:1001@10.89.78.195:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] BYE sip:1001@10.89.78.195:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] BYE sip:1001@10.89.78.195:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] BYE sip:1001@10.89.78.195:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb

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From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[18] BYE sip:1001@10.89.78.195:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[19] BYE sip:1001@10.89.78.195:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[20] BYE sip:1001@10.89.78.195:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[21] BYE sip:1001@10.89.78.195:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[22] BYE sip:1001@10.89.78.195:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
 From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
 To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
 Date: Tue, 16 Nov 2010 22:53:12 GMT
 Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 102 BYE
 Reason: Q.850;cause=41
 Content-Length: 0

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[diagram] Call-ID: [prev][next]
[23] BYE sip:1001@10.89.78.195:5060 SIP/2.0
Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK736c73fcb
From: <sip:1001@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-25959416
To: <sip:2002@10.89.78.195>;tag=72~e811c00a-4a66-4296-a800-0718da03b731-25950815
Date: Tue, 16 Nov 2010 22:53:12 GMT
Call-ID: 2458a500-ce310b1b-4-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 102 BYE
Reason: Q.850;cause=41
Content-Length: 0

CISCO CONFIDENTIAL**12.3 Sip Trunk Call Preservation when "Cisco Unified CM" is the "Refresher"**

Title: Sip Trunk Call Preservation when "Cisco Unified CM" is the "Refresher"

Description:

RemoteUA--siptrunk--Cisco Unified CM2---Cisco Unified IP Phone

The scenario for Sip Trunk Call Preservation when "Cisco Unified CM" is the "Refresher" for the Session Timers and session refresh failure condition occurs.

The Cisco Unified CM's Sip Trunk tries to send the re-Invite for Session Refresh (retry times) and when no response is received back, it would be due to either RemoteUA being shutdown or network failure on some segment for the signaling path to RemoteUA. For best effort handling of this failure condition the Cisco Unified CM assumes later i.e it could be due to network failure on signaling path.

The signaling and media channel between calling & called party may not necessarily be established

through the same network. So Cisco Unified CM makes an assumption that media path between

RemoteUA and Cisco Unified IP Phone may still be active, and it should not be interrupted until hangup from Cisco Unified IP Phone.

Thus SIP Trunk on Cisco Unified CM takes an action to preserve the call towards the call control side (i.e Cisco Unified IP Phone side).

This results in Cisco Unified IP Phone maintaining the media for an active call, and results in having the softkeys disabled so that feature requests may not be performed. Also "TEMP FAIL" is displayed on the Cisco Unified IP Phone.

Also the SIP Trunk sends a BYE on the sip dialog with remoteUA, so that any intermediate Call stateful Proxy servers can clear the state info for the clearing dialog. The 200 OK for BYE may not be received as network to remoteUA already got disconnected. Then sip trunk call instance clears itself as signaling connection was already disconnected.

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Configuration:

Node = RemoteUA, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between RemoteUA & Unified CM2 has route pattern 2.XXXX

"Cisco Unified CM1" (Min-SE 60, SE 90)

"Cisco Unified CM2" (Min-SE 120, SE 230)

Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Shutdown the CM1

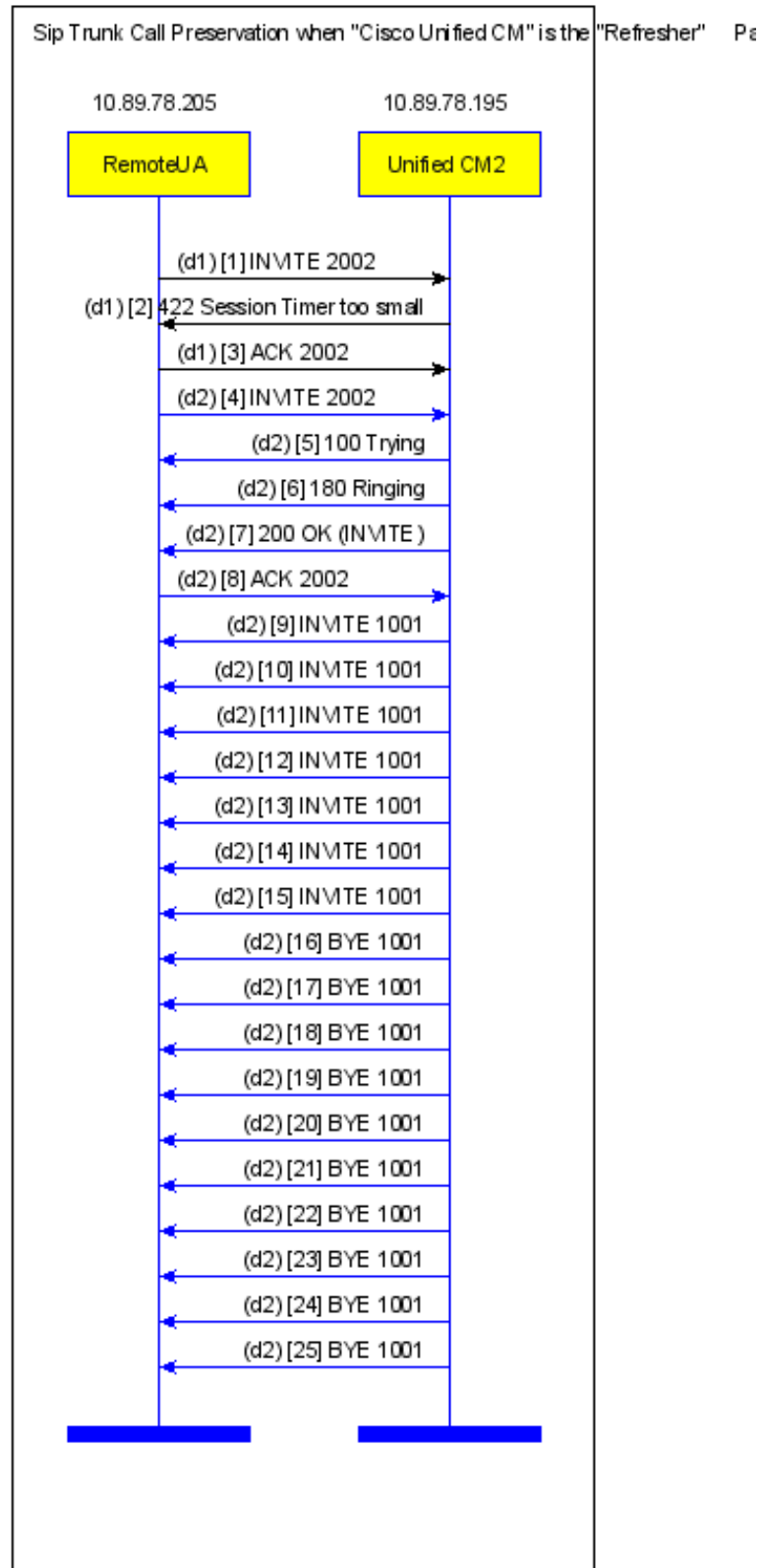
Phone A and Phone B talk for 2 and half minutes

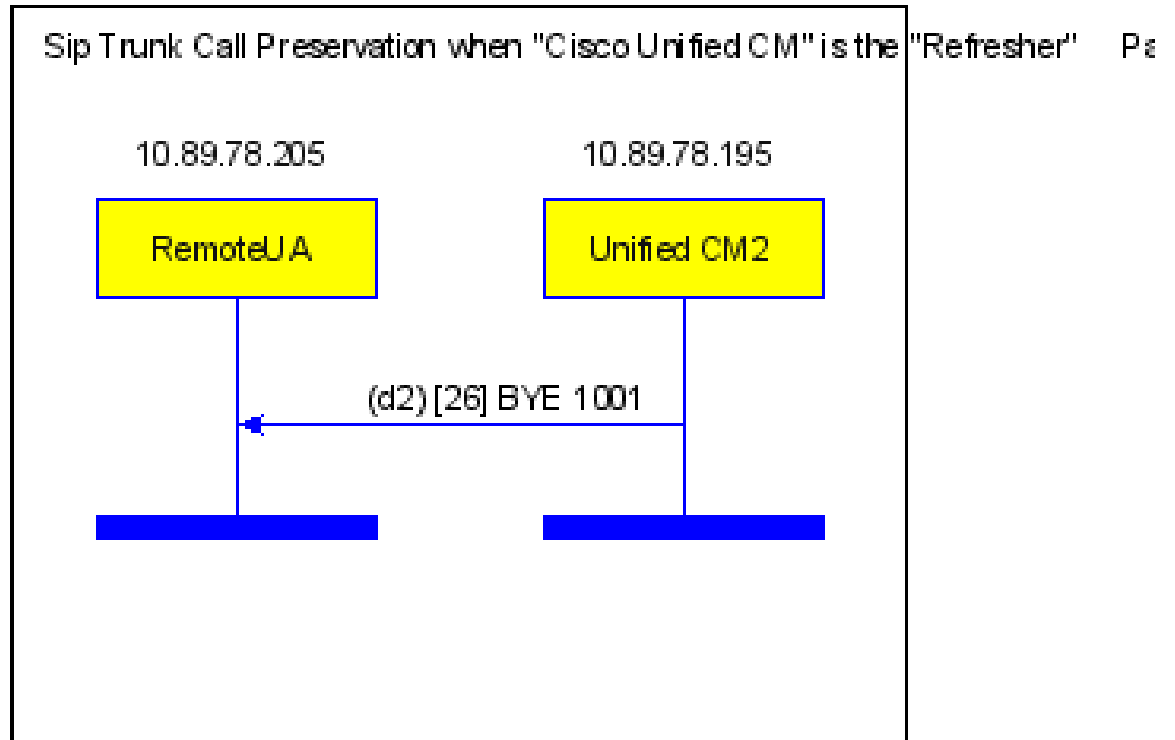
Inbetween, RemoteUA fails to respond to Unified CM2's re-Invite for session-refresh

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK86373a1cb
 From: <sip:1001@10.89.78.205>;tag=8-1ebcd687-60ae-450a-823c-0469b2740097-25959418
 To: <sip:2002@10.89.78.195>
 Date: Tue, 16 Nov 2010 23:10:42 GMT
 Call-ID: ba8dca80-ce310f72-5-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 60
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3129854592-0000065536-0000000005-3444463882
 Session-Expires: 90
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 422 Session Timer too small**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK86373a1cb
 From: <sip:1001@10.89.78.205>;tag=8-1ebcd687-60ae-450a-823c-0469b2740097-25959418
 To: <sip:2002@10.89.78.195>;tag=260051819
 Date: Tue, 16 Nov 2010 23:10:42 GMT
 Call-ID: ba8dca80-ce310f72-5-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Min-SE: 120
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] ACK sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK86373a1cb
 From: <sip:1001@10.89.78.205>;tag=8-1ebcd687-60ae-450a-823c-0469b2740097-25959418
 To: <sip:2002@10.89.78.195>;tag=260051819
 Date: Tue, 16 Nov 2010 23:10:42 GMT
 Call-ID: ba8dca80-ce310f72-5-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK93af46ecc
 From: <sip:1001@10.89.78.205>;tag=9-1ebcd687-60ae-450a-823c-0469b2740097-25959418
 To: <sip:2002@10.89.78.195>
 Date: Tue, 16 Nov 2010 23:10:42 GMT
 Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3129854592-0000065536-0000000006-3444463882
 Session-Expires: 120
 Min-SE: 120
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK93af46ecc
 From: <sip:1001@10.89.78.205>;tag=9-1ebcd687-60ae-450a-823c-0469b2740097-25959418
 To: <sip:2002@10.89.78.195>
 Date: Tue, 16 Nov 2010 23:10:42 GMT

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Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK93af46ecc
 From: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
 To: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
 Date: Tue, 16 Nov 2010 23:10:42 GMT
 Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bK93af46ecc
 From: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
 To: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
 Date: Tue, 16 Nov 2010 23:10:42 GMT
 Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 120;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 32338 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] ACK sip:2002@10.89.78.195:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa35de038e
 From: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
 To: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
 Date: Tue, 16 Nov 2010 23:10:42 GMT
 Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 22364 RTP/AVP 9 101
 a=rtpmap:9 G722/8000

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```
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[9] INVITE sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK3710a8b37
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:11:43 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 3129854592-0000065536-0000000006-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 321
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 32338 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[10] INVITE sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK3710a8b37
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:11:44 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 3129854592-0000065536-0000000006-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 321
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 32338 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
```

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```

a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

```

[11] INVITE sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK3710a8b37
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:11:45 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 3129854592-0000065536-0000000006-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 321

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 32338 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

```

[12] INVITE sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK3710a8b37
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:11:47 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 3129854592-0000065536-0000000006-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 321

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0

```

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```
m=audio 32338 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] INVITE sip:1001@10.89.78.205:5060 SIP/2.0

```
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK3710a8b37
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:11:51 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 3129854592-0000065536-0000000006-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 321
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 32338 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] INVITE sip:1001@10.89.78.205:5060 SIP/2.0

```
Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK3710a8b37
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:11:59 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 3129854592-0000065536-0000000006-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 321
```

```
v=0
```

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```

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 32338 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] INVITE sip:1001@10.89.78.205:5060 SIP/2.0

```

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK3710a8b37
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 120
Cisco-Guid: 3129854592-0000065536-0000000006-3444463882
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 120;refresher=uac
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.195:5060>
Content-Type: application/sdp
Content-Length: 321

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 32338 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] BYE sip:1001@10.89.78.205:5060 SIP/2.0

```

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Reason: Q.850;cause=86
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] BYE sip:1001@10.89.78.205:5060 SIP/2.0

```

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70

```

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CSeq: 102 BYE
Reason: Q.850;cause=86
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] BYE sip:1001@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Reason: Q.850;cause=86
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] BYE sip:1001@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Reason: Q.850;cause=86
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] BYE sip:1001@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Reason: Q.850;cause=86
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] BYE sip:1001@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Reason: Q.850;cause=86
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] BYE sip:1001@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Reason: Q.850;cause=86
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] BYE sip:1001@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0
From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149
To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418
Date: Tue, 16 Nov 2010 23:12:15 GMT
Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Reason: Q.850;cause=86

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[24] BYE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0

From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149

To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418

Date: Tue, 16 Nov 2010 23:12:15 GMT

Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

CSeq: 102 BYE

Reason: Q.850;cause=86

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[25] BYE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0

From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149

To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418

Date: Tue, 16 Nov 2010 23:12:15 GMT

Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

CSeq: 102 BYE

Reason: Q.850;cause=86

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[26] BYE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.195:5060;branch=z9hG4bK4286a44b0

From: <sip:2002@10.89.78.195>;tag=12~e811c00a-4a66-4296-a800-0718da03b731-25967149

To: <sip:1001@10.89.78.205>;tag=9~1ebcd687-60ae-450a-823c-0469b2740097-25959418

Date: Tue, 16 Nov 2010 23:12:15 GMT

Call-ID: ba8dca80-ce310f72-6-cd4e590a@10.89.78.205

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

CSeq: 102 BYE

Reason: Q.850;cause=86

Content-Length: 0

CISCO CONFIDENTIAL**13. 3xx****13.1 Incoming 3xx Redirection**

Title: Incoming 3xx Redirection

Description:

Cisco Unified CM SIP trunk processes the incoming 3xx response by sending out new INVITE specified in the contact headers of the 3xx response.

Cisco Unified IP SCCP phone 6303 dials SIP Proxy phone 6302.

SIP Proxy is in redirect mode, and therefore sends a 302 to the Cisco Unified CM.

Cisco Unified CM processes the 3xx response and sends an INVITE to the contact address in the 3xx.

Configuration:

Node = Unified CM1, IP = 10.89.63.60

Node = SIP Proxy, IP = 10.89.77.5

Phone = A, Line = 6303, IP = 10.13.5.214, Model = SCCP

Phone = B, Line = 6302, IP = 10.88.58.157, Model = SIP

SIP Trunk on Unified CM1 pointing to the SIP Proxy with route pattern 4.XXXX

Scenario:

Phone A DN 6303 calls Phone B DN 6302 over the SIP Trunk by dialing 46302

Phone B DN 6302 is ringing

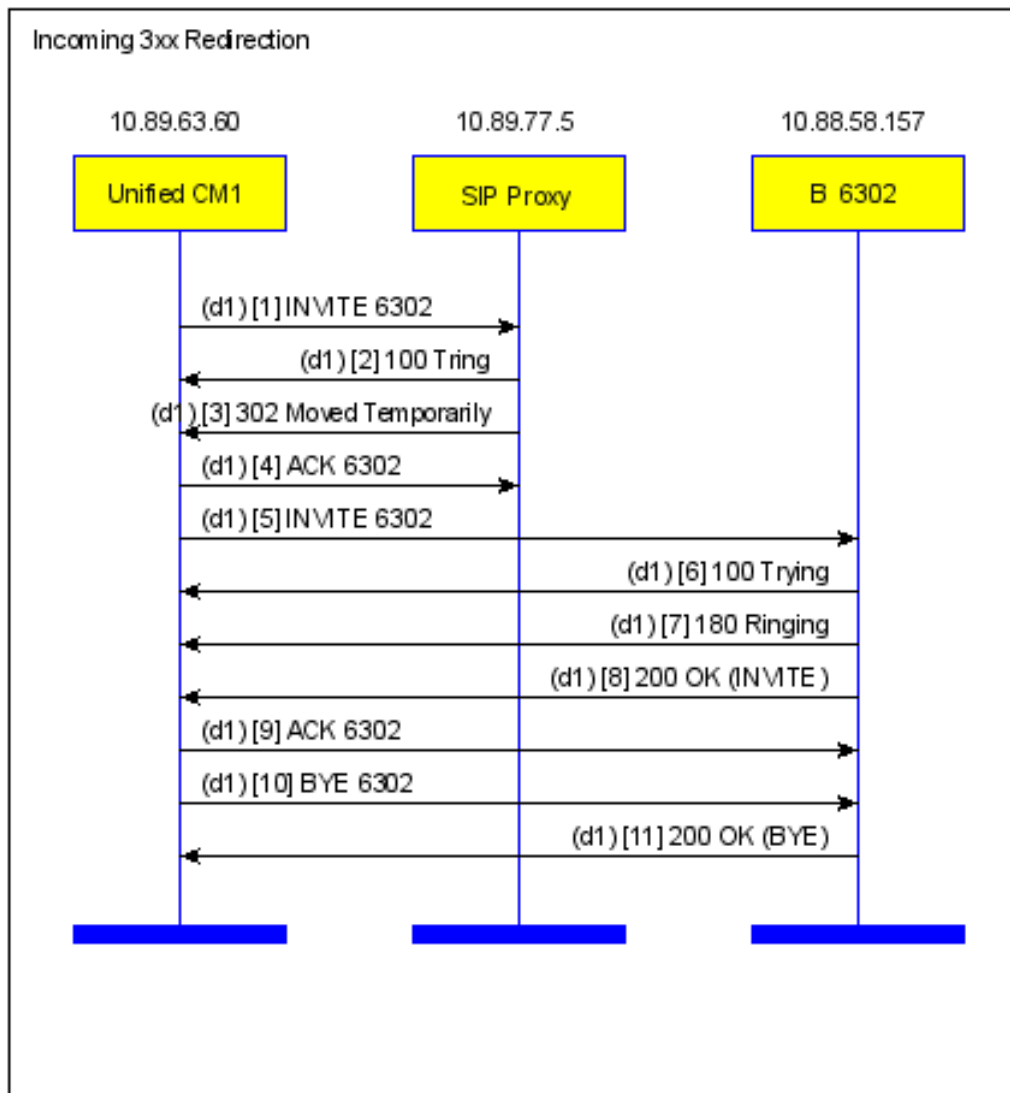
Phone B DN 6302 Answers

Phone A DN 6303 and Phone B DN 6302 have two-way speech

Phone A DN 6303 goes onHook

Phone B DN 6302 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:6302@10.89.77.5:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.63.60:5060;branch=z9hG4bK304107a511
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>
 Date: Mon, 06 Dec 2010 19:06:06 GMT
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.63.60:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3745310848-0000065536-0000000015-1010784522
 Session-Expires: 1800
 P-Asserted-Identity: <sip:6303@10.89.63.60>
 Remote-Party-ID: <sip:6303@10.89.63.60>;party=calling;screen=yes;privacy=off
 Contact: <sip:6303@10.89.63.60:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Tring**

Via: SIP/2.0/TCP 10.89.63.60:5060;branch=z9hG4bK304107a511
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>;tag=19356SIPpTag011
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 CSeq: 101 INVITE
 Contact: <sip:10.89.77.5:5060;transport=TCP>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 302 Moved Temporarily**

Via: SIP/2.0/TCP 10.89.63.60:5060;branch=z9hG4bK304107a511
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>;tag=19356SIPpTag011
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 CSeq: 101 INVITE
 Contact: <sip:6302@10.88.58.157:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] ACK sip:6302@10.89.77.5:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.63.60:5060;branch=z9hG4bK304107a511
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>;tag=19356SIPpTag011
 Date: Mon, 06 Dec 2010 19:06:06 GMT
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] INVITE sip:6302@10.88.58.157:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.63.60:5060;branch=z9hG4bK317a0e61cf
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>
 Date: Mon, 06 Dec 2010 19:06:06 GMT
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.63.60:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3745310848-0000065536-0000000015-1010784522
 Session-Expires: 1800
 P-Asserted-Identity: <sip:6303@10.89.63.60>
 Remote-Party-ID: <sip:6303@10.89.63.60>;party=calling;screen=yes;privacy=off
 Contact: <sip:6303@10.89.63.60:5060;transport=tcp>
 Max-Forwards: 70

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[6] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 10.89.63.60:5060;branch=z9hG4bK317a0e61cf
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 CSeq: 102 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:6302@10.88.58.157:5060;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[7] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 10.89.63.60:5060;branch=z9hG4bK317a0e61cf
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>;tag=0003e30cd2f5002c7f435d87-00937534
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 CSeq: 102 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:6302@10.88.58.157:5060;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Remote-Party-ID: "6302" <sip:6302@rcdn6-vm63-60>;party=called;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[8] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.89.63.60:5060;branch=z9hG4bK317a0e61cf
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>;tag=0003e30cd2f5002c7f435d87-00937534
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 CSeq: 102 INVITE
 Server: Cisco-CP7960G/8.0
 Contact: <sip:6302@10.88.58.157:5060;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Remote-Party-ID: "6302" <sip:6302@rcdn6-vm63-60>;party=called;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 275
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 1820 0 IN IP4 10.88.58.157
 s=SIP Call
 t=0 0
 m=audio 19388 RTP/AVP 0 8 18 101
 c=IN IP4 10.88.58.157
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[9] ACK sip:6302@10.88.58.157:5060;transport=udp SIP/2.0**

Via: SIP/2.0/UDP 10.89.63.60:5060;branch=z9hG4bK322c2e79d6
 From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269
 To: <sip:6302@10.89.77.5>;tag=0003e30cd2f5002c7f435d87-00937534
 Date: Mon, 06 Dec 2010 19:06:06 GMT
 Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 210

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.63.60
 s=SIP Call
 c=IN IP4 10.13.5.214
 t=0 0
 m=audio 24804 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[10] BYE sip:6302@10.88.58.157:5060;transport=udp SIP/2.0**

Via: SIP/2.0/UDP 10.89.63.60:5060;branch=z9hG4bK33141c7119

From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269

To: <sip:6302@10.89.77.5>;tag=0003e30cd2f5002c7f435d87-00937534

Date: Mon, 06 Dec 2010 19:06:06 GMT

Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

P-Asserted-Identity: <sip:6303@10.89.63.60>

CSeq: 103 BYE

Reason: Q.850;cause=16

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[11] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.89.63.60:5060;branch=z9hG4bK33141c7119

From: <sip:6303@10.89.63.60>;tag=2229~eb2c55e6-e01a-4916-ae4c-0d73cd251b0d-25189269

To: <sip:6302@10.89.77.5>;tag=0003e30cd2f5002c7f435d87-00937534

Call-ID: df3ce880-cfd1341e-1c-3c3f590a@10.89.63.60

CSeq: 103 BYE

Server: Cisco-CP7960G/8.0

Content-Length: 0

CISCO CONFIDENTIAL**14. Authentication-Authorization****14.1 Unified CM gets Authenticated as UAC**

Title: Unified CM gets Authenticated as UAC

Description:

When Cisco Unified CM is challenged as a UAC, it looks up the user credentials from the given realm and send the new request with Authorization header.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.8.28.121, Model = SCCP

Phone = B, Line = 2002, IP = 10.8.28.253, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Scenario:

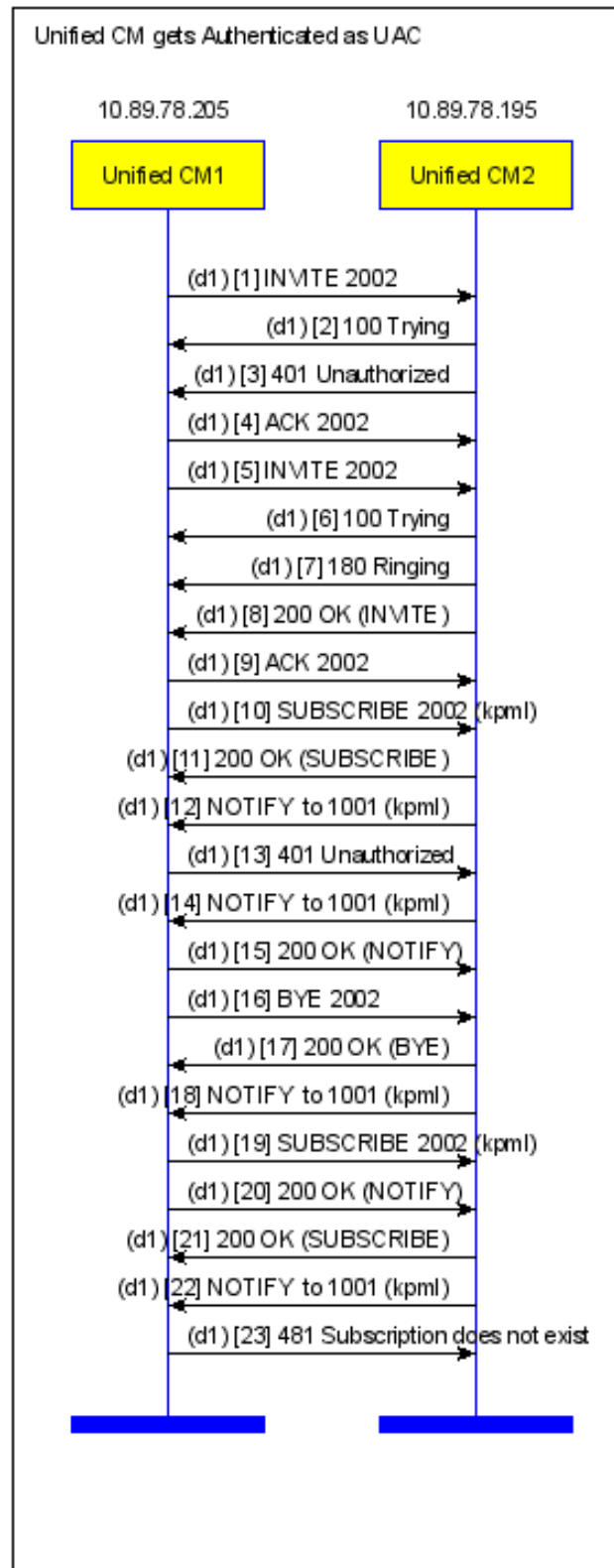
Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B returns 401 Unauthorized response.

Unified CM1 on which PhoneA is present, looks up user credentials and sends out new INVITE with Authorization header. All the subsequent requests from the Unified CM for this dialog will have Authorization header already.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK116ad61320
 From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>
 Date: Wed, 08 Dec 2010 21:56:47 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 0204275456-0000065536-0000000006-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 212

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 24594 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK116ad61320
 From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>
 Date: Wed, 08 Dec 2010 21:56:47 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 401 Unauthorized**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK116ad61320
 From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>;tag=626560564
 Date: Wed, 08 Dec 2010 21:56:47 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 WWW-Authenticate: Digest realm="StandAloneCluster", nonce="RA7CdPKELQXR6c0ITtyElFlhpZpX4SmV", algorithm=MD5
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] ACK sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK116ad61320
 From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>;tag=626560564
 Date: Wed, 08 Dec 2010 21:56:47 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1253c62068
 From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>
 Date: Wed, 08 Dec 2010 21:56:47 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800

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User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:2002@10.89.78.195:5060", response="56267276d4892681b61a7e4346328eed", nonce="RA7CdPKELQXR6c0ITtyElFlhpZpX4SmV", algorithm=MD5
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 0204275456-0000065536-0000000006-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 212

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 24594 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1253c62068
 From: <sip:1001@10.89.78.205>;tag=16-1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>
 Date: Wed, 08 Dec 2010 21:56:48 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1253c62068
 From: <sip:1001@10.89.78.205>;tag=16-1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>;tag=23-e811c00a-4a66-4296-a800-0718da03b731-33547413
 Date: Wed, 08 Dec 2010 21:56:48 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1253c62068
 From: <sip:1001@10.89.78.205>;tag=16-1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>;tag=23-e811c00a-4a66-4296-a800-0718da03b731-33547413
 Date: Wed, 08 Dec 2010 21:56:48 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 211

v=0

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```

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.8.28.253
t=0 0
m=audio 21140 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[9] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK134272f671
From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
To: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
Date: Wed, 08 Dec 2010 21:56:47 GMT
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 102 ACK
Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:2002@10.89.78.195:5060", response="56267276d4892681b61a7e4346328eed", nonce="RA7CdPKELQXR6c0ITtyElFlhpZpX4SmV", algorithm=MD5
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[10] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1477056fd1
From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
To: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
CSeq: 103 SUBSCRIBE
Date: Wed, 08 Dec 2010 21:56:49 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.205:5060;transport=tcp>
P-Asserted-Identity: <sip:1001@10.89.78.205>
Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:2002@10.89.78.195:5060;transport=tcp", response="fadacba3c736b12039c dbabb0ba8e3e0", nonce="RA7CdPKELQXR6c0ITtyElFlhpZpX4SmV", algorithm=MD5
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

```

```

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

```

```

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>

```

```

</kpml-request>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[11] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1477056fd1
From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
To: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
Date: Wed, 08 Dec 2010 21:56:49 GMT
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
CSeq: 103 SUBSCRIBE
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Expires: 7200
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[12] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1038b77cf4
From: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
To: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
CSeq: 101 NOTIFY
Max-Forwards: 70
Date: Wed, 08 Dec 2010 21:56:49 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200

```


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Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 401 Unauthorized

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1038b77cf4
From: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
To: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
Date: Wed, 08 Dec 2010 21:56:49 GMT
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
CSeq: 101 NOTIFY
WWW-Authenticate: Digest realm="StandAloneCluster", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILa", algorithm=MD5
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK113210c47c
From: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
To: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
Max-Forwards: 70
Date: Wed, 08 Dec 2010 21:56:49 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Length: 0
Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:10.89.78.205:5060;transport=tcp", response="5eb733db21c1a475708ce65d0592871f", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILa", algorithm=MD5
CSeq: 102 NOTIFY

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK113210c47c
From: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
To: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
Date: Wed, 08 Dec 2010 21:56:49 GMT
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
CSeq: 102 NOTIFY
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK155414d4bb
From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
To: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
Date: Wed, 08 Dec 2010 21:56:47 GMT
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 104 BYE
Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:2002@10.89.78.195:5060;transport=tcp", response="d4c7c763bc5b09a06b7cbde7f7019020", nonce="RA7CdPKELQXR6c0ITtyElFlhpZpX4SmV", algorithm=MD5
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK155414d4bb
From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
To: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
Date: Wed, 08 Dec 2010 21:57:17 GMT
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
CSeq: 104 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK127a2f4bbc
From: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
To: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
CSeq: 103 NOTIFY
Max-Forwards: 70
Date: Wed, 08 Dec 2010 21:57:17 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: terminated

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Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:10.89.78.205:5060;transport=tcp", response="5eb733db21c1a475708ce65d0592871f", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILA", algorithm=MD5
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[19] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK16a6ddb88
 From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 105 SUBSCRIBE
 Date: Wed, 08 Dec 2010 21:57:17 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:2002@10.89.78.195:5060;transport=tcp", response="fadacba3c736b12039c dbabb0ba8e3e0", nonce="RA7CdPKELQXR6c0ITtyElFhpZpX4SmV", algorithm=MD5
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[20] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK127a2f4bbc
 From: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
 To: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 Date: Wed, 08 Dec 2010 21:57:17 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[21] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK16a6ddb88
 From: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 To: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
 Date: Wed, 08 Dec 2010 21:57:17 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 105 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[22] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK135b8a8eba
 From: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
 To: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 104 NOTIFY
 Max-Forwards: 70
 Date: Wed, 08 Dec 2010 21:57:17 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:10.89.78.205:5060;transport=tcp", response="5eb733db21c1a475708ce65d0592871f", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILA", algorithm=MD5
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[23] SIP/2.0 481 Subscription does not exist
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK135b8a8eba
 From: <sip:2002@10.89.78.195>;tag=23~e811c00a-4a66-4296-a800-0718da03b731-33547413
 To: <sip:1001@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-32848674
 Date: Wed, 08 Dec 2010 21:57:17 GMT
 Call-ID: c2cff00-cff1ff1f-5-cd4e590a@10.89.78.205
 CSeq: 104 NOTIFY
 Content-Length: 0

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Title: Unified CM Authenticates Incoming Request

Description:

When a SIP trunk receives an incoming request, if authentication is enabled for this trunk, Cisco Unified CM will check the credential of the incoming request.

Unified CM will return 401 if authentication fails or the request doesn't have the Authorization header. If authorization is enabled for this trunk and authentication passes, Unified CM will also check the privileges against the username. Unified CM will return 403 if authorization fails.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.8.28.121, Model = SCCP

Phone = B, Line = 2002, IP = 10.8.28.253, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has route pattern 1.XXXX

Scenario:

Phone B DN 2002 calls Phone A DN 1001 over the SIP Trunk by dialing 11001

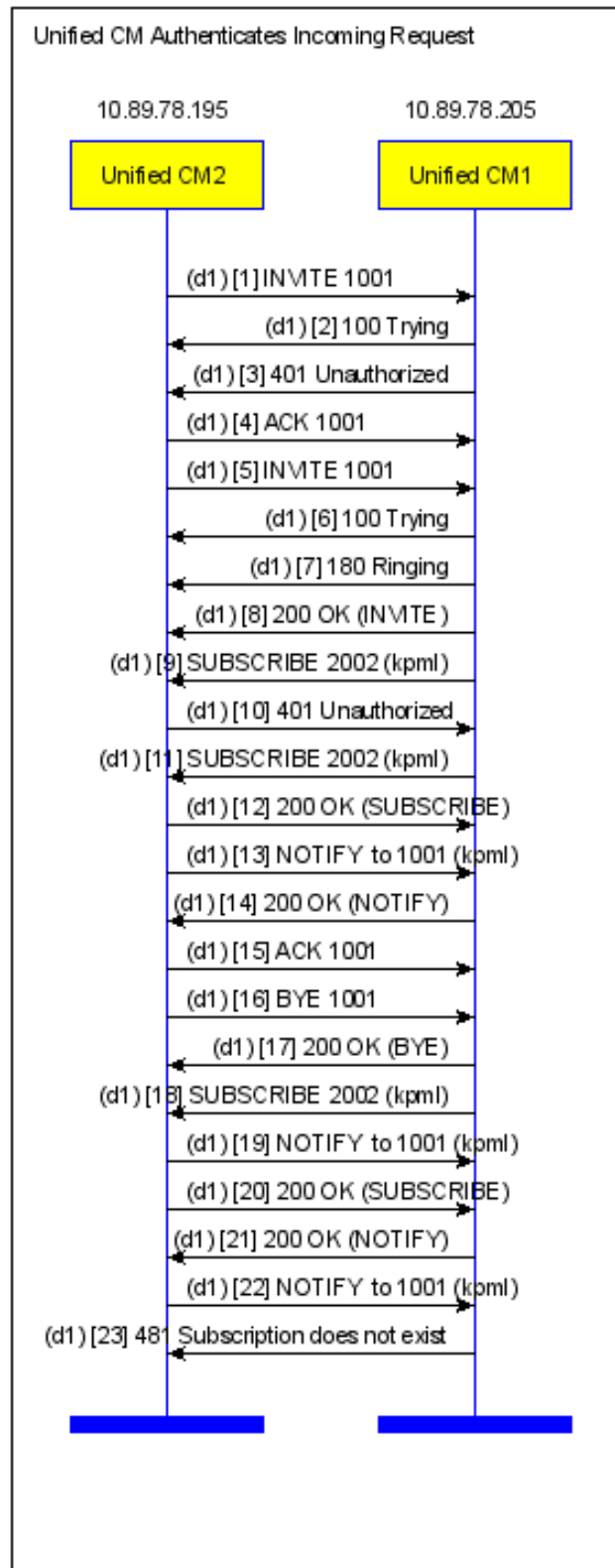
Phone A's CCM Unified CM1 sends back 401 Unauthorized response since the INVITE doesn't have the Authorization header.

Unified CM2 on which PhoneB is present, looks up user credentials and sends out new INVITE with Authorization header.

Unified CM1 checks the Authorization header with its configured user credentials, Authentication passes, call moves on.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) [Call-ID:\[prev\]](#)[\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK94a1165ec
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>
 Date: Wed, 08 Dec 2010 21:53:02 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2249242752-0000065536-0000000002-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) [Call-ID:\[prev\]](#)[\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK94a1165ec
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>
 Date: Wed, 08 Dec 2010 21:53:02 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) [Call-ID:\[prev\]](#)[\[next\]](#)**[3] SIP/2.0 401 Unauthorized**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK94a1165ec
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=1598454015
 Date: Wed, 08 Dec 2010 21:53:02 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 WWW-Authenticate: Digest realm="StandAloneCluster", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILA", algorithm=MD5
 Content-Length: 0

[\[diagram\]](#) [Call-ID:\[prev\]](#)[\[next\]](#)**[4] ACK sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK94a1165ec
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=1598454015
 Date: Wed, 08 Dec 2010 21:53:02 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) [Call-ID:\[prev\]](#)[\[next\]](#)**[5] INVITE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa3bd0970
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>
 Date: Wed, 08 Dec 2010 21:53:02 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:1001@10.89.78.205:5060", response="f4015072f51f1e037cb5bca0e978ec40", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILA", algorithm=MD5
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

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Cisco-Guid: 2249242752-0000065536-0000000002-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa3bd0970
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>
 Date: Wed, 08 Dec 2010 21:53:03 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 102 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa3bd0970
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Date: Wed, 08 Dec 2010 21:53:03 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa3bd0970
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Date: Wed, 08 Dec 2010 21:53:03 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 248

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 24590 RTP/AVP 0 8 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe29f72ad2
 From: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 To: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 101 SUBSCRIBE
 Date: Wed, 08 Dec 2010 21:53:04 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml

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Expires: 7200
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 401 Unauthorized

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe29f72ad2
 From: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 To: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 Date: Wed, 08 Dec 2010 21:53:04 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 101 SUBSCRIBE
 WWW-Authenticate: Digest realm="StandAloneCluster", nonce="RA7CdPKELQXR6c0ITtyElFlhpZpX4SmV", algorithm=MD5
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf554960f5
 From: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 To: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 Date: Wed, 08 Dec 2010 21:53:04 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:2002@10.89.78.195:5060;transport=tcp", response="fadacba3c736b12039c
 dbabb0ba8e3e0", nonce="RA7CdPKELQXR6c0ITtyElFlhpZpX4SmV", algorithm=MD5
 CSeq: 102 SUBSCRIBE

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf554960f5
 From: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 To: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 Date: Wed, 08 Dec 2010 21:53:04 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 102 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb763d249d
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Wed, 08 Dec 2010 21:53:04 GMT
 User-Agent: Cisco-CUCM8.5

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Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:10.89.78.205:5060;transport=tcp", response="5eb733db21c1a475708ce65d0592871f", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILA", algorithm=MD5
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb763d249d
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Date: Wed, 08 Dec 2010 21:53:04 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 103 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[15] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc1ae1d1ec
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Date: Wed, 08 Dec 2010 21:53:02 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 102 ACK
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:1001@10.89.78.205:5060", response="f4015072f51f1e037cb5bca0e978ec40", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILA", algorithm=MD5
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.253
 t=0 0
 m=audio 31482 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[16] BYE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKd2462a737
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Date: Wed, 08 Dec 2010 21:53:02 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 CSeq: 104 BYE
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:1001@10.89.78.205:5060;transport=tcp", response="7ff6750594c36aa69e27d644cde1fd81", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI80WqILA", algorithm=MD5
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[17] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKd2462a737
 From: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Date: Wed, 08 Dec 2010 21:53:29 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 104 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[18] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK106dcd065c
 From: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
 To: <sip:2002@10.89.78.195>;tag=18~e811c00a-4a66-4296-a800-0718da03b731-33547412
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 103 SUBSCRIBE
 Date: Wed, 08 Dec 2010 21:53:29 GMT

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User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:2002@10.89.78.195:5060;transport=tcp", response="fadacba3c736b12039c
 dbabb0ba8e3e0", nonce="RA7CdPKELQXR6c0ITtyElFlhpZpX4SmV", algorithm=MD5
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKe47b63163
 From: <sip:2002@10.89.78.195>;tag=18-e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14-1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 105 NOTIFY
 Max-Forwards: 70
 Date: Wed, 08 Dec 2010 21:53:29 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:10.89.78.205:5060;transport=tcp", response="5eb733db21c1a475708ce65d
 0592871f", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI8WqILA", algorithm=MD5
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK106dcd065c
 From: <sip:1001@10.89.78.205>;tag=14-1ebcd687-60ae-450a-823c-0469b2740097-32848670
 To: <sip:2002@10.89.78.195>;tag=18-e811c00a-4a66-4296-a800-0718da03b731-33547412
 Date: Wed, 08 Dec 2010 21:53:29 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 103 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKe47b63163
 From: <sip:2002@10.89.78.195>;tag=18-e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14-1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Date: Wed, 08 Dec 2010 21:53:29 GMT
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 105 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf74202f77
 From: <sip:2002@10.89.78.195>;tag=18-e811c00a-4a66-4296-a800-0718da03b731-33547412
 To: <sip:1001@10.89.78.205>;tag=14-1ebcd687-60ae-450a-823c-0469b2740097-32848670
 Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Wed, 08 Dec 2010 21:53:29 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Authorization: Digest username="auth-user", realm="StandAloneCluster", uri="sip:10.89.78.205:5060;transport=tcp", response="5eb733db21c1a475708ce65d
 0592871f", nonce="ZwJ0+1CCkh5FvbFoDonQ35DFI8WqILA", algorithm=MD5
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] SIP/2.0 481 Subscription does not exist
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf74202f77
 From: <sip:2002@10.89.78.195>;tag=18-e811c00a-4a66-4296-a800-0718da03b731-33547412

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To: <sip:1001@10.89.78.205>;tag=14~1ebcd687-60ae-450a-823c-0469b2740097-32848670
Date: Wed, 08 Dec 2010 21:53:29 GMT
Call-ID: 8610b880-cff1fe3e-2-c34e590a@10.89.78.195
CSeq: 106 NOTIFY
Content-Length: 0

CISCO CONFIDENTIAL**15. ACL****15.1 Access Control List, Deny Presence Subscription**

Title: Access Control List, Deny Presence Subscription

Description:

When a SIP trunk is configured not to allow Subscription with presence, an incoming SUBSCRIBE with presence event to this trunk is rejected with 403 response.

Configuration:

Node = Remote UA , IP = 10.89.77.5

Node = Unified CM1, IP = 10.89.78.205

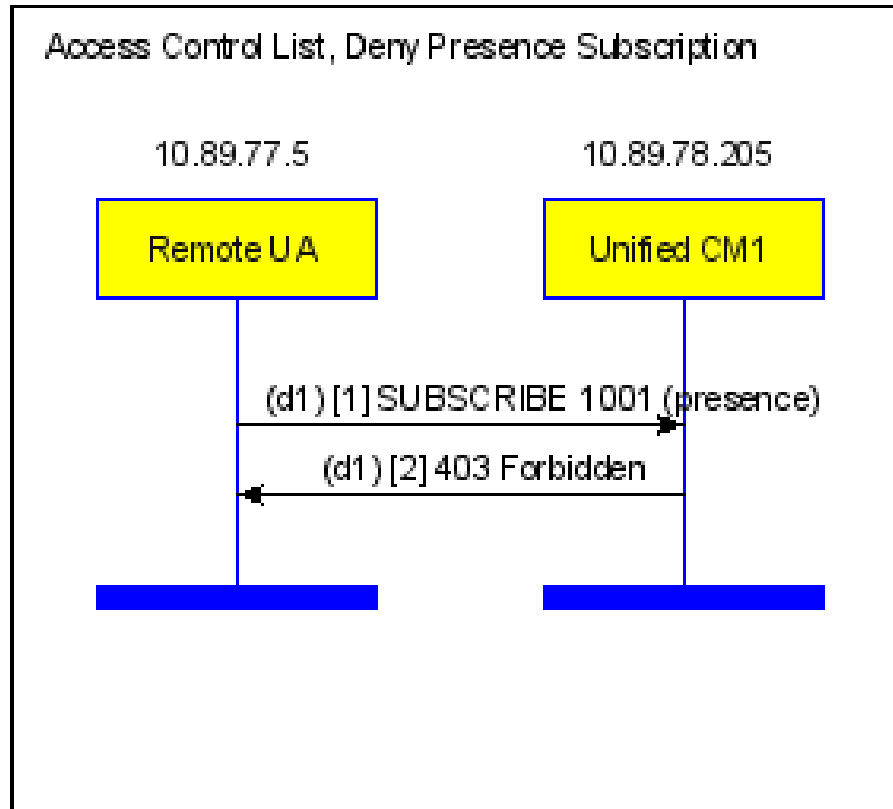
Unified CM1 has its SIP Trunk Security Profile configured to have "Accept Presence Subscription" unchecked.

Scenario:

Remote UA sends Presence Subscription message to Unified CM1

Unified CM1 rejects the message with 403

End of Scenario

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[diagram] Call-ID: [prev][next]
[1] SUBSCRIBE sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.89.77.5:5060
From: <sip:5678@10.89.77.5:5060>;tag=1
To: <sip:1001@10.89.78.205:5060>
Call-ID: 1-11133@10.89.77.5
CSeq: 101 SUBSCRIBE
Event: presence
Accept: application/dialog-info+xml
Expires: 7200
Contact: sip:5678@10.89.77.5:5060
Max-Forwards: 70
Content-Length: 0

[diagram] Call-ID: [prev][next]
[2] SIP/2.0 403 Forbidden
Via: SIP/2.0/TCP 10.89.77.5:5060
From: <sip:5678@10.89.77.5:5060>;tag=1
To: <sip:1001@10.89.78.205:5060>;tag=164229991
Date: Thu, 04 Nov 2010 17:35:32 GMT
Call-ID: 1-11133@10.89.77.5
CSeq: 101 SUBSCRIBE
Content-Length: 0

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15.2 Access Control List, Deny Out of Dialog REFER

Title: Access Control List, Deny Out of Dialog REFER

Description:

When a SIP trunk is configured not to allow out-of-dialog REFER, an incoming OOD REFER to this trunk is rejected with 403 response.

Configuration:

Node = Remote UA , IP = 10.89.77.5

Node = Unified CM1, IP = 10.89.78.205

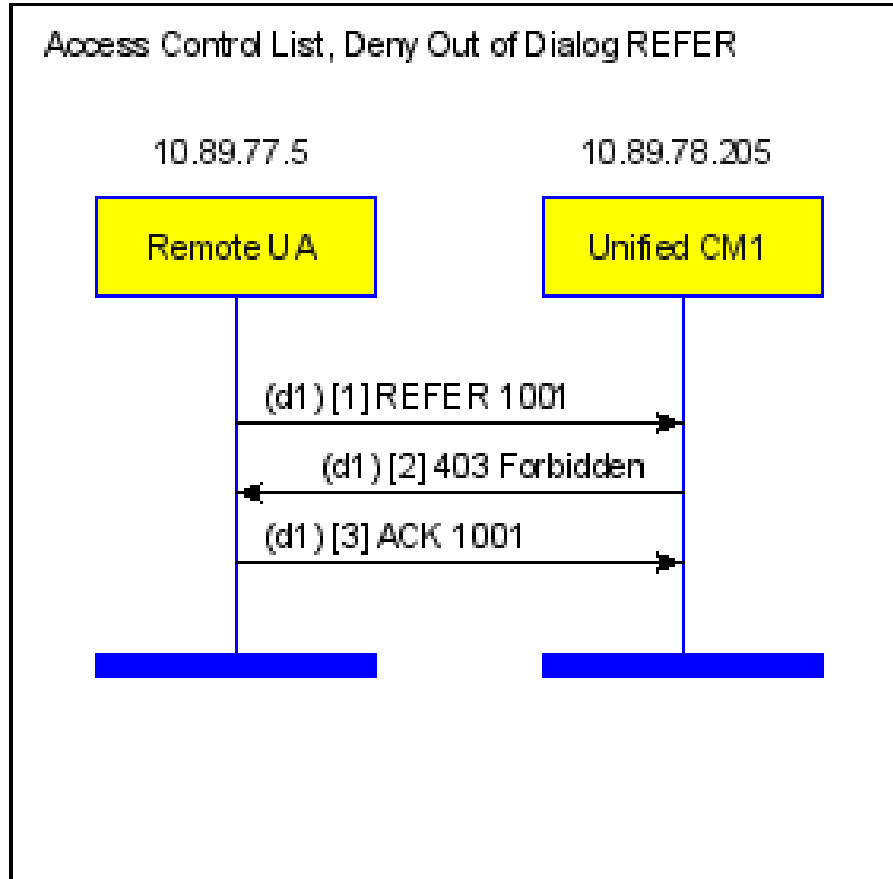
Unified CM1 has its SIP Trunk Security Profile configured to have "Accept Out-of-Dialog REFER" unchecked.

Scenario:

Remote UA sends Out-of-Dialog REFER message to Unified CM1

Unified CM1 rejects the message with 403

End of Scenario

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[diagram] Call-ID: [prev][next]
[1] REFER sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.89.77.5:5060
From: sipp <sip:5678@10.89.77.5:5060>;tag=1
To: <sip:1001@10.89.78.205:5060>
Call-ID: 1-12057@10.89.77.5
Cseq: 103 REFER
Contact: <sip:5678@10.89.77.5:5060>
Refer-To: <sip:1009@10.89.78.205>
Referred-By: <sip:1234@whatever.com>;x-cisco-monitor-call
Max-Forwards: 70
Content-Length: 0

[diagram] Call-ID: [prev][next]
[2] SIP/2.0 403 Forbidden
Via: SIP/2.0/TCP 10.89.77.5:5060
From: sipp <sip:5678@10.89.77.5:5060>;tag=1
To: <sip:1001@10.89.78.205:5060>;tag=580408443
Date: Thu, 04 Nov 2010 17:38:47 GMT
Call-ID: 1-12057@10.89.77.5
CSeq: 103 REFER
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Length: 0

[diagram] Call-ID: [prev][next]
[3] ACK sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.89.77.5:5060
From: sipp <sip:5678@10.89.77.5:5060>;tag=1
To: <sip:1001@10.89.78.205:5060>;tag=580408443
Call-ID: 1-12057@10.89.77.5
CSeq: 104 ACK
Contact: sip:5678@10.89.77.5:5060
Max-Forwards: 70
Content-Length: 0

CISCO CONFIDENTIAL**15.3 Access Control List, Deny Unsolicited NOTIFY**

Title: Access Control List, Deny Unsolicited NOTIFY

Description:

When a SIP trunk is configured not to allow Unsolicited NOTIFY, an incoming Unsolicited NOTIFY(MWI, for example) to this trunk is rejected with 403 response.

Configuration:

Node = Remote UA , IP = 10.89.77.5

Node = Unified CM1, IP = 10.89.78.205

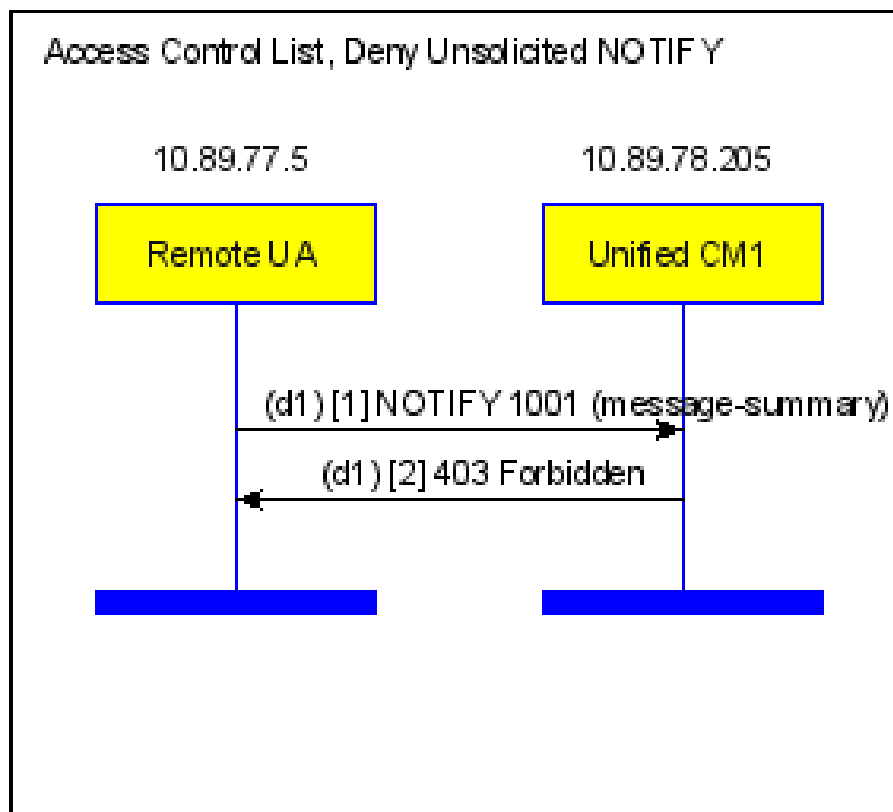
Unified CM1 has its SIP Trunk Security Profile configured to have "Accept Unsolicited Notification" unchecked.

Scenario:

Remote UA sends Unsolicited NOTIFY message to Unified CM1

Unified CM1 rejects the message with 403

End of Scenario

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[diagram] Call-ID: [prev] [next]
[1] NOTIFY sip:1001@10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.89.77.5:5060
From: <sip:5678@10.89.77.5:5060>;tag=1
To: <sip:1001@10.89.78.205:5060>
Call-ID: 1-12491@10.89.77.5
CSeq: 1 NOTIFY
Event: message-summary
Allow: INVITE,ACK,BYE,CANCEL,OPTIONS,REGISTER,INFO,PRACK,SUBSCRIBE,NOTIFY,REFER,UPDATE
Expires: 180
Contact: sip:5678@10.89.77.5:5060
Max-Forwards: 70
Content-Type: text/plain
Content-Length: 23

Messages-Waiting: yes

[diagram] Call-ID: [prev] [next]
[2] SIP/2.0 403 Forbidden
Via: SIP/2.0/TCP 10.89.77.5:5060
From: <sip:5678@10.89.77.5:5060>;tag=1
To: <sip:1001@10.89.78.205:5060>;tag=1624737576
Date: Thu, 04 Nov 2010 17:40:39 GMT
Call-ID: 1-12491@10.89.77.5
CSeq: 1 NOTIFY
Content-Length: 0

CISCO CONFIDENTIAL**15.4 Access Control List, Deny INVITE with Replaces Header**

Title: Access Control List, Deny INVITE with Replaces Header

Description:

When a SIP trunk is configured not to allow Replaces header, an incoming INVITE with Replaces header to this trunk is rejected with 403 response.

Configuration:

Node = Remote UA , IP = 10.89.77.5

Node = Unified CM1, IP = 10.89.78.205

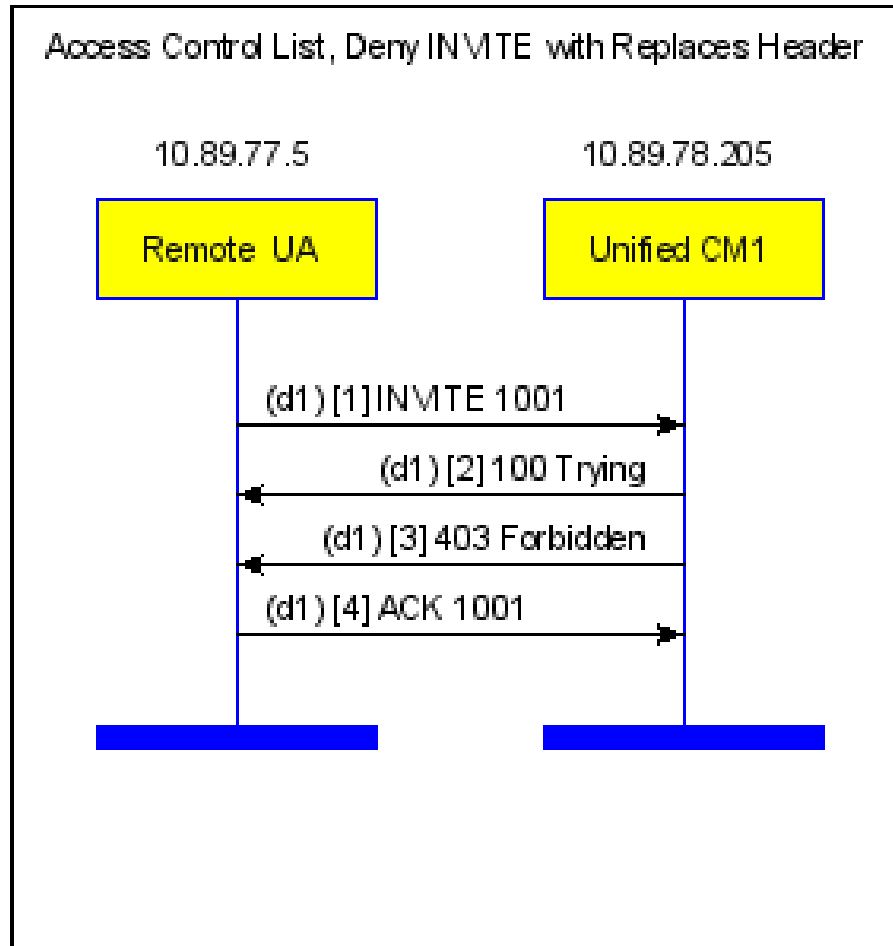
Unified CM1 has its SIP Trunk Security Profile configured to have "Accept Replaces Header" unchecked.

Scenario:

Remote UA sends INVITE with Replaces header message to Unified CM1

Unified CM1 rejects the message with 403

End of Scenario

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[diagram] Call-ID:[prev][next]

[1] INVITE sip:1001@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: <sip:5678@10.89.77.5:5060>;tag=1
 To: <sip:1001@10.89.78.205:5060>
 Call-ID: 1-12938@10.89.77.5
 CSeq: 1 INVITE
 Contact: sip:5678@10.89.77.5:5060
 Max-Forwards: 70
 Subject: Performance Test
 Content-Type: application/sdp
 Replaces: 42592@bobster.example.org;to-tag=7743;from-tag=6472
 Content-Length: 318

v=0
 o=CiscoSystemsCCM-SIP 2000 1000 IN IP4 10.10.193.222
 s=SIP Call
 c=IN IP4 10.10.193.222
 t=0 0
 m=audio 4000 RTP/AVP 2 0 8 18
 a=rtpmap:2 G726-32/8000
 a=ptime:120
 a=rtpmap:0 PCMU/8000
 a=ptime:40
 a=rtpmap:8 PCMA/8000
 a=ptime:40
 a=rtpmap:18 G729/8000
 a=ptime:60
 a=fmtp:18 annexa=yes;annexb=no
 a=sendonly

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: <sip:5678@10.89.77.5:5060>;tag=1
 To: <sip:1001@10.89.78.205:5060>
 Date: Thu, 04 Nov 2010 17:42:25 GMT
 Call-ID: 1-12938@10.89.77.5
 CSeq: 1 INVITE
 Allow-Events: presence
 Content-Length: 0

[diagram] Call-ID:[prev][next]

[3] SIP/2.0 403 Forbidden

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: <sip:5678@10.89.77.5:5060>;tag=1
 To: <sip:1001@10.89.78.205:5060>;tag=669186377
 Date: Thu, 04 Nov 2010 17:42:25 GMT
 Call-ID: 1-12938@10.89.77.5
 CSeq: 1 INVITE
 Allow-Events: presence
 Content-Length: 0

[diagram] Call-ID:[prev][next]

[4] ACK sip:1001@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: <sip:5678@10.89.77.5:5060>;tag=1
 To: <sip:1001@10.89.78.205:5060>;tag=669186377
 Call-ID: 1-12938@10.89.77.5
 CSeq: 1 ACK
 Contact: sip:5678@10.89.77.5:5060
 Max-Forwards: 70
 Subject: Performance Test
 Content-Length: 0

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15.5 Access Control List, Deny REFER with Replaces Header

Title: Access Control List, Deny REFER with Replaces Header

Description:

When a SIP trunk is configured not to allow Replaces header, an incoming REFER with Replaces header to this trunk is rejected with 403 response.

Configuration:

Node = Remote UA , IP = 10.89.77.5

Node = Unified CM1, IP = 10.89.78.205

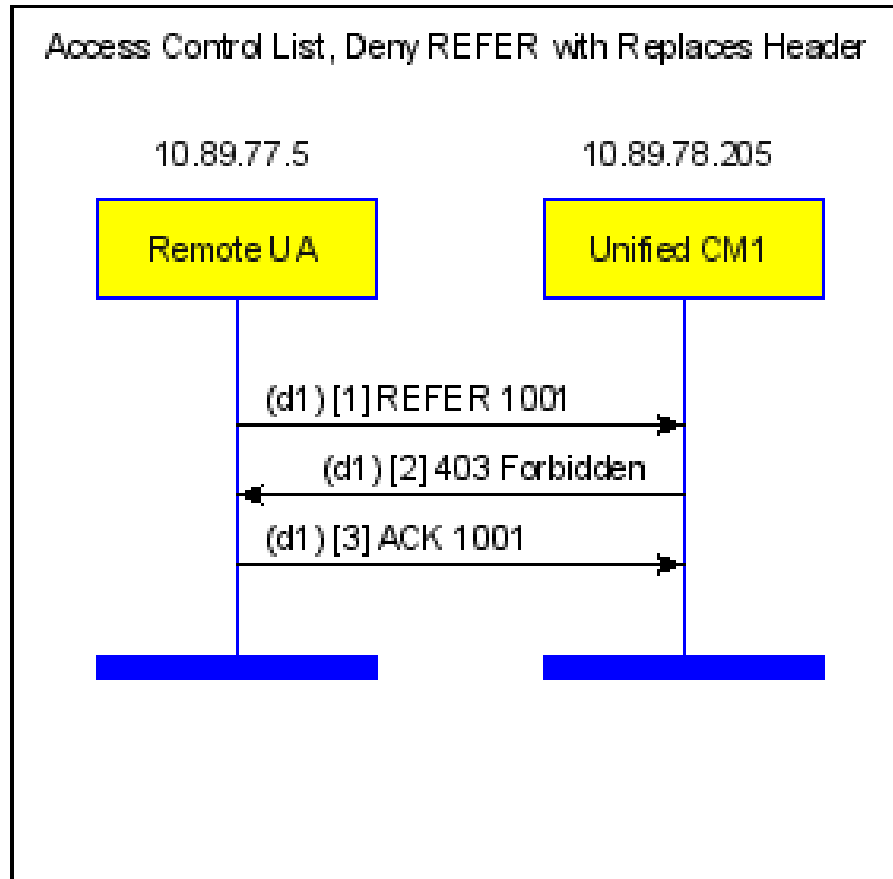
Unified CM1 has its SIP Trunk Security Profile configured to have "Accept Replaces Header" unchecked.

Scenario:

Remote UA sends REFER with Replaces header message to Unified CM1

Unified CM1 rejects the message with 403

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[1] REFER sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.77.5:5060

From: sipp <sip:5678@10.89.77.5:5060>;tag=1

To: <sip:1001@10.89.78.205:5060>

Call-ID: 1-13329@10.89.77.5

Cseq: 103 REFER

Contact: <sip:5678@10.89.77.5:5060>

Refer-To: <sip:1009@10.89.78.205?Replaces=0.943331825637387%3Bto-tag%3D1_1146_CtkS000002%3Bfrom-tag%3Drefer-1_AtoC>

Referred-By: <sip:1234@whatever.com>;x-cisco-monitor-call

Max-Forwards: 70

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[2] SIP/2.0 403 Forbidden**

Via: SIP/2.0/TCP 10.89.77.5:5060

From: sipp <sip:5678@10.89.77.5:5060>;tag=1

To: <sip:1001@10.89.78.205:5060>;tag=1917613621

Date: Thu, 04 Nov 2010 17:44:04 GMT

Call-ID: 1-13329@10.89.77.5

CSeq: 103 REFER

Contact: <sip:1001@10.89.78.205:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[3] ACK sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.77.5:5060

From: sipp <sip:5678@10.89.77.5:5060>;tag=1

To: <sip:1001@10.89.78.205:5060>;tag=1917613621

Call-ID: 1-13329@10.89.77.5

CSeq: 104 ACK

Contact: sip:5678@10.89.77.5:5060

Max-Forwards: 70

Content-Length: 0

CISCO CONFIDENTIAL**16. RSVP****16.1 Outgoing RSVP Call through SIP Trunk**

Title: Outgoing RSVP Call through SIP Trunk

Description:

The scenario for a RSVP outgoing call from a Cisco Unified IP Phone to a UserAgent reachable through Cisco Unified CM's SIP Trunk.

The Cisco Unified IP Phone and the SipTrunk devices are in different location and having RSVP policy=Mandatory between them.

During call setup, a RSVP agent shall be allocated for each device in a different location, which would provide rsvp media path as following:

Cisco Unified IP Phone<--unresereved media->RSVPAgent1<--reserved media
path--->RSVPAgent2<--unreserved media->remoteUA

The RSVPAgent1 is catering to the Cisco Unified IP Phone's location. The RSVPAgent2 is catering to the Cisco Unified CM's SIP Trunk's location.

Configuration:

Node = Unified CM1, IP = 10.89.79.72

Node = Unified CM2, IP = 10.89.74.198

Phone = A, Line = 1101, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2202, IP = 10.13.5.219, Model = SCCP

Scenario:

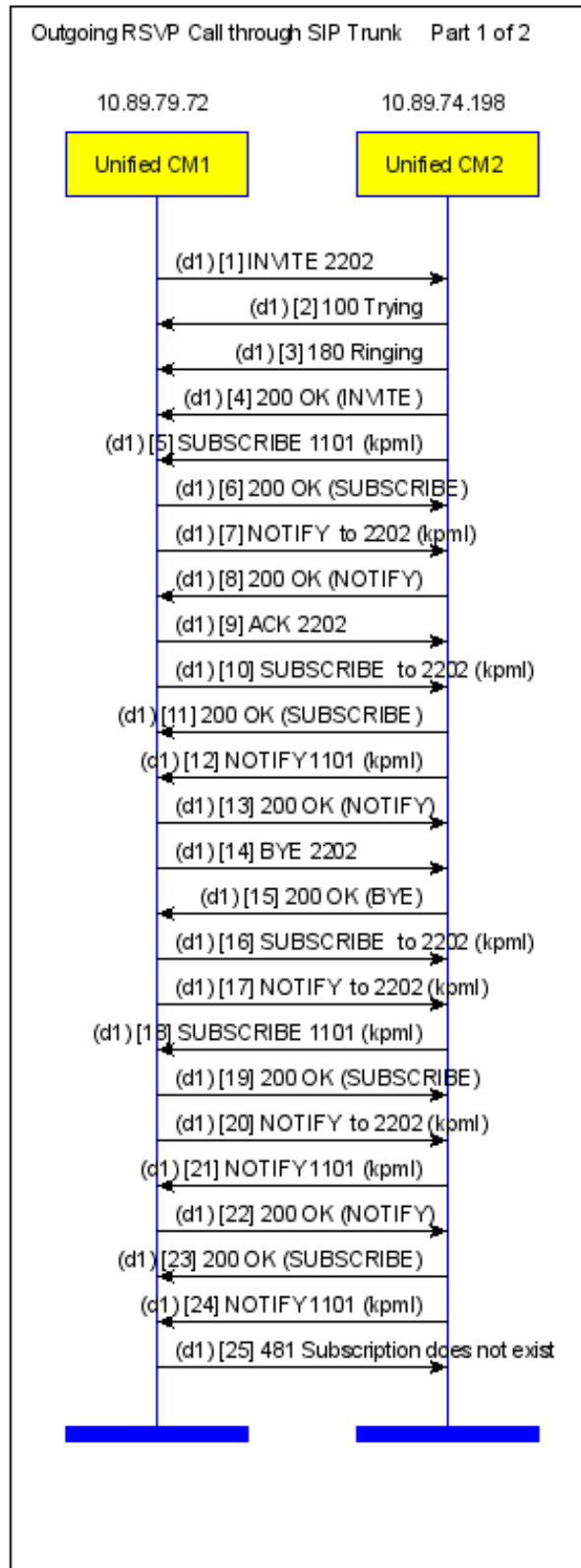
Phone A DN 1101 calls Phone B DN 2002 over the SIP Trunk by dialing 92002

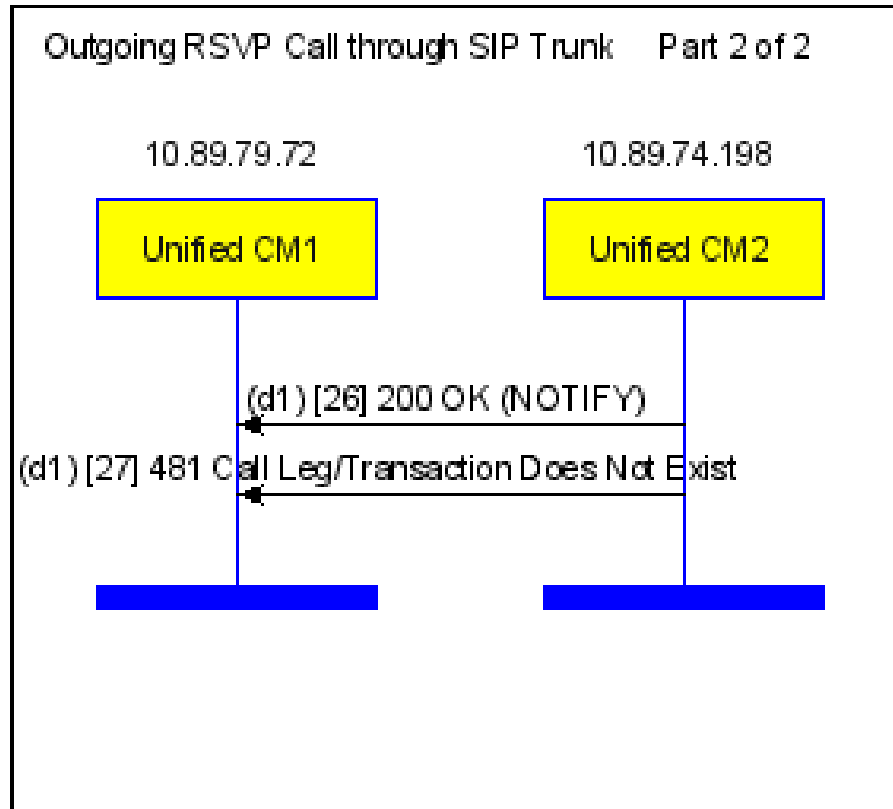
Phone B DN 2202 Answers

Phone A DN 1101 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2202@10.89.74.198:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9329aa73b
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>
 Date: Thu, 04 Nov 2010 15:55:23 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.79.72:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3983912192-00000065536-0000000012-1213159690
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1101@10.89.79.72>
 Remote-Party-ID: <sip:1101@10.89.79.72>;party=calling;screen=yes;privacy=off
 Contact: <sip:1101@10.89.79.72:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9329aa73b
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>
 Date: Thu, 04 Nov 2010 15:09:32 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9329aa73b
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Date: Thu, 04 Nov 2010 15:09:32 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2202@10.89.74.198>
 Remote-Party-ID: <sip:2202@10.89.74.198>;party=called;screen=yes;privacy=off
 Contact: <sip:2202@10.89.74.198:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9329aa73b
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Date: Thu, 04 Nov 2010 15:09:32 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2202@10.89.74.198>
 Remote-Party-ID: <sip:2202@10.89.74.198>;party=called;screen=yes;privacy=off
 Contact: <sip:2202@10.89.74.198:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 322

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.74.198
 s=SIP Call
 c=IN IP4 10.89.78.251
 t=0 0
 m=audio 16652 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[5] SUBSCRIBE sip:1101@10.89.79.72:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14b3281830b
From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
CSeq: 101 SUBSCRIBE
Date: Thu, 04 Nov 2010 15:09:38 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.74.198:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

```

```

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

```

```

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>

```

```
</kpml-request>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[6] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14b3281830b
From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
Date: Thu, 04 Nov 2010 15:55:28 GMT
Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
CSeq: 101 SUBSCRIBE
Contact: <sip:1101@10.89.79.72:5060;transport=tcp>
Expires: 7200
Content-Length: 0

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[7] NOTIFY sip:10.89.74.198:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9412e5c842
From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Thu, 04 Nov 2010 15:55:28 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:1101@10.89.79.72:5060;transport=tcp>
P-Asserted-Identity: <sip:1101@10.89.79.72>
Content-Length: 0

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[8] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9412e5c842
From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
Date: Thu, 04 Nov 2010 15:09:38 GMT
Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
CSeq: 102 NOTIFY
Content-Length: 0

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] ACK sip:2202@10.89.74.198:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK95735f3001
From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871

```

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To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Date: Thu, 04 Nov 2010 15:55:23 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.79.72
 s=SIP Call
 c=IN IP4 10.89.78.251
 t=0 0
 m=audio 18822 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] SUBSCRIBE sip:10.89.74.198:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK962b8ea8dd
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 103 SUBSCRIBE
 Date: Thu, 04 Nov 2010 15:55:28 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:1101@10.89.79.72:5060;transport=tcp>
 P-Asserted-Identity: <sip:1101@10.89.79.72>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK962b8ea8dd
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Date: Thu, 04 Nov 2010 15:09:38 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 103 SUBSCRIBE
 Contact: <sip:10.89.74.198:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] NOTIFY sip:1101@10.89.79.72:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14ccc91b5f
 From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Thu, 04 Nov 2010 15:09:38 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:10.89.74.198:5060;transport=tcp>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14ccc91b5f
 From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871

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Date: Thu, 04 Nov 2010 15:55:28 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 102 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[14] BYE sip:2202@10.89.74.198:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK971818b50c
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Date: Thu, 04 Nov 2010 15:55:23 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1101@10.89.79.72>
 CSeq: 104 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[15] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK971818b50c
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Date: Thu, 04 Nov 2010 15:09:54 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 104 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[16] SUBSCRIBE sip:10.89.74.198:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9833b8c7c1
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 105 SUBSCRIBE
 Date: Thu, 04 Nov 2010 15:55:44 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:1101@10.89.79.72:5060;transport=tcp>
 P-Asserted-Identity: <sip:1101@10.89.79.72>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[17] NOTIFY sip:10.89.74.198:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9918c5a465
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Thu, 04 Nov 2010 15:55:44 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1101@10.89.79.72:5060;transport=tcp>
 P-Asserted-Identity: <sip:1101@10.89.79.72>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[18] SUBSCRIBE sip:1101@10.89.79.72:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14d6643932e
 From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 103 SUBSCRIBE
 Date: Thu, 04 Nov 2010 15:09:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.74.198:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[19] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14d6643932e
 From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871

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Date: Thu, 04 Nov 2010 15:55:44 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 103 SUBSCRIBE
 Contact: <sip:1101@10.89.79.72:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[20] NOTIFY sip:10.89.74.198:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9a10e2262a
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 107 NOTIFY
 Max-Forwards: 70
 Date: Thu, 04 Nov 2010 15:55:44 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:1101@10.89.79.72:5060;transport=tcp>
 P-Asserted-Identity: <sip:1101@10.89.79.72>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[21] NOTIFY sip:1101@10.89.79.72:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14e4dfce684
 From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 104 NOTIFY
 Max-Forwards: 70
 Date: Thu, 04 Nov 2010 15:09:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:10.89.74.198:5060;transport=tcp>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[22] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14e4dfce684
 From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 Date: Thu, 04 Nov 2010 15:55:44 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 104 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[23] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9833b8c7c1
 From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 Date: Thu, 04 Nov 2010 15:09:54 GMT
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 105 SUBSCRIBE
 Contact: <sip:10.89.74.198:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[24] NOTIFY sip:1101@10.89.79.72:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14f532acb21
 From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
 To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
 Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
 CSeq: 105 NOTIFY
 Max-Forwards: 70
 Date: Thu, 04 Nov 2010 15:09:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:10.89.74.198:5060;transport=tcp>
 Content-Type: application/kpml-response+xml

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Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[25] SIP/2.0 481 Subscription does not exist

```
Via: SIP/2.0/TCP 10.89.74.198:5060;branch=z9hG4bK14f532acb21
From: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
To: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
Date: Thu, 04 Nov 2010 15:55:44 GMT
Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
CSeq: 105 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9918c5a465
From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
Date: Thu, 04 Nov 2010 15:09:54 GMT
Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
CSeq: 106 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 481 Call Leg/Transaction Does Not Exist

```
Via: SIP/2.0/TCP 10.89.79.72:5060;branch=z9hG4bK9a10e2262a
From: <sip:1101@10.89.79.72>;tag=3821~3fa9f898-1479-4847-a284-e2f0412cc7d2-21463871
To: <sip:2202@10.89.74.198>;tag=111~e582065f-77ca-46dc-85bc-681fcd20759b-18258273
Date: Thu, 04 Nov 2010 15:09:54 GMT
Call-ID: ed75ad00-cd21d76b-11-484f590a@10.89.79.72
CSeq: 107 NOTIFY
Content-Length: 0
```

CISCO CONFIDENTIAL**17. Publish****17.1 Basic PUBLISH Operations**

Title: Basic PUBLISH Operations

Description:

Cisco Unified CM SIP trunk supports line appearance based presence information publication by using SIP PUBLISH method. This flow shows the basic PUBLISH operations for a given line appearance.

- Directory number 1001 on IP PhoneA is associated with Presence Server's user John.
- When PhoneA registers with CM, SIP trunk sends out creates the publication with no etags.
- After the refresh timer expires, SIP trunk refreshes the publication with empty presence body.
- When PhoneA goes offhook/onhook, SIP trunk modifies the publication with new presence bodies.
- After PhoneA unregisters from CM, SIP trunk deletes the publication with 0 Expires header

Configuration:

Node = Cisco Unified CM, IP = 10.89.78.205

Node = Presence Server, IP = 10.89.78.206

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Scenario:

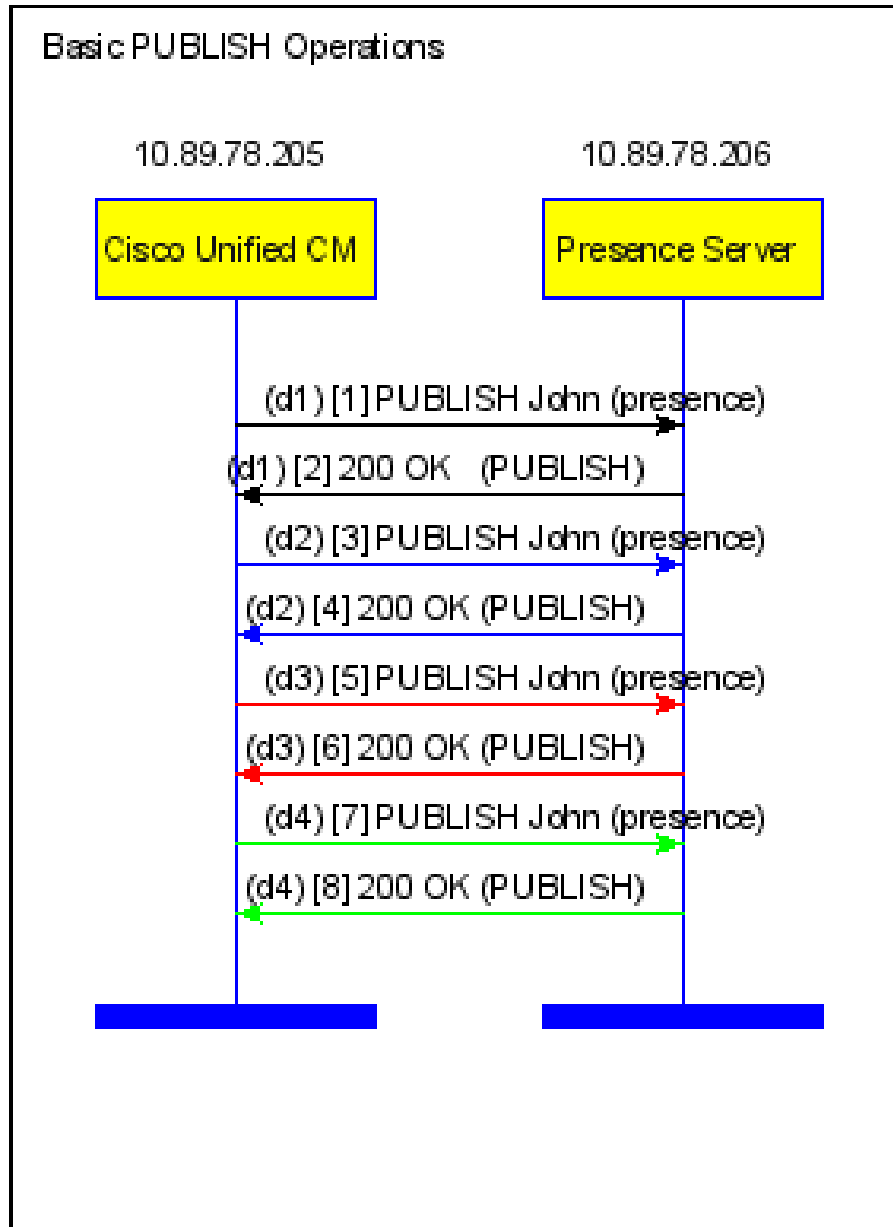
Phone A resets

Phone A offHook

Phone A onHook

Phone A resets

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] PUBLISH sip:John@10.89.78.206:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKd7cbd9657

From: <sip:John@10.89.78.205>;tag=974364461

To: <sip:John@10.89.78.206>

Call-ID: 6a327c00-ce516e41-e-cd4e590a@10.89.78.205

CSeq: 101 PUBLISH

Max-Forwards: 70

Date: Thu, 18 Nov 2010 18:19:45 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Expires: 3600

Content-Type: application/pidf+xml

Content-Length: 871

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-4589b6dd2f7c;npid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceID>001AA264F816</deviceID>
    <timestamp>2010-11-18T18:19:45Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;received=10.89.78.205;branch=z9hG4bKd7cbd9657

CSeq: 101 PUBLISH

Call-ID: 6a327c00-ce516e41-e-cd4e590a@10.89.78.205

From: <sip:John@10.89.78.205>;tag=974364461

To: <sip:John@10.89.78.206>;tag=844522d2

Content-Length: 0

SIP-ETag: 1ed5f92a-9458-409d-a3f6-72bd472dc60e

Expires: 3600

Contact: <sip:10.89.78.206:5070;transport=tcp>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe23cc8e63

From: <sip:John@10.89.78.205>;tag=1272978360

To: <sip:John@10.89.78.206>

Call-ID: 7a4a5b80-ce516e5c-f-cd4e590a@10.89.78.205

CSeq: 101 PUBLISH

Max-Forwards: 70

Date: Thu, 18 Nov 2010 18:20:12 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Expires: 3600

SIP-If-Match: 1ed5f92a-9458-409d-a3f6-72bd472dc60e

Content-Type: application/pidf+xml

Content-Length: 916

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>closed</basic>
    </status>
    <r:activities><r:busy/></r:activities>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-4589b6dd2f7c;npid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceID>001AA264F816</deviceID>
```

```
<timestamp>2010-11-18T18:20:12Z</timestamp>
</tuple>
</presence>
```

```
[diagram] Call-ID: [prev][next]
[4] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe23cc8e63
CSeq: 101 PUBLISH
Call-ID: 7a4a5b80-ce516e5c-f-cd4e590a@10.89.78.205
From: <sip:John@10.89.78.205>;tag=1272978360
To: <sip:John@10.89.78.206>;tag=601d3148
Content-Length: 0
SIP-ETag: 9b1461f1-84d4-47e8-ac54-61403ed9ba1a
Expires: 3600
Contact: <sip:10.89.78.206:5070;transport=tcp>
```

```
[diagram] Call-ID: [prev][next]
[5] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf65f22902
From: <sip:John@10.89.78.205>;tag=970291107
To: <sip:John@10.89.78.206>
Call-ID: 7fa7a600-ce516e65-10-cd4e590a@10.89.78.205
CSeq: 101 PUBLISH
Max-Forwards: 70
Date: Thu, 18 Nov 2010 18:20:21 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 3600
SIP-If-Match: 9b1461f1-84d4-47e8-ac54-61403ed9ba1a
Content-Type: application/pidf+xml
Content-Length: 871
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-4589b6dd2f7c;npkid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceID>001AA264F816</deviceID>
    <timestamp>2010-11-18T18:20:21Z</timestamp>
  </tuple>
</presence>
```

```
[diagram] Call-ID: [prev][next]
[6] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf65f22902
CSeq: 101 PUBLISH
Call-ID: 7fa7a600-ce516e65-10-cd4e590a@10.89.78.205
From: <sip:John@10.89.78.205>;tag=970291107
To: <sip:John@10.89.78.206>;tag=1fe3e517
Content-Length: 0
SIP-ETag: 35110214-b795-4041-8608-f35250e7fb1e
Expires: 3600
Contact: <sip:10.89.78.206:5070;transport=tcp>
```

```
[diagram] Call-ID: [prev][next]
[7] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1014ffce88
From: <sip:John@10.89.78.205>;tag=1949879471
To: <sip:John@10.89.78.206>
Call-ID: 8b936800-ce516e79-11-cd4e590a@10.89.78.205
CSeq: 101 PUBLISH
Max-Forwards: 70
Date: Thu, 18 Nov 2010 18:20:41 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 0
SIP-If-Match: 35110214-b795-4041-8608-f35250e7fb1e
Content-Length: 0
```

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[diagram] Call-ID: [prev][next]
[8] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1014ffce88
CSeq: 101 PUBLISH
Call-ID: 8b936800-ce516e79-11-cd4e590a@10.89.78.205
From: <sip:John@10.89.78.205>;tag=1949879471
To: <sip:John@10.89.78.206>;tag=1fe6eb53
Content-Length: 0
Contact: <sip:10.89.78.206:5070;transport=tcp>

CISCO CONFIDENTIAL**17.2 PUBLISH with Shared Line, A Holds and B Resumes**

Title: PUBLISH with Shared Line, A Holds and B Resumes

Description:

Since presence publication is line appearance based, the same directory number on different phones are treated separately.

- Directory number 1001 on IP PhoneA is associated with Presence Server's user John.
- Directory number 1001 on IP PhoneB is associated with Presence Server's user Bob.
- John made a phone call, since IP PhoneA owns the call, 1001 on PhoneA is published as busy.
- John holds the call. No new PUBLISH message since PhoneA still owns the call.
- Bob resumes the call from PhoneB, so PhoneB takes over the call ownership from PhoneA. 1001 on PhoneA is published as idle, and 1001 on PhoneB is published as busy.
- Bob hangs up the phone. 1001 on PhoneB is published as idle.

Configuration:

Node = Cisco Unified CM1, IP = 10.89.78.205

Node = Cisco Unified CM2, IP = 10.89.78.195

Node = Presence Server, IP = 10.89.78.206

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 1001, IP = 10.13.5.215, Model = SCCP

Phone = C, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP trunk between CC1 and CM2 has route pattern 2.XXXX

Create the end users John Smith and Bob Taylor

Check Enable CUP (Cisco Unified Presence) from System Licensing Capabilities Assignment for both users.

Associate the user John with Phone A's Line Appearance and the user Bob with Phone B's Line Appearance respectively.

Scenario:

Phone A DN 1001 calls Phone C DN 2002 by dialing digits 22002

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Phone C rings

Phone C answers. Phone B DN 1001 shows busy sign (red button on line)

Phone A presses hold softkey

Phone B presses resume softkey on DN 1001 call.

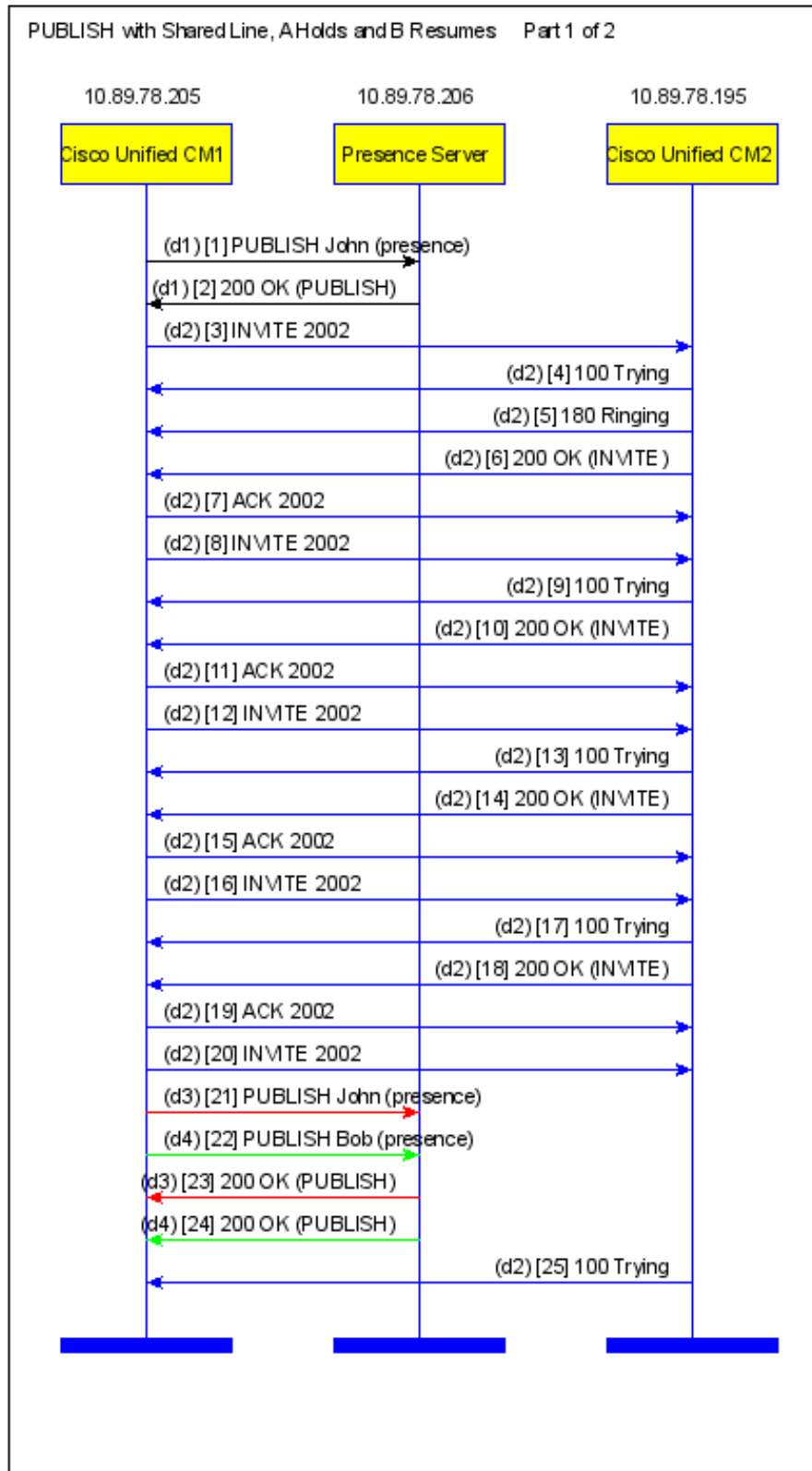
Phone A gets disconnected, since Phone B resumed the call.

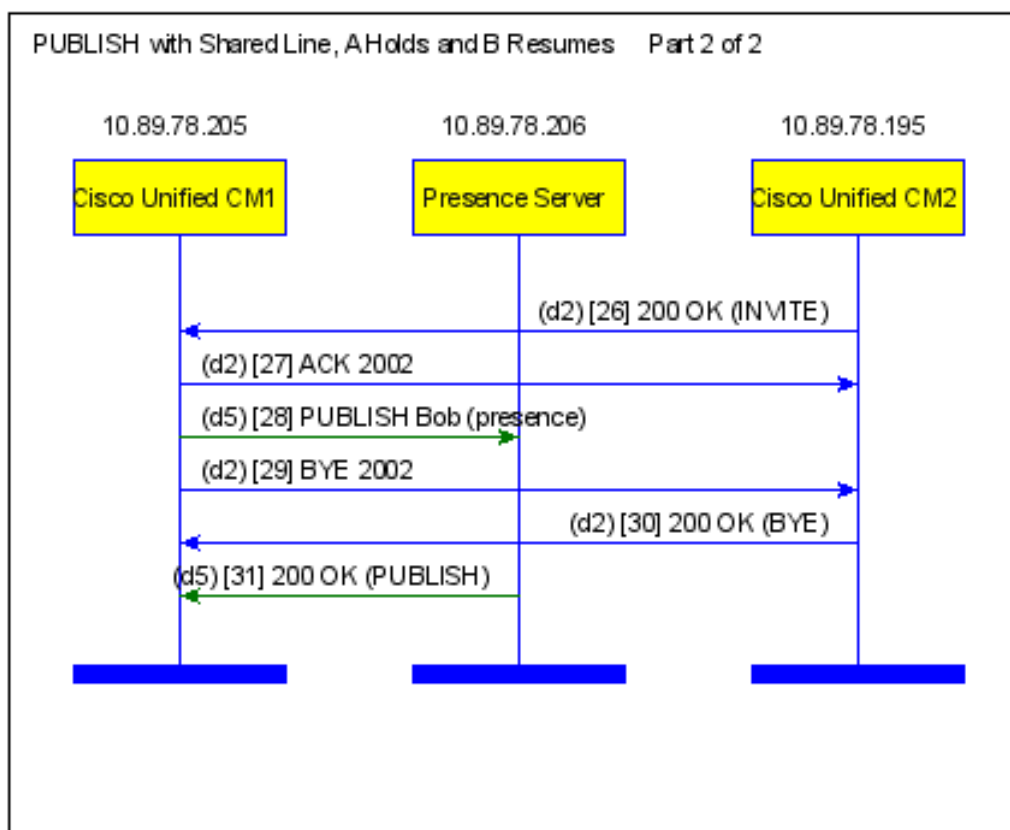
Now Phone B and Phone C talk.

Phone B goes onHook

Phone C goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5a6dfd6e9e

From: <sip:John@10.89.78.205>;tag=152140725

To: <sip:John@10.89.78.206>

Call-ID: 5fd2ab00-ce519ed7-42-cd4e590a@10.89.78.205

CSeq: 101 PUBLISH

Max-Forwards: 70

Date: Thu, 18 Nov 2010 21:47:03 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Expires: 3600

SIP-If-Match: a4687d73-7333-4c0f-8f13-fe6e0c92cf6f

Content-Type: application/pidf+xml

Content-Length: 916

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
  xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
  xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
  xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>closed</basic>
    </status>
    <r:activities><r:busy/></r:activities>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-4589b6dd2f7c;npkid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceID>001AA264F816</deviceID>
    <timestamp>2010-11-18T21:47:03Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5a6dfd6e9e

CSeq: 101 PUBLISH

Call-ID: 5fd2ab00-ce519ed7-42-cd4e590a@10.89.78.205

From: <sip:John@10.89.78.205>;tag=152140725

To: <sip:John@10.89.78.206>;tag=544a646a

Content-Length: 0

SIP-ETag: 72147a03-daf5-4e09-8fd3-6fb6c109e1a2

Expires: 3600

Contact: <sip:10.89.78.206:5070;transport=tcp>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5b1c20a142

From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185

To: <sip:2002@10.89.78.195>

Date: Thu, 18 Nov 2010 21:47:08 GMT

Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 1657641856-0000065536-0000000004-3444463882

Session-Expires: 1800

P-Asserted-Identity: <sip:1001@10.89.78.205>

Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off

Contact: <sip:1001@10.89.78.205:5060;transport=tcp>

Max-Forwards: 70

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5b1c20a142

From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185

To: <sip:2002@10.89.78.195>

Date: Thu, 18 Nov 2010 21:47:08 GMT

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Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5b1c20a142
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:08 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5b1c20a142
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:08 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 17522 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5c741f17d5
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:08 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 24692 RTP/AVP 9 101
 a=rtpmap:9 G722/8000

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```
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[8] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5df0f8be1
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:29 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 219
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 24692 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[9] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5df0f8be1
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:29 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
CSeq: 102 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[10] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5df0f8be1
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:29 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 223
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 17522 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
```

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a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5ec030bc1
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:29 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence, kpml
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5f5983cc47
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:29 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5f5983cc47
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:29 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow-Events: presence, kpml
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5f5983cc47
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:29 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Session-Expires: 1800;refresher=uas
Require: timer
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 321

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 19552 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000

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```
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[15] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6029e205c8
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:29 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 189
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.78.205
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=sendonly
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[16] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK61712fa0d3
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:36 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 104 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 184
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[17] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK61712fa0d3
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:36 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[18] SIP/2.0 200 OK
```

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK61712fa0d3
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:36 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 167

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 19552 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6238f889b5
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:36 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 104 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK634b3b9414
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:36 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 105 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK64827e54
 From: <sip:John@10.89.78.205>;tag=939063247
 To: <sip:John@10.89.78.206>
 Call-ID: 737e1180-ce519ef8-44-cd4e590a@10.89.78.205
 CSeq: 101 PUBLISH
 Max-Forwards: 70
 Date: Thu, 18 Nov 2010 21:47:36 GMT
 User-Agent: Cisco-CUCM8.5
 Event: presence
 Expires: 3600
 SIP-If-Match: 72147a03-daf5-4e09-8fd3-6fb6c109e1a2
 Content-Type: application/pdf+xml
 Content-Length: 871

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```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpid" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpid"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-4589b6dd2f7c;npid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceID>001AA264F816</deviceID>
    <timestamp>2010-11-18T21:47:36Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[22] PUBLISH sip:Bob@10.89.78.206:5070 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6542a9c5e9
 From: <sip:Bob@10.89.78.205>;tag=698175115
 To: <sip:Bob@10.89.78.206>
 Call-ID: 737e1180-ce519ef8-45-cd4e590a@10.89.78.205
 CSeq: 101 PUBLISH
 Max-Forwards: 70
 Date: Thu, 18 Nov 2010 21:47:36 GMT
 User-Agent: Cisco-CUCM8.5
 Event: presence
 Expires: 3600
 SIP-If-Match: 0c387d4a-4459-434d-89f2-75f6e7fd1079
 Content-Type: application/pidf+xml
 Content-Length: 915

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="Bob@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpid" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpid"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-8cab2190-730d-8f6d-6c9c-cfcea1af1c1d">
    <status>
      <basic>closed</basic>
    </status>
    <r:activities><r:busy/></r:activities>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=8cab2190-730d-8f6d-6c9c-cfcea1af1c1d;npid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7970</model>
    <deviceID>001563CE0A9B</deviceID>
    <timestamp>2010-11-18T21:47:36Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[23] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK64827e54
 CSeq: 101 PUBLISH
 Call-ID: 737e1180-ce519ef8-44-cd4e590a@10.89.78.205
 From: <sip:John@10.89.78.205>;tag=939063247
 To: <sip:John@10.89.78.206>;tag=b089bc71
 Content-Length: 0
 SIP-ETag: b162ddf4-65df-4781-abb0-075fd291c111
 Expires: 3600
 Contact: <sip:10.89.78.206:5070;transport=tcp>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[24] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6542a9c5e9
 CSeq: 101 PUBLISH
 Call-ID: 737e1180-ce519ef8-45-cd4e590a@10.89.78.205
 From: <sip:Bob@10.89.78.205>;tag=698175115
 To: <sip:Bob@10.89.78.206>;tag=0e1c7f12
 Content-Length: 0
 SIP-ETag: 90e6eb76-1b03-4ba4-8a59-746c307b697d
 Expires: 3600
 Contact: <sip:10.89.78.206:5070;transport=tcp>

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[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[25] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK634b3b9414
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:36 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[26] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK634b3b9414
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:36 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 20288 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[27] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK662d0639c2
 From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
 To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
 Date: Thu, 18 Nov 2010 21:47:36 GMT
 Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 105 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.215
 t=0 0
 m=audio 27156 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[28] PUBLISH sip:Bob@10.89.78.206:5070 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6752e9735
 From: <sip:Bob@10.89.78.205>;tag=411252728
 To: <sip:Bob@10.89.78.206>
 Call-ID: 77aa2f00-ce519eff-46-cd4e590a@10.89.78.205

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```
CSeq: 101 PUBLISH
Max-Forwards: 70
Date: Thu, 18 Nov 2010 21:47:43 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 3600
SIP-If-Match: 90e6eb76-1b03-4ba4-8a59-746c307b697d
Content-Type: application/pidf+xml
Content-Length: 870
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="Bob@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpid" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpid"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-8cab2190-730d-8f6d-6c9c-cfcea1af1c1d">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=8cab2190-730d-8f6d-6c9c-
cfcea1af1c1d;npkid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7970</model>
    <deviceID>001563CE0A9B</deviceID>
    <timestamp>2010-11-18T21:47:43Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK68256c6a17
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:36 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 106 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK68256c6a17
From: <sip:1001@10.89.78.205>;tag=72~1ebcd687-60ae-450a-823c-0469b2740097-26456185
To: <sip:2002@10.89.78.195>;tag=811~e811c00a-4a66-4296-a800-0718da03b731-26455961
Date: Thu, 18 Nov 2010 21:47:43 GMT
Call-ID: 62cd9b80-ce519edc-43-cd4e590a@10.89.78.205
CSeq: 106 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6752e9735
CSeq: 101 PUBLISH
Call-ID: 77aa2f00-ce519eff-46-cd4e590a@10.89.78.205
From: <sip:Bob@10.89.78.205>;tag=411252728
To: <sip:Bob@10.89.78.206>;tag=ccddc3d6
Content-Length: 0
SIP-ETag: 16f1887f-ce41-4002-8ec7-649b6239d275
Expires: 3600
Contact: <sip:10.89.78.206:5070;transport=tcp>
```

CISCO CONFIDENTIAL**17.3 PUBLISH with Shared Line, A Holds and B Selects**

Title: PUBLISH with Shared Line, A Holds and B Selects

Description:

Since presence publication is line appearance based, the same directory number on different phones are treated separately.

- Directory number 1001 on IP PhoneA is associated with CUPS user John.
- Directory number 1001 on IP PhoneB is associated with CUPS user bob.
- John made a phone call, since IP PhoneA owns the call, 1001 on PhoneA is published as busy.
- John holds the call. No new PUBLISH message since PhoneA still owns the call.
- Bob selects the call from PhoneB, so PhoneB takes over the call ownership from PhoneA. 1001 on PhoneA is published as idle, and 1001 on PhoneB is published as busy.
- Bob resumes the call. No new PUBLISH message since PhoneB still owns the call.
- Bob hangs up the phone. 1001 on PhoneB is published as idle.

Configuration:

Node = Cisco Unified CM1, IP = 10.89.78.205

Node = Cisco Unified CM2, IP = 10.89.78.195

Node = Presence Server, IP = 10.89.78.206

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 1001, IP = 10.13.5.215, Model = SCCP

Phone = C, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP trunk between CC1 and CM2 has route pattern 2.XXXX

Create the end users John Smith and Bob Taylor

Check Enable CUP (Cisco Unified Presence) from System Licensing Capabilities Assignment for both users.

Associate the user John with Phone A's Line Appearance and the user Bob with Phone B's

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Line Appearance respectively.

Scenario:

Phone A DN 1001 calls Phone C DN 2002 by dialing digits 22002

Phone C rings

Phone C answers. Phone B DN 1001 shows busy sign (red button on line)

Phone A presses hold softkey

Phone B selects the DN 1001 call

Phone B presses resume softkey on DN 1001 call

Phone A gets disconnected, since Phone B resumed the call

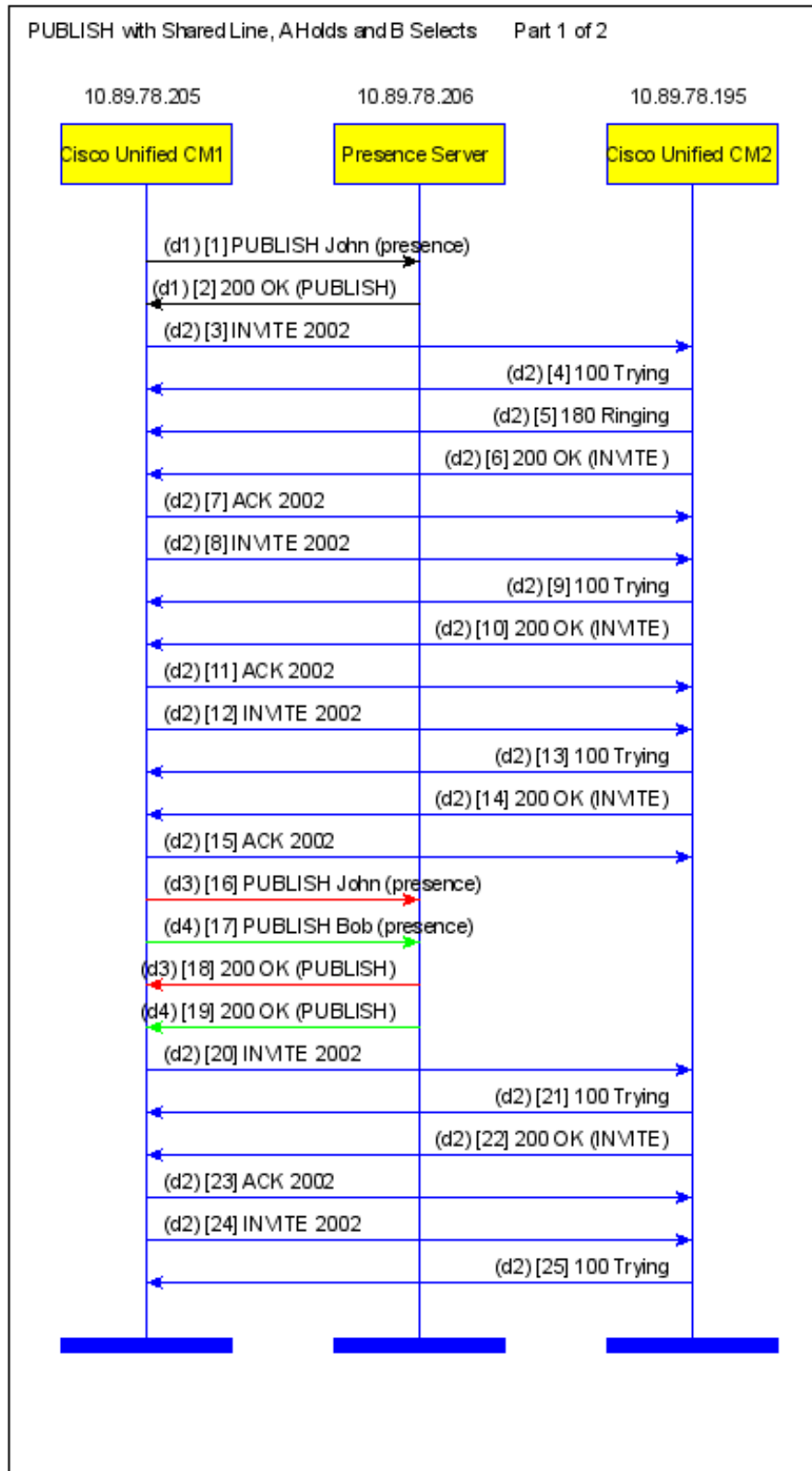
Now Phone B and Phone C talk

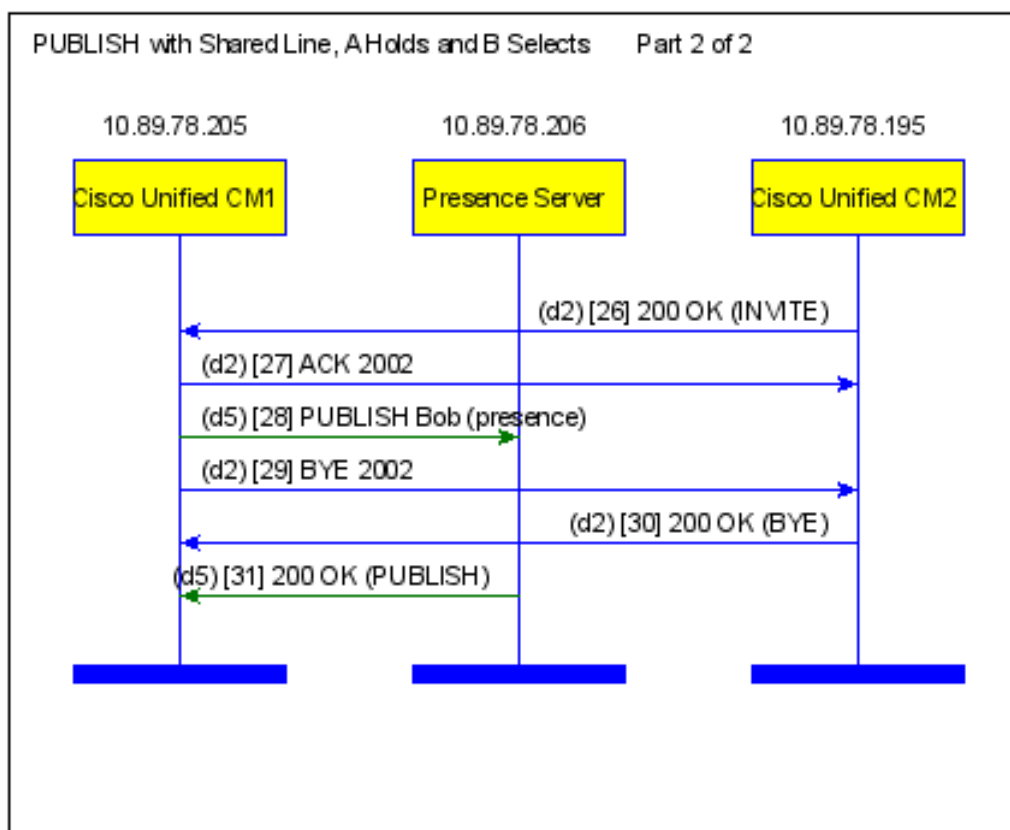
Phone B goes onHook

Phone C goes onHook

End of Scenario

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK69286ee9ee

From: <sip:John@10.89.78.205>;tag=338579945

To: <sip:John@10.89.78.206>

Call-ID: ae804500-ce519f5b-47-cd4e590a@10.89.78.205

CSeq: 101 PUBLISH

Max-Forwards: 70

Date: Thu, 18 Nov 2010 21:49:15 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Expires: 3600

SIP-If-Match: b162ddf4-65df-4781-abb0-075fd291c111

Content-Type: application/pidf+xml

Content-Length: 916

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
  xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
  xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
  xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>closed</basic>
    </status>
    <r:activities><r:busy/></r:activities>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-
4589b6dd2f7c;npid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceID>001AA264F816</deviceID>
    <timestamp>2010-11-18T21:49:15Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK69286ee9ee

CSeq: 101 PUBLISH

Call-ID: ae804500-ce519f5b-47-cd4e590a@10.89.78.205

From: <sip:John@10.89.78.205>;tag=338579945

To: <sip:John@10.89.78.206>;tag=a843d54d

Content-Length: 0

SIP-ETag: d5beb918-59b4-4abb-8f59-65dbe2faa7f5

Expires: 3600

Contact: <sip:10.89.78.206:5070;transport=tcp>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6a6f5b2ac3

From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188

To: <sip:2002@10.89.78.195>

Date: Thu, 18 Nov 2010 21:49:17 GMT

Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 2947641856-0000065536-0000000005-3444463882

Session-Expires: 1800

P-Asserted-Identity: <sip:1001@10.89.78.205>

Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off

Contact: <sip:1001@10.89.78.205:5060;transport=tcp>

Max-Forwards: 70

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6a6f5b2ac3

From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188

To: <sip:2002@10.89.78.195>

Date: Thu, 18 Nov 2010 21:49:17 GMT

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Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6a6f5b2ac3
 From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
 To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
 Date: Thu, 18 Nov 2010 21:49:17 GMT
 Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6a6f5b2ac3
 From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
 To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
 Date: Thu, 18 Nov 2010 21:49:17 GMT
 Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 30480 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6bc51898b
 From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
 To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
 Date: Thu, 18 Nov 2010 21:49:17 GMT
 Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 21266 RTP/AVP 9 101
 a=rtpmap:9 G722/8000

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```
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[8] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6c2337919e
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:49:44 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 219
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 21266 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[9] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6c2337919e
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:49:44 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
CSeq: 102 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[10] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6c2337919e
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:49:44 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 223
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 30480 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
```

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a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6d1253f4ba
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:49:44 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence, kpml
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6e20d38f64
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:49:44 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6e20d38f64
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:49:44 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow-Events: presence, kpml
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[14] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6e20d38f64
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:49:44 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Session-Expires: 1800;refresher=uas
Require: timer
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 321

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 16712 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000

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```
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[15] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6f3b607946
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:49:44 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 189
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.78.205
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=sendonly
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[16] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK701e94e607
From: <sip:John@10.89.78.205>;tag=2084429076
To: <sip:John@10.89.78.206>
Call-ID: c6f05f80-ce519f84-49-cd4e590a@10.89.78.205
CSeq: 101 PUBLISH
Max-Forwards: 70
Date: Thu, 18 Nov 2010 21:49:56 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 3600
SIP-If-Match: d5beb918-59b4-4abb-8f59-65dbe2faa7f5
Content-Type: application/pidf+xml
Content-Length: 871
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
  xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
  xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
  xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-4589b6dd2f7c;npkid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceId>001AA264F816</deviceId>
    <timestamp>2010-11-18T21:49:56Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[17] PUBLISH sip:Bob@10.89.78.206:5070 SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK715d8b9d24
From: <sip:Bob@10.89.78.205>;tag=1494504720
To: <sip:Bob@10.89.78.206>
Call-ID: c6f05f80-ce519f84-4a-cd4e590a@10.89.78.205
CSeq: 101 PUBLISH
Max-Forwards: 70
Date: Thu, 18 Nov 2010 21:49:56 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 3600
```

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SIP-If-Match: 16f1887f-ce41-4002-8ec7-649b6239d275
 Content-Type: application/pidf+xml
 Content-Length: 915

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="Bob@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-8cab2190-730d-8f6d-6c9c-cfcea1af1c1d">
    <status>
      <basic>closed</basic>
    </status>
    <r:activities><r:busy/></r:activities>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=8cab2190-730d-8f6d-6c9c-
cfcea1af1c1d;npkid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7970</model>
    <deviceID>001563CE0A9B</deviceID>
    <timestamp>2010-11-18T21:49:56Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[18] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK701e94e607
 CSeq: 101 PUBLISH
 Call-ID: c6f05f80-ce519f84-49-cd4e590a@10.89.78.205
 From: <sip:John@10.89.78.205>;tag=2084429076
 To: <sip:John@10.89.78.206>;tag=d5ae00b8
 Content-Length: 0
 SIP-ETag: 44d48651-6941-4413-85cc-5aed6e192882
 Expires: 3600
 Contact: <sip:10.89.78.206:5070;transport=tcp>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[19] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK715d8b9d24
 CSeq: 101 PUBLISH
 Call-ID: c6f05f80-ce519f84-4a-cd4e590a@10.89.78.205
 From: <sip:Bob@10.89.78.205>;tag=1494504720
 To: <sip:Bob@10.89.78.206>;tag=aee35f0d
 Content-Length: 0
 SIP-ETag: cc786287-15d5-4861-a17e-b078a493e79a
 Expires: 3600
 Contact: <sip:10.89.78.206:5070;transport=tcp>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[20] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK726f11fd1e
 From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
 To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
 Date: Thu, 18 Nov 2010 21:50:03 GMT
 Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 184

```
v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
```


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a=rtptime:0 PCMU/8000
a=ptime:20
a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK726f11fd1e
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:50:03 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK726f11fd1e
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:50:03 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 167

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 16712 RTP/AVP 0
a=rtptime:0 PCMU/8000
a=ptime:20
a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK73396f2932
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:50:03 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 104 ACK
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[24] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK745c57d77b
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:50:03 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
Supported: timer, resource-priority, replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 105 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Length: 0

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[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[25] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK745c57d77b
 From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
 To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
 Date: Thu, 18 Nov 2010 21:50:03 GMT
 Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[26] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK745c57d77b
 From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
 To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
 Date: Thu, 18 Nov 2010 21:50:03 GMT
 Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
 CSeq: 105 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 18534 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[27] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK75303de469
 From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
 To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
 Date: Thu, 18 Nov 2010 21:50:03 GMT
 Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 105 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.215
 t=0 0
 m=audio 25402 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[28] PUBLISH sip:Bob@10.89.78.206:5070 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7661abb533
 From: <sip:Bob@10.89.78.205>;tag=1413178935
 To: <sip:Bob@10.89.78.206>
 Call-ID: d2438b00-ce519f97-4b-cd4e590a@10.89.78.205

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```
CSeq: 101 PUBLISH
Max-Forwards: 70
Date: Thu, 18 Nov 2010 21:50:15 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 3600
SIP-If-Match: cc786287-15d5-4861-a17e-b078a493e79a
Content-Type: application/pidf+xml
Content-Length: 870
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="Bob@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpid" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpid"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-8cab2190-730d-8f6d-6c9c-cfcea1af1c1d">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=8cab2190-730d-8f6d-6c9c-
cfcea1af1c1d;npkid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7970</model>
    <deviceID>001563CE0A9B</deviceID>
    <timestamp>2010-11-18T21:50:15Z</timestamp>
  </tuple>
</presence>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[29] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK77461d22ba
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:50:03 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 106 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[30] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK77461d22ba
From: <sip:1001@10.89.78.205>;tag=78~1ebcd687-60ae-450a-823c-0469b2740097-26456188
To: <sip:2002@10.89.78.195>;tag=817~e811c00a-4a66-4296-a800-0718da03b731-26455963
Date: Thu, 18 Nov 2010 21:50:15 GMT
Call-ID: afb17200-ce519f5d-48-cd4e590a@10.89.78.205
CSeq: 106 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[31] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7661abb533
CSeq: 101 PUBLISH
Call-ID: d2438b00-ce519f97-4b-cd4e590a@10.89.78.205
From: <sip:Bob@10.89.78.205>;tag=1413178935
To: <sip:Bob@10.89.78.206>;tag=2eef51ea
Content-Length: 0
SIP-ETag: a99827b1-7bfb-4185-8041-8f718ebe3783
Expires: 3600
Contact: <sip:10.89.78.206:5070;transport=tcp>
```

CISCO CONFIDENTIAL**17.4 PUBLISH Support for Mobility**

Title: PUBLISH Support for Mobility

Description:

This flow shows the PUBLISH support for mobility.

- Directory number 1001 is associated with a remote destination profile, which points to a mobile phone number 88991000 that is connected to Unified CM through a SIP Gateway.
- The remote profile is associated with user John.
- When 1001 is called and ringing, mobile number 88991000 also rings.
- If the mobile phone answers the call, busy status is published. Since the remote destination is a mobile phone, the mobile number is in the PUBLISH message.
- After the call is terminated, idle status is published.

Configuration:

Node = Cisco Unified CM, IP = 10.89.78.205

Node = Presence Server, IP = 10.89.78.206

Node = SIP Gateway, IP = 10.18.1.28

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1003, IP = 10.13.5.215, Model = SCCP

Phone = B, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = C, Line = 88991000, Mobile Phone Registered to SIP Gateway

Active Cisco Unified Mobile Voice Access Service

Create the end user and check Enable Mobility and Enable Mobile Voice Access.

Create the Remote Destination Profile and assign Phone C as Destination Number and Enable Mobile Connect and then associate it to a line of PhoneB

Edit the Line Appearance of both Phone A and Remote Destination to associate both to the end user John

Scenario:

Phone A call Phone B

Both Phone B and Phone C are ringing

Phone C answers

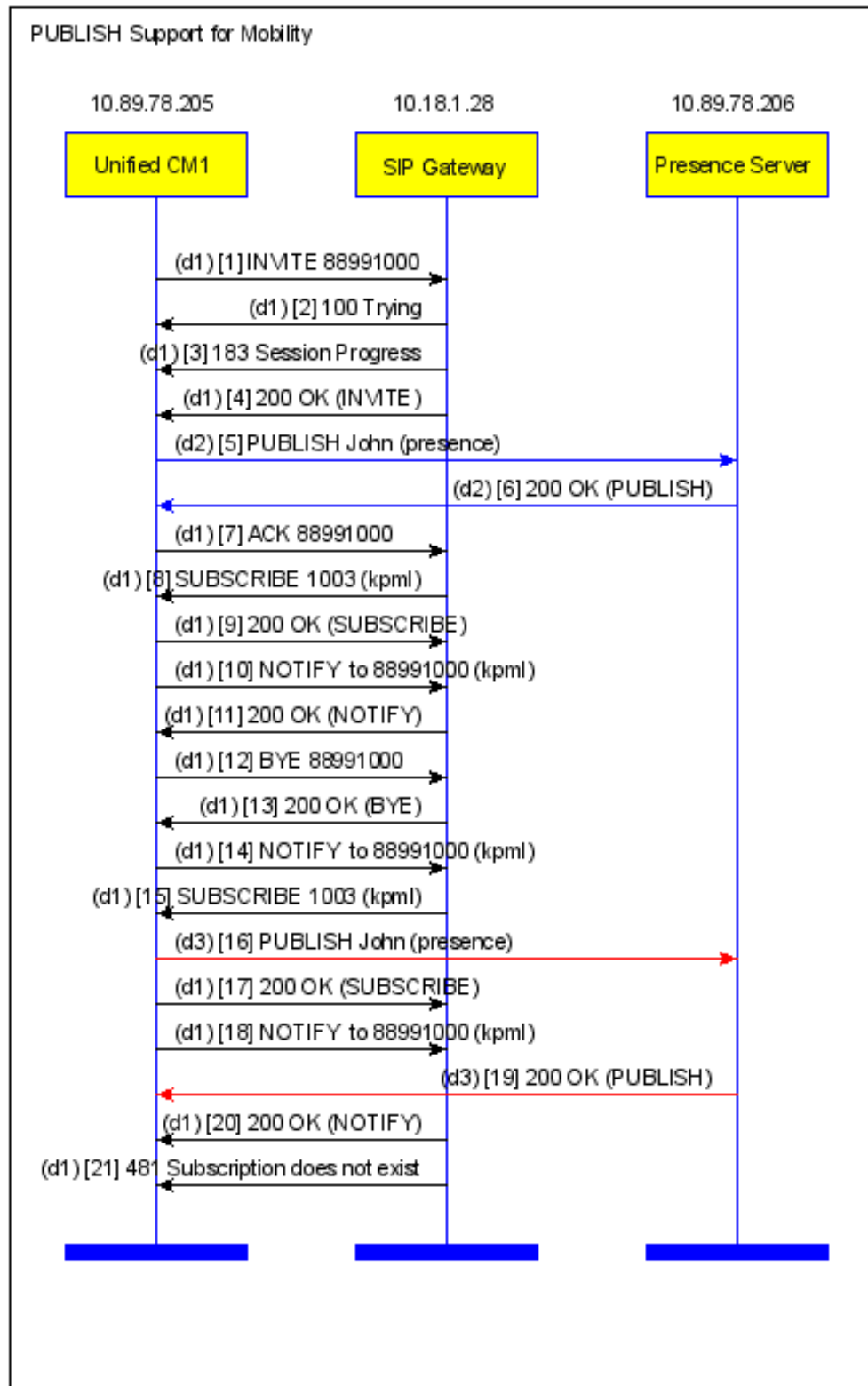
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Phone A onHook

Phone C onHook

End of Scenarion

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:88991000@10.18.1.28:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf42801e4d6
 From: <sip:1003@10.89.78.205>;tag=189~1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>
 Date: Fri, 19 Nov 2010 21:09:23 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1194051840-0000065536-0000000021-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf42801e4d6
 From: <sip:1003@10.89.78.205>;tag=189~1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>
 Date: Thu, 12 Jun 2008 22:26:16 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow-Events: telephone-event
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf42801e4d6
 From: <sip:1003@10.89.78.205>;tag=189~1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 Date: Thu, 12 Jun 2008 22:26:16 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 384

v=0
 o=CiscoSystemsSIP-GW-UserAgent 6141 497 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 18656 RTP/AVP 18 0 8 4 96 3 19
 c=IN IP4 10.18.1.28
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:4 G723/8000
 a=fmtp:4 bitrate=6.3;annexa=no
 a=rtpmap:96 G726-32/8000
 a=rtpmap:3 GSM/8000
 a=rtpmap:19 CN/8000

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf42801e4d6
 From: <sip:1003@10.89.78.205>;tag=189~1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 Date: Thu, 12 Jun 2008 22:26:16 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 101 INVITE

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Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO, REGISTER
 Allow-Events: telephone-event
 Remote-Party-ID: <sip:88991000@10.18.1.28>;party=called;screen=no;privacy=off
 Contact: <sip:88991000@10.18.1.28:5060;transport=tcp>
 Supported: replaces
 Session-Expires: 1800;refresher=uac
 Require: timer
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 384

v=0
 o=CiscoSystemsSIP-GW-UserAgent 6141 497 IN IP4 10.18.1.28
 s=SIP Call
 c=IN IP4 10.18.1.28
 t=0 0
 m=audio 18656 RTP/AVP 18 0 8 4 96 3 19
 c=IN IP4 10.18.1.28
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:4 G723/8000
 a=fmtp:4 bitrate=6.3;annexa=no
 a=rtpmap:96 G726-32/8000
 a=rtpmap:3 GSM/8000
 a=rtpmap:19 CN/8000

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[5] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf57daa5468
 From: <sip:John@10.89.78.205>;tag=1875833484
 To: <sip:John@10.89.78.206>
 Call-ID: 590d6c00-ce61e7a1-ad-cd4e590a@10.89.78.205
 CSeq: 101 PUBLISH
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 21:09:53 GMT
 User-Agent: Cisco-CUCM8.5
 Event: presence
 Expires: 3600
 SIP-If-Match: 4ef64c89-f018-4ba1-92b1-e0541f27e803
 Content-Type: application/pidf+xml
 Content-Length: 892

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
  xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
  xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
  xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-0d430f03-2c92-f5db-a3aa-b960b37af7ed">
    <status>
      <basic>closed</basic>
    </status>
    <r:activities><r:busy/></r:activities>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=0d430f03-2c92-f5db-a3aa-
b960b37af7ed;npkid=51725eca-086e-4834-a258-7f8811a26761;mobile=388991000</contact>
    <model>unknown</model>
    <timestamp>2010-11-19T21:09:53Z</timestamp>
  </tuple>
</presence>
```

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[6] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf57daa5468
 CSeq: 101 PUBLISH
 Call-ID: 590d6c00-ce61e7a1-ad-cd4e590a@10.89.78.205
 From: <sip:John@10.89.78.205>;tag=1875833484
 To: <sip:John@10.89.78.206>;tag=695e9b0d
 Content-Length: 0
 SIP-ETag: e591749c-ed05-42b3-a683-5609159ecdd3
 Expires: 3600
 Contact: <sip:10.89.78.206:5070;transport=tcp>

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[7] ACK sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf672e57e88
 From: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251

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To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 Date: Fri, 19 Nov 2010 21:09:23 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 155

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.215
 t=0 0
 m=audio 20550 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SUBSCRIBE sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bKDD16DF
 From: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 To: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 CSeq: 101 SUBSCRIBE
 Max-Forwards: 70
 Date: Thu, 12 Jun 2008 22:26:46 GMT
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Event: kpml
 Expires: 7200
 Contact: <sip:10.18.1.28:5060;transport=tcp>
 Content-Type: application/kpml-request+xml
 Content-Length: 327

```
<?xml version="1.0" encoding="UTF-8"?><kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-
request kpml-request.xsd" version="1.0"><pattern persist="persist"><regex
tag="dtmf">[x*#ABCD]</regex></pattern></kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bKDD16DF
 From: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 To: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251
 Date: Fri, 19 Nov 2010 21:09:53 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 CSeq: 101 SUBSCRIBE
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf74a3bbbcd
 From: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 21:09:53 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf74a3bbbcd
 From: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 Date: Thu, 12 Jun 2008 22:26:46 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] BYE sip:88991000@10.18.1.28:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf870a768f7

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From: <sip:1003@10.89.78.205>;tag=189~1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 Date: Fri, 19 Nov 2010 21:09:23 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf870a768f7
 From: <sip:1003@10.89.78.205>;tag=189~1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 Date: Thu, 12 Jun 2008 22:26:58 GMT
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 Server: Cisco-SIPGateway/IOS-12.x
 CSeq: 103 BYE
 Reason: Q.850;cause=16
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf93ec51de1
 From: <sip:1003@10.89.78.205>;tag=189~1ebcd687-60ae-450a-823c-0469b2740097-26456251
 To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 CSeq: 104 NOTIFY
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 21:10:05 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SUBSCRIBE sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bKDE2341
 From: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
 To: <sip:1003@10.89.78.205>;tag=189~1ebcd687-60ae-450a-823c-0469b2740097-26456251
 Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Max-Forwards: 70
 Date: Thu, 12 Jun 2008 22:26:58 GMT
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Event: kpml
 Expires: 0
 Contact: <sip:10.18.1.28:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKfa7d678f02
 From: <sip:John@10.89.78.205>;tag=534617650
 To: <sip:John@10.89.78.206>
 Call-ID: 60347a00-ce61e7ad-ae-cd4e590a@10.89.78.205
 CSeq: 101 PUBLISH
 Max-Forwards: 70
 Date: Fri, 19 Nov 2010 21:10:05 GMT
 User-Agent: Cisco-CUCM8.5
 Event: presence
 Expires: 3600
 SIP-If-Match: e591749c-ed05-42b3-a683-5609159ecdd3
 Content-Type: application/pidf+xml
 Content-Length: 847

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpId" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpId"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-0d430f03-2c92-f5db-a3aa-b960b37af7ed">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
```

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```

</sc:servcaps>
<contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=0d430f03-2c92-f5db-a3aa-
b960b37af7ed;npkid=51725eca-086e-4834-a258-7f8811a26761;mobile=388991000</contact>
<model>unknown</model>
<timestamp>2010-11-19T21:10:05Z</timestamp>
</tuple>
</presence>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.18.1.28:5060;branch=z9hG4bKDE2341
From: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
To: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251
Date: Fri, 19 Nov 2010 21:10:05 GMT
Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
Expires: 0
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] NOTIFY sip:10.18.1.28:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKfb60dad82c
From: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251
To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
CSeq: 105 NOTIFY
Max-Forwards: 70
Date: Fri, 19 Nov 2010 21:10:05 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: terminated;reason=timeout
Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
P-Asserted-Identity: <sip:1003@10.89.78.205>
Content-Type: application/kpml-response+xml
Content-Length: 348

```

```

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKfa7d678f02
CSeq: 101 PUBLISH
Call-ID: 60347a00-ce61e7ad-ae-cd4e590a@10.89.78.205
From: <sip:John@10.89.78.205>;tag=534617650
To: <sip:John@10.89.78.206>;tag=c195b0ee
Content-Length: 0
SIP-ETag: bb866186-7653-4799-b6a1-7d50ce84e7f3
Expires: 3600
Contact: <sip:10.89.78.206:5070;transport=tcp>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf93ec51de1
From: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251
To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
Date: Thu, 12 Jun 2008 22:26:59 GMT
Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
CSeq: 104 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 481 Subscription does not exist

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKfb60dad82c
From: <sip:1003@10.89.78.205>;tag=189-1ebcd687-60ae-450a-823c-0469b2740097-26456251
To: <sip:88991000@10.18.1.28>;tag=FB69C3C-1A81
Date: Thu, 12 Jun 2008 22:26:59 GMT
Call-ID: 472bc900-ce61e783-ac-cd4e590a@10.89.78.205
CSeq: 105 NOTIFY
Content-Length: 0

```

CISCO CONFIDENTIAL**17.5 PUBLISH Support for DND**

Title: PUBLISH Support for DND

Description:

This flow shows the PUBLISH support for DND. DND status is published independent of the line appearance's busy/idle status.

- Directory number 1001 is associated with an end user alice.
- Phone DND turned.
- When the phone becomes busy, DND status is published as well.
- When the phone becomes idle, DND status is published as well.

Configuration:

Node = Cisco Unified CM, IP = 10.89.78.205

Node = Presence Server, IP = 10.89.78.206

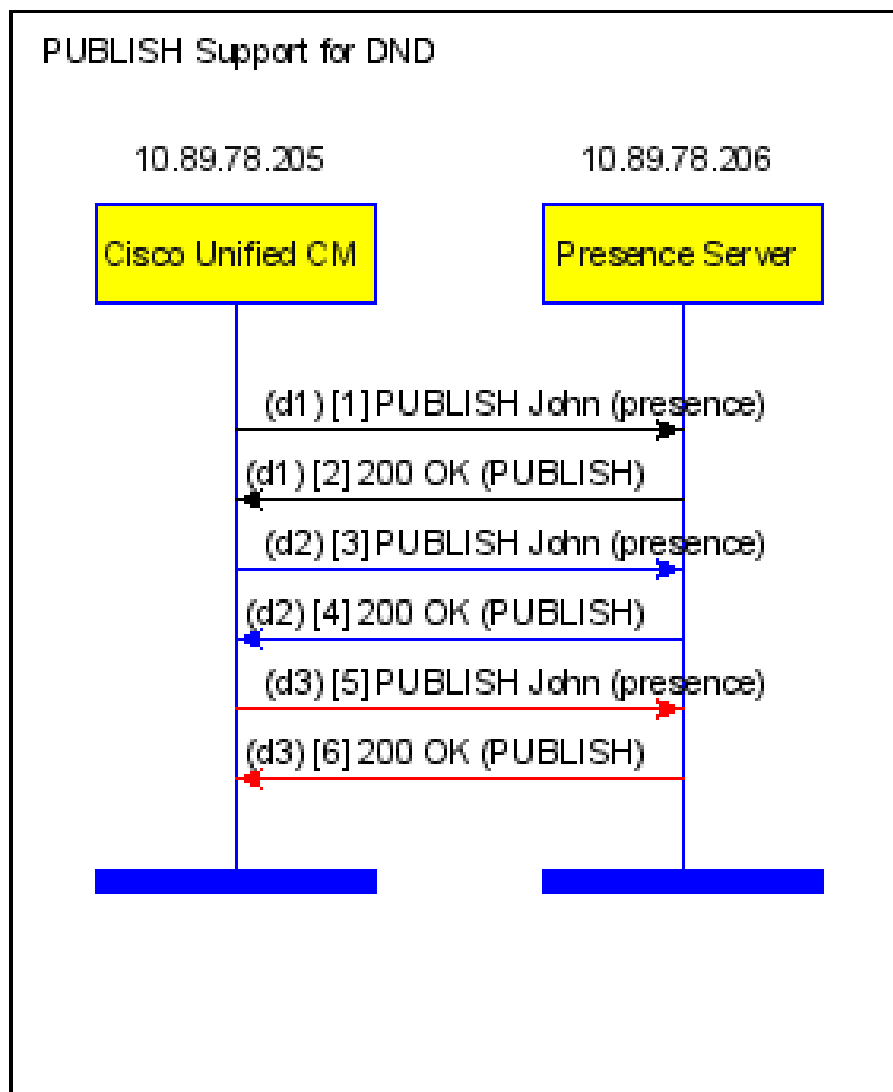
Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Scenario:

Phone A offHook

Phone A onHook

End of Scenario

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[diagram] Call-ID:[prev][next]

[1] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f721b7fc5

From: <sip:John@10.89.78.205>;tag=206327203

To: <sip:John@10.89.78.206>

Call-ID: 4aa64e00-ce5192f5-2b-cd4e590a@10.89.78.205

CSeq: 101 PUBLISH

Max-Forwards: 70

Date: Thu, 18 Nov 2010 20:56:21 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Expires: 3600

SIP-If-Match: ed5cdebc-a2eb-4950-8527-6e9a7081e966

Content-Type: application/pidf+xml

Content-Length: 955

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
  xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
  xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
  xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-4589b6dd2f7c;npid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceID>001AA264F816</deviceID>
    <timestamp>2010-11-18T20:56:21Z</timestamp>
  </tuple>
  <dm:person>
    <r:activities>
      <ce:dnd/>
    </r:activities>
  </dm:person>
</presence>
```

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK2f721b7fc5

CSeq: 101 PUBLISH

Call-ID: 4aa64e00-ce5192f5-2b-cd4e590a@10.89.78.205

From: <sip:John@10.89.78.205>;tag=206327203

To: <sip:John@10.89.78.206>;tag=3a675117

Content-Length: 0

SIP-ETag: ed47806b-dc0a-41d8-9e74-4f5a95519003

Expires: 3600

Contact: <sip:10.89.78.206:5070;transport=tcp>

[diagram] Call-ID:[prev][next]

[3] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK30370108b5

From: <sip:John@10.89.78.205>;tag=1054346154

To: <sip:John@10.89.78.206>

Call-ID: 4c701180-ce5192f8-2c-cd4e590a@10.89.78.205

CSeq: 101 PUBLISH

Max-Forwards: 70

Date: Thu, 18 Nov 2010 20:56:24 GMT

User-Agent: Cisco-CUCM8.5

Event: presence

Expires: 3600

SIP-If-Match: ed47806b-dc0a-41d8-9e74-4f5a95519003

Content-Type: application/pidf+xml

Content-Length: 1000

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
  xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
  xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
  xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>closed</basic>
    </status>
    <r:activities><r:busy/></r:activities>
    <sc:servcaps>
```

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```

    <sc:audio>true</sc:audio>
  </sc:servcaps>
  <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-
4589b6dd2f7c;npid=51725eca-086e-4834-a258-7f8811a26761</contact>
  <model>Cisco 7971</model>
  <deviceID>001AA264F816</deviceID>
  <timestamp>2010-11-18T20:56:24Z</timestamp>
</tuple>
<dm:person>
  <r:activities>
    <ce:dnd/>
  </r:activities>
</dm:person>
</presence>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[4] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK30370108b5
CSeq: 101 PUBLISH
Call-ID: 4c701180-ce5192f8-2c-cd4e590a@10.89.78.205
From: <sip:John@10.89.78.205>;tag=1054346154
To: <sip:John@10.89.78.206>;tag=6416ebbc
Content-Length: 0
SIP-ETag: 4c5ebb38-ad5d-4eea-8c4a-f08bb2228d2a
Expires: 3600
Contact: <sip:10.89.78.206:5070;transport=tcp>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[5] PUBLISH sip:John@10.89.78.206:5070 SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3124472ca8
From: <sip:John@10.89.78.205>;tag=1739962617
To: <sip:John@10.89.78.206>
Call-ID: 4e39d500-ce5192fb-2d-cd4e590a@10.89.78.205
CSeq: 101 PUBLISH
Max-Forwards: 70
Date: Thu, 18 Nov 2010 20:56:27 GMT
User-Agent: Cisco-CUCM8.5
Event: presence
Expires: 3600
SIP-If-Match: 4c5ebb38-ad5d-4eea-8c4a-f08bb2228d2a
Content-Type: application/pidf+xml
Content-Length: 955

```

```

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<presence xmlns="urn:ietf:params:xml:ns:pidf" entity="John@10.89.78.205"
xmlns:r="urn:ietf:params:xml:ns:pidf:status:rpidd" xmlns:ce="urn:cisco:params:xml:ns:pidf:rpidd"
xmlns:dm="urn:ietf:params:xml:ns:pidf:data-model" xmlns:so="urn:cisco:params:xml:ns:pidf:source"
xmlns:sc="urn:ietf:params:xml:ns:pidf:servcaps">
  <tuple id="51725eca-086e-4834-a258-7f8811a26761-f91c0787-98dc-4492-ae6d-4589b6dd2f7c">
    <status>
      <basic>open</basic>
    </status>
    <sc:servcaps>
      <sc:audio>true</sc:audio>
    </sc:servcaps>
    <contact priority="0.8">sip:1001@10.89.78.205:5060;dpkid=f91c0787-98dc-4492-ae6d-
4589b6dd2f7c;npid=51725eca-086e-4834-a258-7f8811a26761</contact>
    <model>Cisco 7971</model>
    <deviceID>001AA264F816</deviceID>
    <timestamp>2010-11-18T20:56:27Z</timestamp>
  </tuple>
  <dm:person>
    <r:activities>
      <ce:dnd/>
    </r:activities>
  </dm:person>
</presence>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[6] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3124472ca8
CSeq: 101 PUBLISH
Call-ID: 4e39d500-ce5192fb-2d-cd4e590a@10.89.78.205
From: <sip:John@10.89.78.205>;tag=1739962617
To: <sip:John@10.89.78.206>;tag=07781a47
Content-Length: 0
SIP-ETag: f96b9e6f-262c-4f76-ad1d-a33f9adc1485
Expires: 3600
Contact: <sip:10.89.78.206:5070;transport=tcp>

```

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CISCO CONFIDENTIAL**18. G.729****18.1 Establish G.729a with No MTP**

Title: Establish G.729a with No MTP

Description:

This feature allows for calls with pre-allocated MTP to be initiated with low bandwidth codecs such as G729.

The CM1 is configured with MTP Required and the G.729a codec on SIP Trunk going to CM2. CM2 trunk doesn't have MTP Required checked.

External MTP is attached to Unified CM1.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Node = External MTP, IP = 10.89.79.60

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

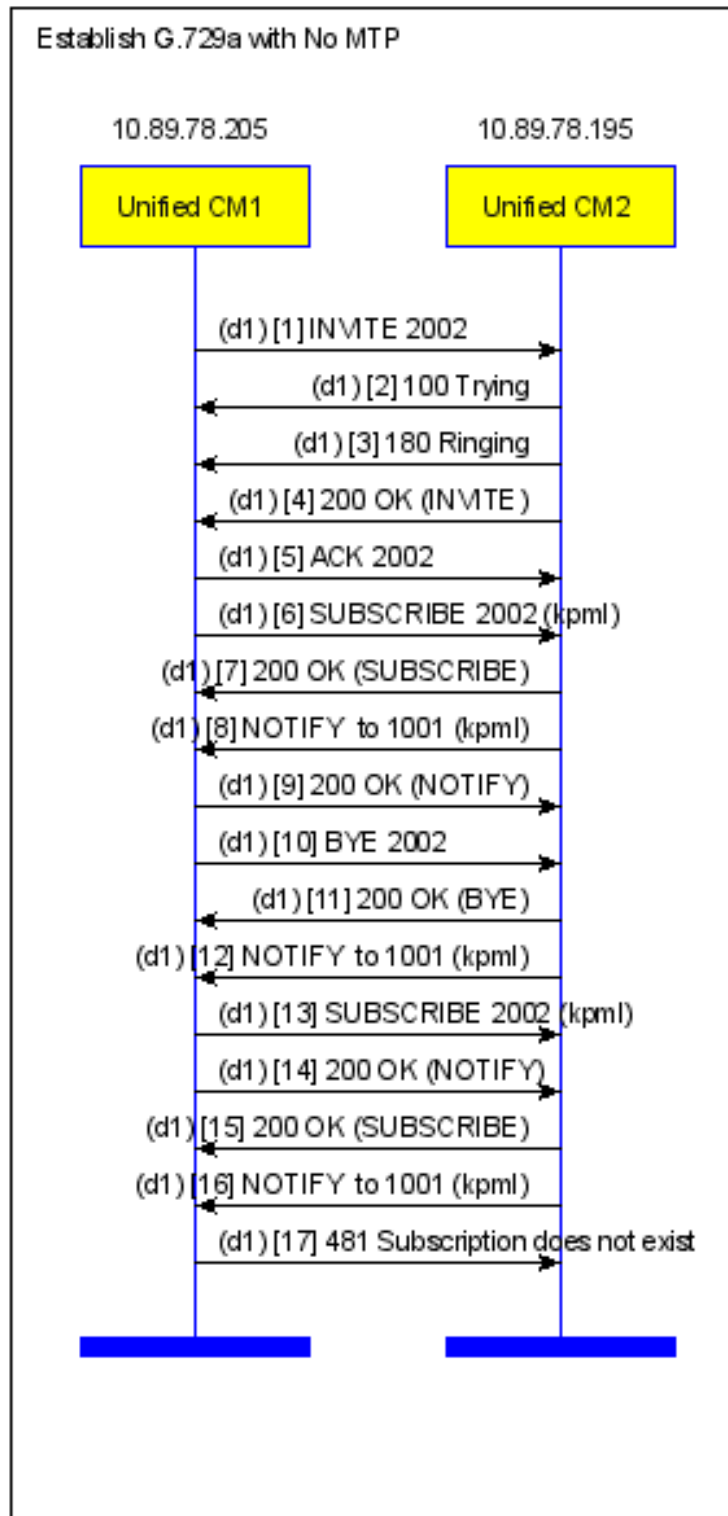
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK142756d06c7
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 00:12:05 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 3388816896-0000065536-0000000085-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 234

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.79.60
 t=0 0
 m=audio 16438 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK142756d06c7
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 00:12:05 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK142756d06c7
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Date: Thu, 02 Dec 2010 00:12:05 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK142756d06c7
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Date: Thu, 02 Dec 2010 00:12:05 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer

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P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 234

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 19502 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1434a2de60c
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Date: Thu, 02 Dec 2010 00:12:05 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[6] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1446dc3f459
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Date: Thu, 02 Dec 2010 00:12:06 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>

</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1446dc3f459
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Date: Thu, 02 Dec 2010 00:12:06 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[8] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1e812aee816
 From: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 To: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 00:12:06 GMT
 User-Agent: Cisco-CUCM8.5

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Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1e812aee816
 From: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 To: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 Date: Thu, 02 Dec 2010 00:12:06 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14564cf5db6
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Date: Thu, 02 Dec 2010 00:12:05 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14564cf5db6
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Date: Thu, 02 Dec 2010 00:12:15 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1e93e916984
 From: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 To: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 00:12:15 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1465c20cfc3
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Date: Thu, 02 Dec 2010 00:12:15 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1e93e916984
 From: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 To: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 Date: Thu, 02 Dec 2010 00:12:15 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[15] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1465c20cfc3
 From: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 To: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 Date: Thu, 02 Dec 2010 00:12:15 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[16] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1ea54c7f6af
 From: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 To: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 00:12:15 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[17] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1ea54c7f6af
 From: <sip:2002@10.89.78.195>;tag=12377~e811c00a-4a66-4296-a800-0718da03b731-28366574
 To: <sip:1001@10.89.78.205>;tag=162~1ebcd687-60ae-450a-823c-0469b2740097-28361082
 Date: Thu, 02 Dec 2010 00:12:15 GMT
 Call-ID: c9fd3e00-cf61e455-51-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**18.2 Establish G.729 with MTP**

Title: Establish G.729 with MTP

Description:

This feature allows for calls with pre-allocated MTP to be initiate with low bandwidth codecs such as G729.

The CM1 is configured with MTP required and the G.729a codec on SIP Trunk going to CM2. CM2 trunk has MTP Required with G.711ulaw codec on SIP Trunk going to CM1

External MTP is attached to CM1.

External MTP is attached to CM2.

Configuration:

Node = Unified CM1, IP = 10.89.79.205

Node = Unified CM2, IP = 10.89.79.195

Node = External MTP, IP = 10.89.79.60

Node = External MTP, IP = 10.89.79.59

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Scenario:

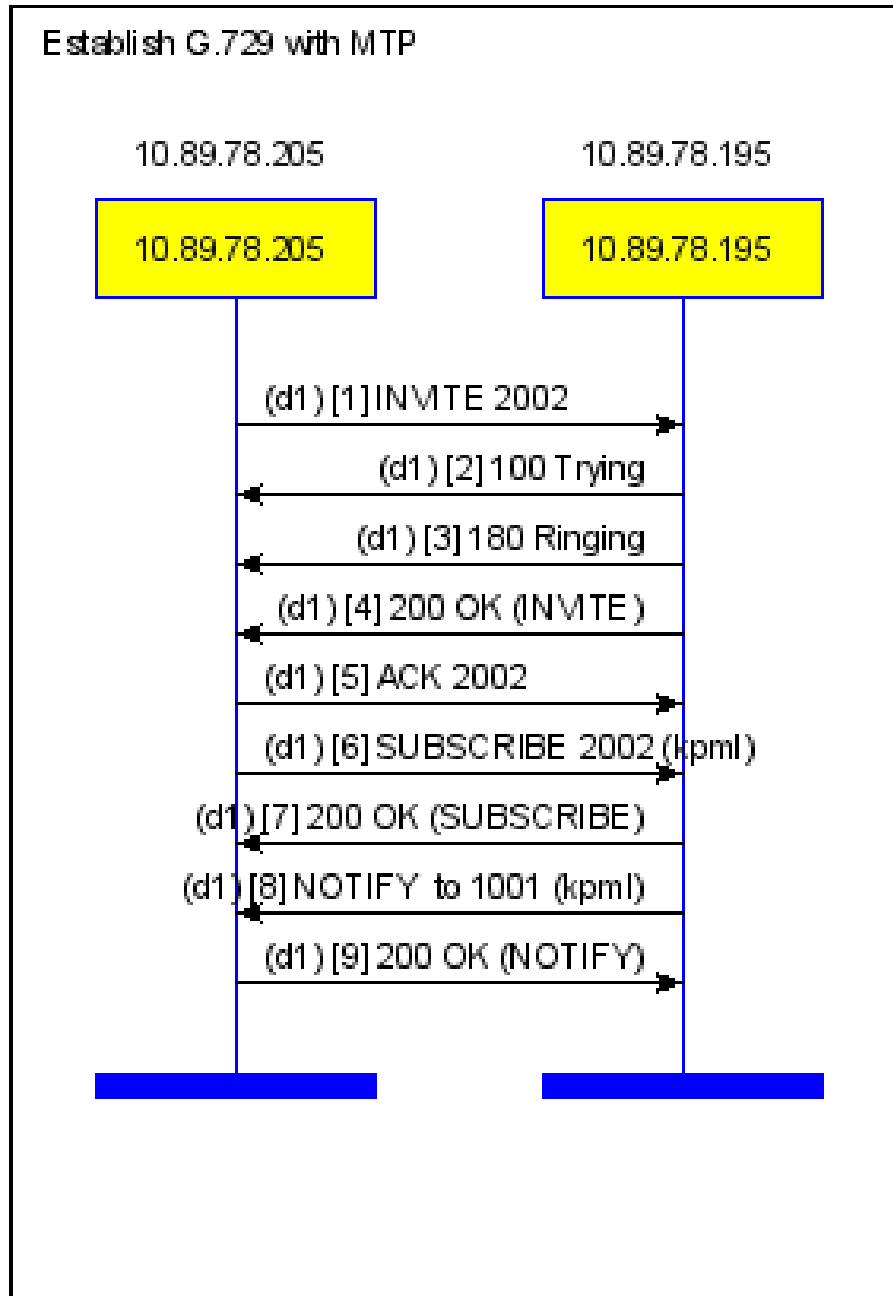
Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK147480d6d94
 From: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 00:24:23 GMT
 Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 2178882304-0000065536-0000000086-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 234

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.79.60
 t=0 0
 m=audio 17554 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK147480d6d94
 From: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 00:24:23 GMT
 Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK147480d6d94
 From: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
 To: <sip:2002@10.89.78.195>;tag=12391~e811c00a-4a66-4296-a800-0718da03b731-28366576
 Date: Thu, 02 Dec 2010 00:24:23 GMT
 Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK147480d6d94
 From: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
 To: <sip:2002@10.89.78.195>;tag=12391~e811c00a-4a66-4296-a800-0718da03b731-28366576
 Date: Thu, 02 Dec 2010 00:24:23 GMT
 Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer

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P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 234

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 27740 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK148c461e50
 From: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
 To: <sip:2002@10.89.78.195>;tag=12391~e811c00a-4a66-4296-a800-0718da03b731-28366576
 Date: Thu, 02 Dec 2010 00:24:23 GMT
 Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[6] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14967fcfb2d
 From: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
 To: <sip:2002@10.89.78.195>;tag=12391~e811c00a-4a66-4296-a800-0718da03b731-28366576
 Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Date: Thu, 02 Dec 2010 00:24:24 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14967fcfb2d
 From: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
 To: <sip:2002@10.89.78.195>;tag=12391~e811c00a-4a66-4296-a800-0718da03b731-28366576
 Date: Thu, 02 Dec 2010 00:24:24 GMT
 Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[8] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1eb514a289
 From: <sip:2002@10.89.78.195>;tag=12391~e811c00a-4a66-4296-a800-0718da03b731-28366576
 To: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
 Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 00:24:24 GMT
 User-Agent: Cisco-CUCM8.5

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Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1eb514a289
From: <sip:2002@10.89.78.195>;tag=12391~e811c00a-4a66-4296-a800-0718da03b731-28366576
To: <sip:1001@10.89.78.205>;tag=164~1ebcd687-60ae-450a-823c-0469b2740097-28361087
Date: Thu, 02 Dec 2010 00:24:24 GMT
Call-ID: 81df1b00-cf61e737-52-cd4e590a@10.89.78.205
CSeq: 101 NOTIFY
Content-Length: 0

CISCO CONFIDENTIAL**18.3 Delayed Media Call with No MTP**

Title: Delayed Media Call with No MTP

Description:

This feature allows for calls with pre-allocated MTP to be initiate with low bandwidth codecs such as G729.

The CM1 is not configured with MTP required on SIP Trunk going to CM2.
CM2 has MTP Required with G.711ulaw codec on SIP Trunk going to CM1

External MTP1 is attached to CCM1.
External MTP2 is attached to CCM2.

Configuration:

Node = Unified CM1, IP = 10.89.78.205
Node = Unified CM2, IP = 10.89.78.195
Node = External MTP, IP = 10.89.79.60
Node = External MTP, IP = 10.89.79.59

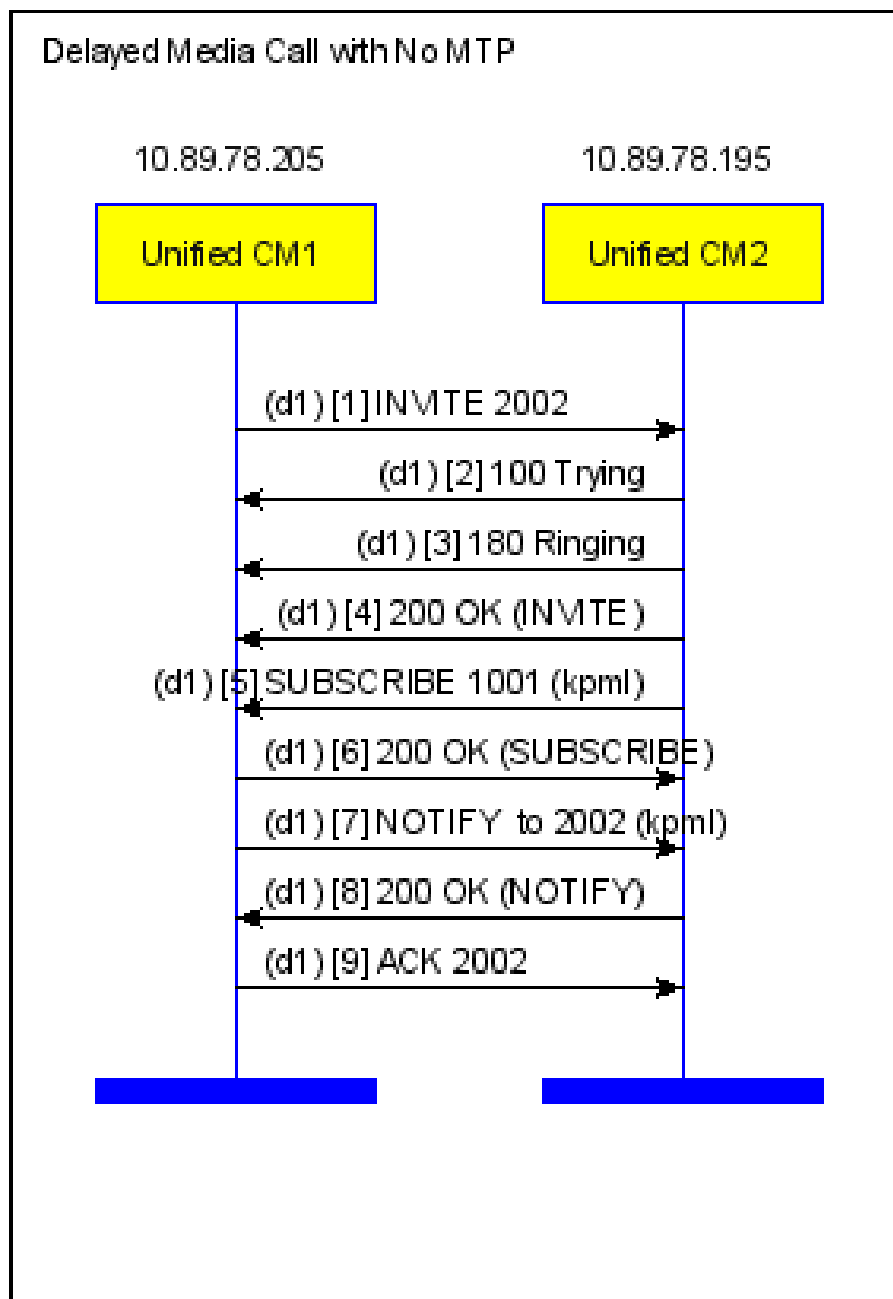
Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP
Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002
Phone B DN 2002 Answers
Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14c317f3592
 From: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 00:38:00 GMT
 Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1758947712-00000065536-0000000087-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14c317f3592
 From: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 00:38:00 GMT
 Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14c317f3592
 From: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
 To: <sip:2002@10.89.78.195>;tag=12407~e811c00a-4a66-4296-a800-0718da03b731-28366579
 Date: Thu, 02 Dec 2010 00:38:00 GMT
 Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14c317f3592
 From: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
 To: <sip:2002@10.89.78.195>;tag=12407~e811c00a-4a66-4296-a800-0718da03b731-28366579
 Date: Thu, 02 Dec 2010 00:38:00 GMT
 Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.89.79.59
 t=0 0
 m=audio 18890 RTP/AVP 0 101

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```
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SUBSCRIBE sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1ee18f08d83
From: <sip:2002@10.89.78.195>;tag=12407~e811c00a-4a66-4296-a800-0718da03b731-28366579
To: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
CSeq: 101 SUBSCRIBE
Date: Thu, 02 Dec 2010 00:38:01 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.195:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
<pattern interdigittimer="7260000" persist="persist">
  <regex tag="dtmf">[x*#ABCD]</regex>
</pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1ee18f08d83
From: <sip:2002@10.89.78.195>;tag=12407~e811c00a-4a66-4296-a800-0718da03b731-28366579
To: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
Date: Thu, 02 Dec 2010 00:38:01 GMT
Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
CSeq: 101 SUBSCRIBE
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] NOTIFY sip:10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14d7368c4b6
From: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
To: <sip:2002@10.89.78.195>;tag=12407~e811c00a-4a66-4296-a800-0718da03b731-28366579
Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Thu, 02 Dec 2010 00:38:01 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
P-Asserted-Identity: <sip:1001@10.89.78.205>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14d7368c4b6
From: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
To: <sip:2002@10.89.78.195>;tag=12407~e811c00a-4a66-4296-a800-0718da03b731-28366579
Date: Thu, 02 Dec 2010 00:38:01 GMT
Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
CSeq: 102 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14e515f1428
From: <sip:1001@10.89.78.205>;tag=166~1ebcd687-60ae-450a-823c-0469b2740097-28361090
To: <sip:2002@10.89.78.195>;tag=12407~e811c00a-4a66-4296-a800-0718da03b731-28366579
Date: Thu, 02 Dec 2010 00:38:00 GMT
Call-ID: 68d76980-cf61ea68-53-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
```

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Content-Type: application/sdp
Content-Length: 211

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 22650 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

CISCO CONFIDENTIAL**18.4 Delayed Media Call No Support**

Title: Delayed Media Call No Support

Description:

This feature allows for calls with pre-allocated MTP to be initiate with low bandwidth codecs such as G729.

The CM1 is configured with MTP required and G.729a codec on SIP Trunk going to CM2.
No MTP device is configured that supports G.729a,
CM2 trunk has no MTP Required checked.

External MTP is attached to CCM1

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Node = External MTP, IP = 10.89.79.60

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

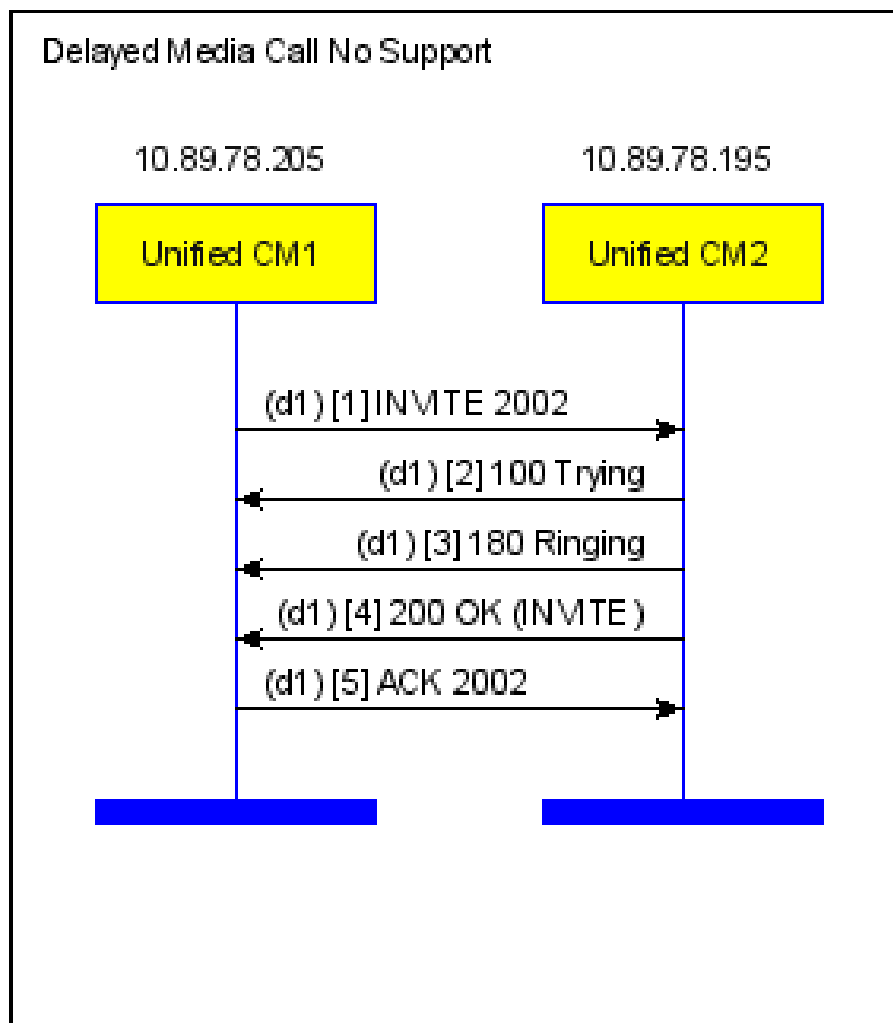
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK15256d24a59
 From: <sip:1001@10.89.78.205>;tag=168~1ebcd687-60ae-450a-823c-0469b2740097-28361092
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 01:06:46 GMT
 Call-ID: 6d9e1c80-cf61f126-54-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1839078528-0000065536-0000000088-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK15256d24a59
 From: <sip:1001@10.89.78.205>;tag=168~1ebcd687-60ae-450a-823c-0469b2740097-28361092
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 01:06:46 GMT
 Call-ID: 6d9e1c80-cf61f126-54-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK15256d24a59
 From: <sip:1001@10.89.78.205>;tag=168~1ebcd687-60ae-450a-823c-0469b2740097-28361092
 To: <sip:2002@10.89.78.195>;tag=12439~e811c00a-4a66-4296-a800-0718da03b731-28366582
 Date: Thu, 02 Dec 2010 01:06:46 GMT
 Call-ID: 6d9e1c80-cf61f126-54-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK15256d24a59
 From: <sip:1001@10.89.78.205>;tag=168~1ebcd687-60ae-450a-823c-0469b2740097-28361092
 To: <sip:2002@10.89.78.195>;tag=12439~e811c00a-4a66-4296-a800-0718da03b731-28366582
 Date: Thu, 02 Dec 2010 01:06:46 GMT
 Call-ID: 6d9e1c80-cf61f126-54-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 19966 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1536d9a2bab
From: <sip:1001@10.89.78.205>;tag=168~1ebcd687-60ae-450a-823c-0469b2740097-28361092
To: <sip:2002@10.89.78.195>;tag=12439~e811c00a-4a66-4296-a800-0718da03b731-28366582
Date: Thu, 02 Dec 2010 01:06:46 GMT
Call-ID: 6d9e1c80-cf61f126-54-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 31484 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

CISCO CONFIDENTIAL**19. PAI****19.1 Basic Outgoing Call with default identity configurations on SIP Trunk**

Title: Basic Outgoing Call with default identity configurations on SIP Trunk

Description:

Basic Unified CM to Unified CM SIP Trunk Call with default configurations, Asserted-Identity[v] & Remote-Party-Id[v]

The following basic call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2.

The Unified CM1 sends an INVITE over the SIP Trunk and Unified CM2 sends 100, 180 and 200 SIP Response messages.

The INVITE request carries a Remote-Party-Id & Asserted-Identity headers. There is "no" Privacy header sent as Display name & Number are not restricted.

The 180 & 200 response messages carry the Alerting & Connected Name in Remote-Party-Id & Asserted-Identity headers.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [v] Asserted-Identity [v], SIP Privacy= Default, Asserted-Type=Default

Scenario:

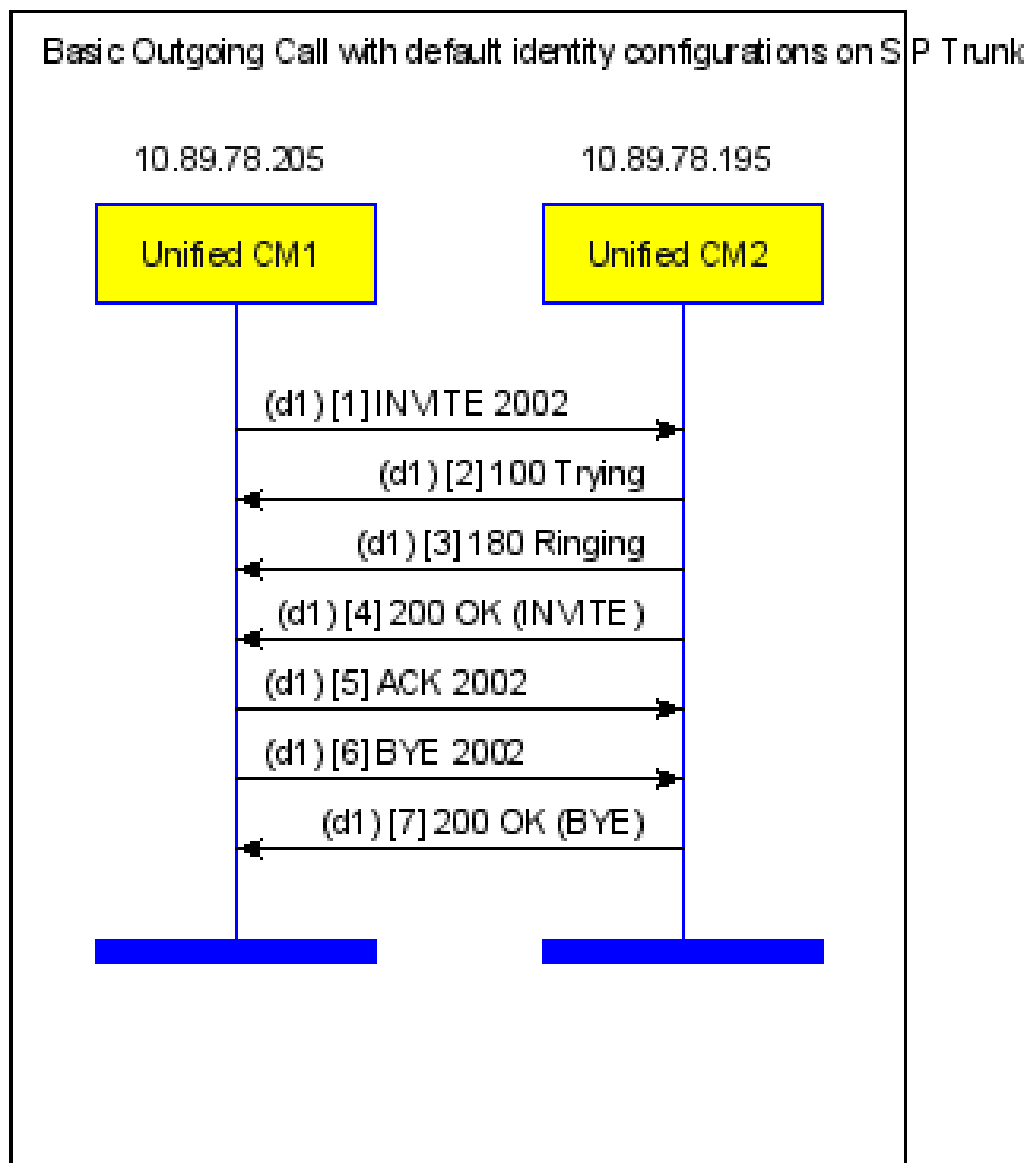
Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

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Phone B DN 2002 Answers

Phone A goes onHook

End of Scenario



CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK63241747cc
 From: <sip:1001@10.89.78.205>;tag=80~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309462
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 22:27:45 GMT
 Call-ID: 3e588c00-ccf13ee1-32-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1045990400-00000065536-0000000045-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK63241747cc
 From: <sip:1001@10.89.78.205>;tag=80~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309462
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 22:27:45 GMT
 Call-ID: 3e588c00-ccf13ee1-32-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK63241747cc
 From: <sip:1001@10.89.78.205>;tag=80~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309462
 To: <sip:2002@10.89.78.195>;tag=3253~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316680
 Date: Mon, 01 Nov 2010 22:27:45 GMT
 Call-ID: 3e588c00-ccf13ee1-32-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK63241747cc
 From: <sip:1001@10.89.78.205>;tag=80~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309462
 To: <sip:2002@10.89.78.195>;tag=3253~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316680
 Date: Mon, 01 Nov 2010 22:27:45 GMT
 Call-ID: 3e588c00-ccf13ee1-32-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 28694 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK646c722dac
From: <sip:1001@10.89.78.205>;tag=80~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309462
To: <sip:2002@10.89.78.195>;tag=3253~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316680
Date: Mon, 01 Nov 2010 22:27:45 GMT
Call-ID: 3e588c00-ccf13ee1-32-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 18664 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6527c1ccad
From: <sip:1001@10.89.78.205>;tag=80~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309462
To: <sip:2002@10.89.78.195>;tag=3253~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316680
Date: Mon, 01 Nov 2010 22:27:45 GMT
Call-ID: 3e588c00-ccf13ee1-32-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 102 BYE
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6527c1ccad
From: <sip:1001@10.89.78.205>;tag=80~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309462
To: <sip:2002@10.89.78.195>;tag=3253~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316680
Date: Mon, 01 Nov 2010 22:27:52 GMT
Call-ID: 3e588c00-ccf13ee1-32-cd4e590a@10.89.78.205
CSeq: 102 BYE
Content-Length: 0

```


CISCO CONFIDENTIAL**19.2 Basic Outgoing Call with identity in only From header**

Title: Basic Outgoing Call with identity in only From header

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [] i.e no RPID or Asserted-Identity.

The following basic call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2.

The Unified CM1 sends an INVITE over the SIP Trunk for inviting Unified CM2 to the call.

The INVITE request carries a Display Name/Number identity in a From header with no Remote-Party-Id or Asserted-Identity headers.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [] Asserted-Identity [], SIP Privacy=Default, Asserted-Type=Default

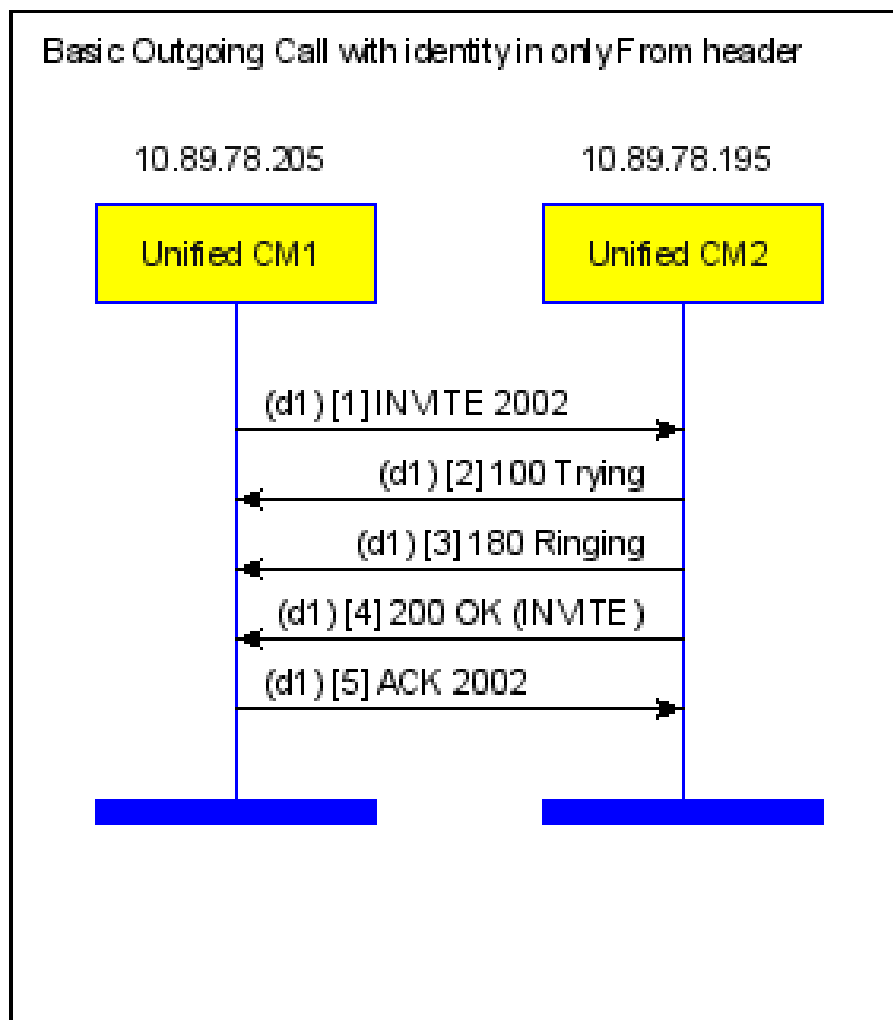
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B answers the call

Phone A goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6041482d79
 From: <sip:1001@10.89.78.205>;tag=78~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309460
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 22:25:09 GMT
 Call-ID: e15cd600-ccf13e45-31-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3780957696-0000065536-0000000044-3444463882
 Session-Expires: 1800
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6041482d79
 From: <sip:1001@10.89.78.205>;tag=78~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309460
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 22:25:10 GMT
 Call-ID: e15cd600-ccf13e45-31-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6041482d79
 From: <sip:1001@10.89.78.205>;tag=78~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309460
 To: <sip:2002@10.89.78.195>;tag=3250~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316678
 Date: Mon, 01 Nov 2010 22:25:10 GMT
 Call-ID: e15cd600-ccf13e45-31-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6041482d79
 From: <sip:1001@10.89.78.205>;tag=78~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309460
 To: <sip:2002@10.89.78.195>;tag=3250~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316678
 Date: Mon, 01 Nov 2010 22:25:10 GMT
 Call-ID: e15cd600-ccf13e45-31-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 29630 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 aptime:20

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```

a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK611ccf77a1

From: <sip:1001@10.89.78.205>;tag=78~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309460

To: <sip:2002@10.89.78.195>;tag=3250~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316678

Date: Mon, 01 Nov 2010 22:25:09 GMT

Call-ID: e15cd600-ccf13e45-31-cd4e590a@10.89.78.205

Max-Forwards: 70

CSeq: 101 ACK

Allow-Events: presence, kpml

Content-Type: application/sdp

Content-Length: 211

v=0

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205

s=SIP Call

c=IN IP4 10.13.5.217

t=0 0

m=audio 19600 RTP/AVP 9 101

a=rtpmap:9 G722/8000

a=ptime:20

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

CISCO CONFIDENTIAL**19.3 Basic Outgoing Call with only Remote-Party-Id**

Title: Basic Outgoing Call with only Remote-Party-Id

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [v] Asserted-Identity []

The following basic call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2.

The Unified CM1 sends an INVITE over the SIP Trunk for inviting Unified CM2 to the call.

The INVITE request carries a Remote-Party-Id header & no Asserted-Identity header.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

a) route pattern 2.XXXX

b) Has destination port configured to be 5060

c) Remote-Party-Id [v] Asserted-Identity [], SIP Privacy= Default, Asserted-Type=Default

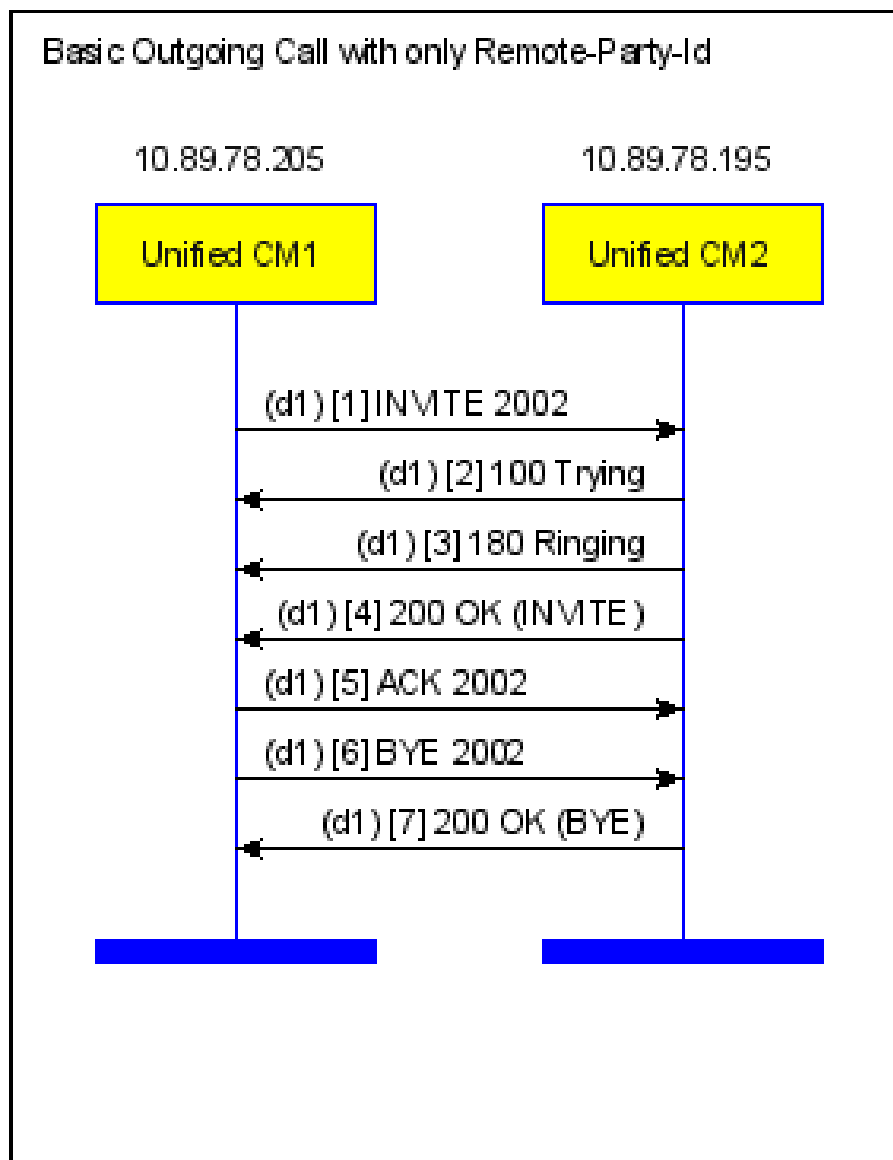
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B answers the call

Phone A goes onHook

End of Scenario



CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6648f309b4
 From: <sip:1001@10.89.78.205>;tag=82~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309464
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 22:30:40 GMT
 Call-ID: a6a76d80-ccf13f90-33-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2795990400-00000065536-0000000046-3444463882
 Session-Expires: 1800
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6648f309b4
 From: <sip:1001@10.89.78.205>;tag=82~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309464
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 22:30:40 GMT
 Call-ID: a6a76d80-ccf13f90-33-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6648f309b4
 From: <sip:1001@10.89.78.205>;tag=82~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309464
 To: <sip:2002@10.89.78.195>;tag=3257~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316682
 Date: Mon, 01 Nov 2010 22:30:40 GMT
 Call-ID: a6a76d80-ccf13f90-33-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6648f309b4
 From: <sip:1001@10.89.78.205>;tag=82~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309464
 To: <sip:2002@10.89.78.195>;tag=3257~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316682
 Date: Mon, 01 Nov 2010 22:30:40 GMT
 Call-ID: a6a76d80-ccf13f90-33-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 29884 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000

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```

a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK67343d0a1d
From: <sip:1001@10.89.78.205>;tag=82~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309464
To: <sip:2002@10.89.78.195>;tag=3257~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316682
Date: Mon, 01 Nov 2010 22:30:40 GMT
Call-ID: a6a76d80-ccf13f90-33-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 19854 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6869efa6c8
From: <sip:1001@10.89.78.205>;tag=82~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309464
To: <sip:2002@10.89.78.195>;tag=3257~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316682
Date: Mon, 01 Nov 2010 22:30:40 GMT
Call-ID: a6a76d80-ccf13f90-33-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[7] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6869efa6c8
From: <sip:1001@10.89.78.205>;tag=82~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309464
To: <sip:2002@10.89.78.195>;tag=3257~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316682
Date: Mon, 01 Nov 2010 22:30:46 GMT
Call-ID: a6a76d80-ccf13f90-33-cd4e590a@10.89.78.205
CSeq: 102 BYE
Content-Length: 0

```


CISCO CONFIDENTIAL**19.4 Basic Outgoing Call with identity in P-Preferred-Identity header.**

Title: Basic Outgoing Call with identity in P-Preferred-Identity header.

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v],
Asserted-Type=PPI

The following basic call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2.

The Unified CM1 sends an INVITE over the SIP Trunk for inviting Unified CM2 to the call.
The INVITE request carries a P-Preferred-Identity header.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [] Asserted-Identity [v], SIP Privacy= Default, Asserted-Type=PPI

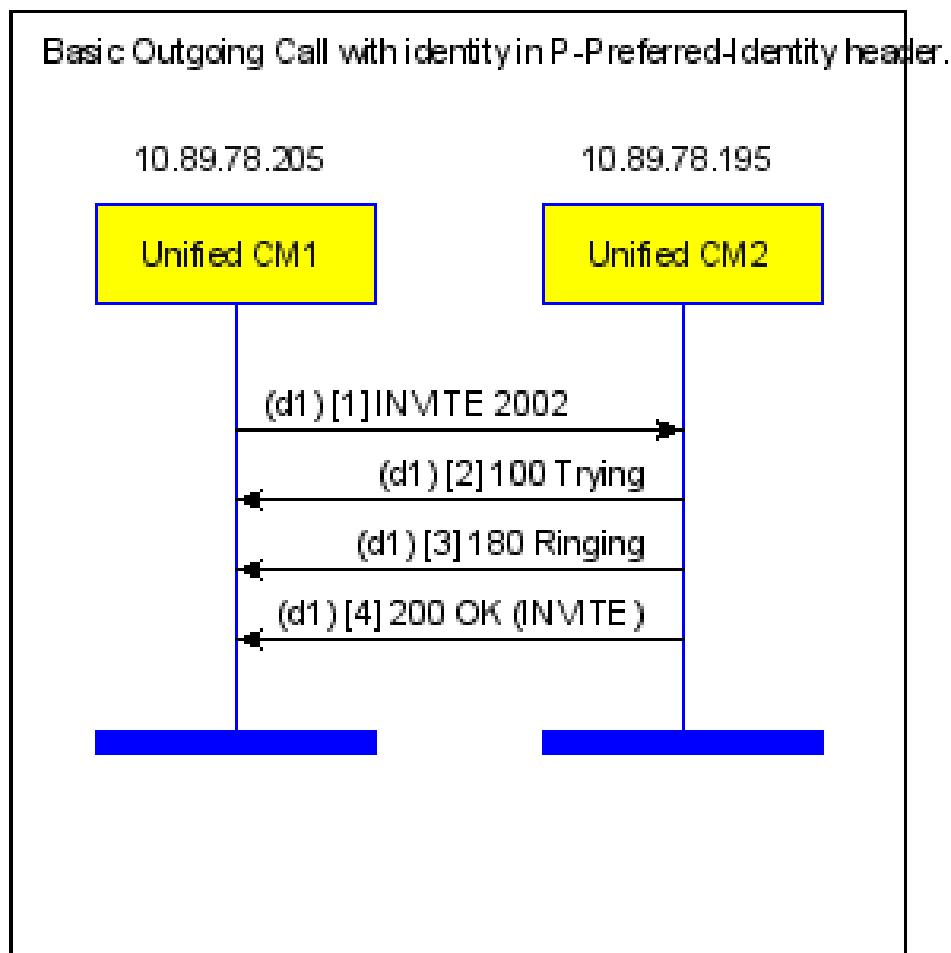
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B answers the call

Phone A goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK692a943bea
 From: <sip:1001@10.89.78.205>;tag=84~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309466
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 22:34:24 GMT
 Call-ID: 2c2b1d80-ccf14070-34-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0741023104-0000065536-0000000047-3444463882
 Session-Expires: 1800
 P-Preferred-Identity: <sip:1001@10.89.78.205>
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK692a943bea
 From: <sip:1001@10.89.78.205>;tag=84~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309466
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 22:34:24 GMT
 Call-ID: 2c2b1d80-ccf14070-34-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK692a943bea
 From: <sip:1001@10.89.78.205>;tag=84~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309466
 To: <sip:2002@10.89.78.195>;tag=3261~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316684
 Date: Mon, 01 Nov 2010 22:34:24 GMT
 Call-ID: 2c2b1d80-ccf14070-34-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK692a943bea
 From: <sip:1001@10.89.78.205>;tag=84~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309466
 To: <sip:2002@10.89.78.195>;tag=3261~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316684
 Date: Mon, 01 Nov 2010 22:34:24 GMT
 Call-ID: 2c2b1d80-ccf14070-34-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 19496 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000

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```
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

CISCO CONFIDENTIAL**19.5 Basic Incoming SIP TrunkCall, sending 180/200 with Asserted-Identity & Privacy:id**

Title: Basic Incoming SIP TrunkCall, sending 180/200 with Asserted-Identity & Privacy:id

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v] and SIP Privacy =Id

The following basic call flow illustrates the SIP messaging for an incoming SIP Trunk call to a Unified CM1 from a remote Unified CM2.

The Unified CM1 is shown sending 180 and 200 OK for to Unified CM2.

The 180 and 200 OK response messages carries a Privacy & Asserted-Identity headers. Based on SIP

Privacy=Id configuration, there is a Privacy:id header sent

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [] Asserted-Identity [v], Asserted-Type=Default, SIP Privacy=Id

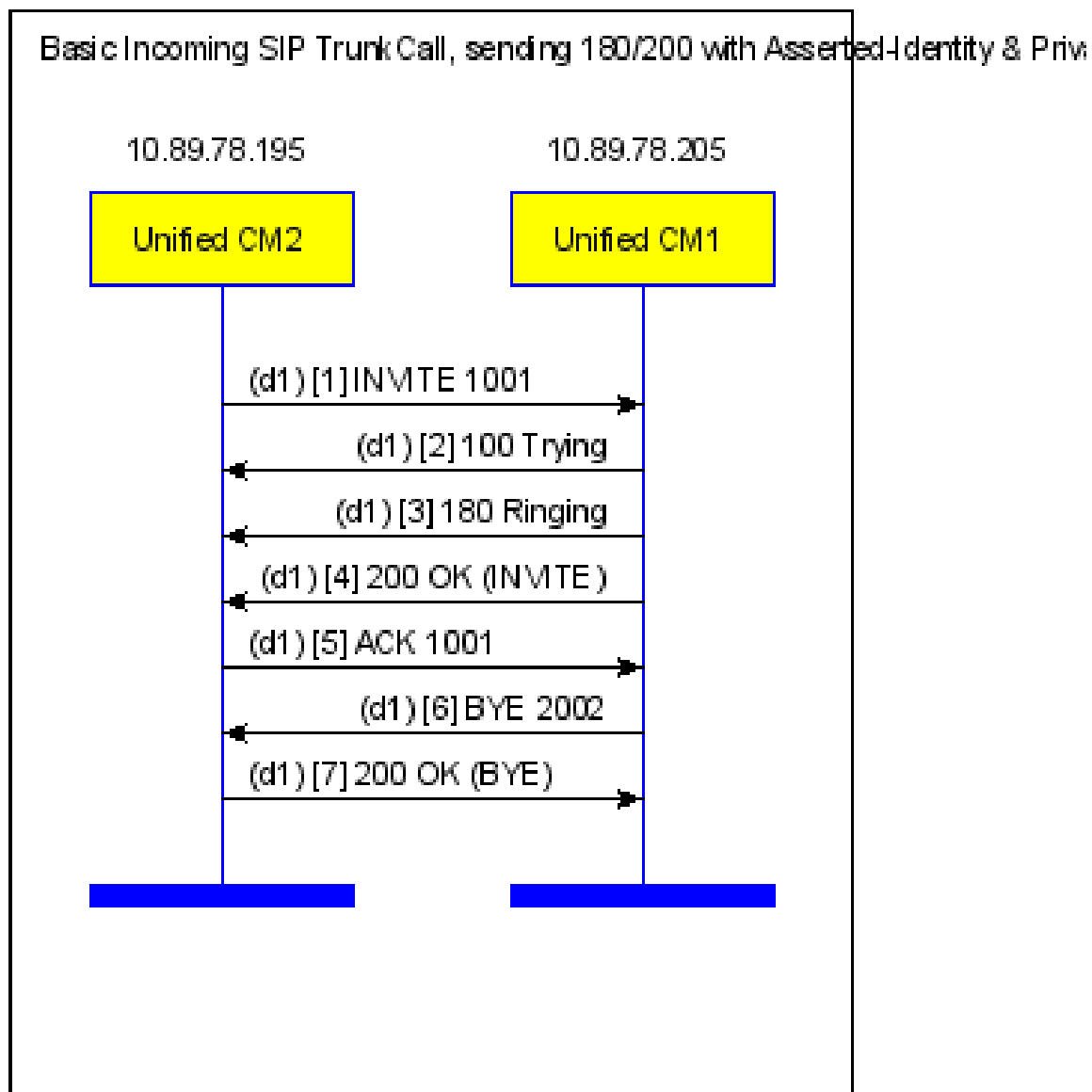
Scenario:

Phone Phone B DN 2002 calls A DN 1001 over the SIP Trunk by dialing 11001

Phone A answers the call

Phone A goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK906b4d96b1
 From: <sip:2002@10.89.78.195>;tag=3267~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316687
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:42:07 GMT
 Call-ID: 40234f00-ccf1423f-13-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1076055808-00000065536-0000000006-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK906b4d96b1
 From: <sip:2002@10.89.78.195>;tag=3267~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316687
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:42:07 GMT
 Call-ID: 40234f00-ccf1423f-13-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK906b4d96b1
 From: <sip:2002@10.89.78.195>;tag=3267~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316687
 To: <sip:1001@10.89.78.205>;tag=86~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309467
 Date: Mon, 01 Nov 2010 22:42:07 GMT
 Call-ID: 40234f00-ccf1423f-13-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: id
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK906b4d96b1
 From: <sip:2002@10.89.78.195>;tag=3267~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316687
 To: <sip:1001@10.89.78.205>;tag=86~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309467
 Date: Mon, 01 Nov 2010 22:42:07 GMT
 Call-ID: 40234f00-ccf1423f-13-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: id
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 22996 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[5] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9152b927d7
From: <sip:2002@10.89.78.195>;tag=3267~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316687
To: <sip:1001@10.89.78.205>;tag=86~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309467
Date: Mon, 01 Nov 2010 22:42:07 GMT
Call-ID: 40234f00-ccf1423f-13-c34e590a@10.89.78.195
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 16652 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6ca8d94e9
From: <sip:1001@10.89.78.205>;tag=86~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309467
To: <sip:2002@10.89.78.195>;tag=3267~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316687
Date: Mon, 01 Nov 2010 22:42:09 GMT
Call-ID: 40234f00-ccf1423f-13-c34e590a@10.89.78.195
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 101 BYE
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[7] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6ca8d94e9
From: <sip:1001@10.89.78.205>;tag=86~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309467
To: <sip:2002@10.89.78.195>;tag=3267~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316687
Date: Mon, 01 Nov 2010 22:42:17 GMT
Call-ID: 40234f00-ccf1423f-13-c34e590a@10.89.78.195
CSeq: 101 BYE
Content-Length: 0

```


CISCO CONFIDENTIAL**19.6 Incoming SIP TrunkCall, sending identity in Asserted-Identity with Privacy:none**

Title: Incoming SIP TrunkCall, sending identity in Asserted-Identity with Privacy:none

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v] and SIP Privacy =None

The following basic call flow illustrates the SIP messaging for an incoming SIP Trunk call to a Unified CM1 from a remote Unified CM2.

The Unified CM1 is shown sending 180 and 200 OK for to Unified CM2.

The 180 and 200 OK response messages carries an identity in Asserted-Identity header. Based on SIP Privacy=None configuration, there is a Privacy:none header sent

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [] Asserted-Identity [v], Asserted-Type=Default, SIP Privacy=None

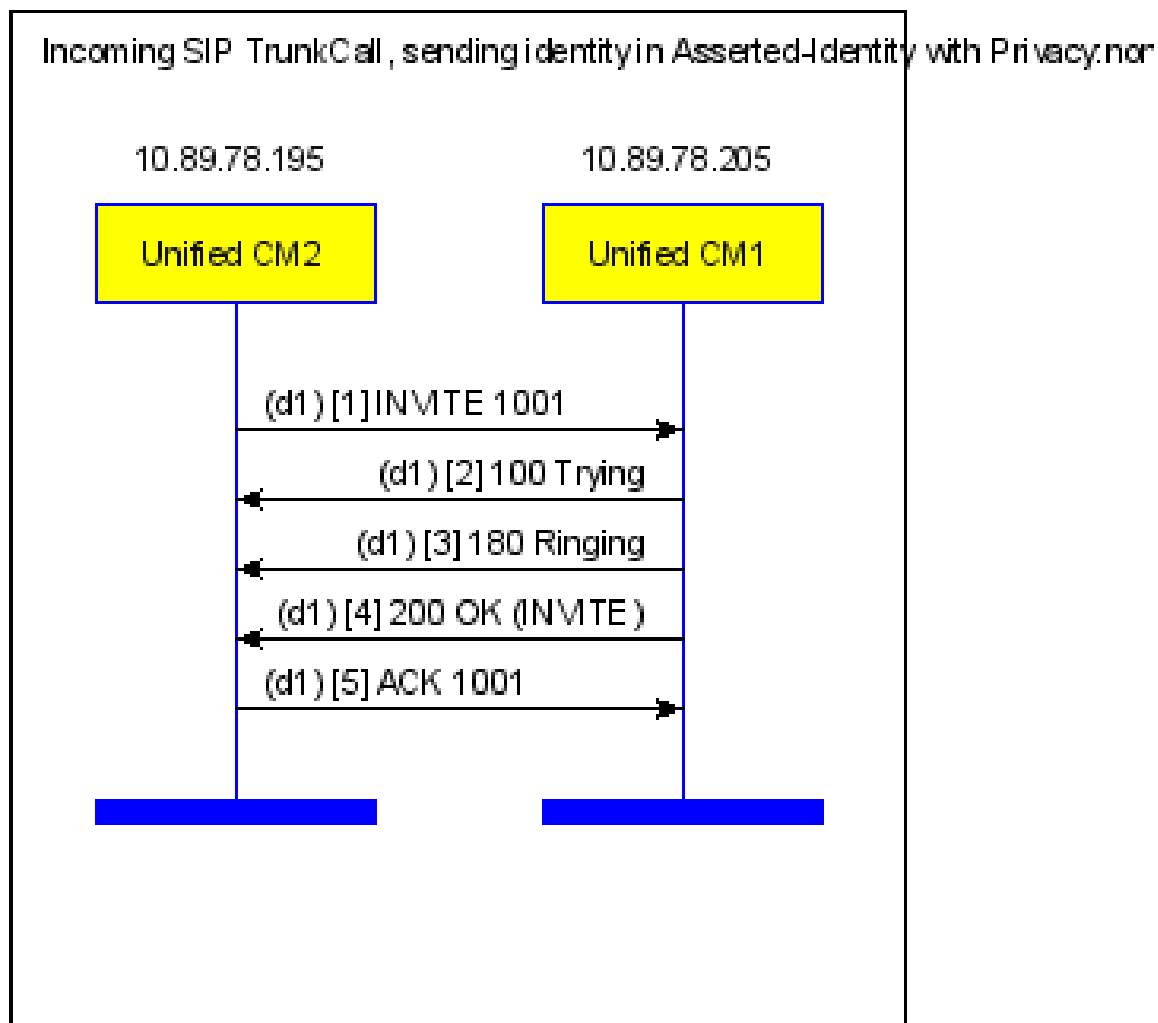
Scenario:

Phone Phone B DN 2002 calls A DN 1001 over the SIP Trunk by dialing 11001

Phone A answers the call

Phone A goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9219c450fd
 From: <sip:2002@10.89.78.195>;tag=3271~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316689
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:46:31 GMT
 Call-ID: dd7e8300-ccf14347-14-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3716055808-00000065536-0000000007-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9219c450fd
 From: <sip:2002@10.89.78.195>;tag=3271~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316689
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:46:31 GMT
 Call-ID: dd7e8300-ccf14347-14-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9219c450fd
 From: <sip:2002@10.89.78.195>;tag=3271~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316689
 To: <sip:1001@10.89.78.205>;tag=88~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309469
 Date: Mon, 01 Nov 2010 22:46:31 GMT
 Call-ID: dd7e8300-ccf14347-14-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: none
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9219c450fd
 From: <sip:2002@10.89.78.195>;tag=3271~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316689
 To: <sip:1001@10.89.78.205>;tag=88~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309469
 Date: Mon, 01 Nov 2010 22:46:31 GMT
 Call-ID: dd7e8300-ccf14347-14-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: none
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 16796 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

```

[diagram] Call-ID: [prev][next]
[5] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK935dafa54d
From: <sip:2002@10.89.78.195>;tag=3271~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316689
To: <sip:1001@10.89.78.205>;tag=88~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309469
Date: Mon, 01 Nov 2010 22:46:31 GMT
Call-ID: dd7e8300-ccf14347-14-c34e590a@10.89.78.195
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 26836 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

CISCO CONFIDENTIAL**19.7 Basic Incoming SIP TrunkCall**

Title: Basic Incoming SIP TrunkCall

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [V] Asserted-Identity [v] and

SIP Privacy =Id

The following basic call flow illustrates the SIP messaging for an incoming SIP Trunk call to a Unified CM1 from a remote Unified CM2.

The Unified CM1 is shown sending 180 and 200 OK for to Unified CM2.

The 180 and 200 OK response messages carries a Remote-Party-Id & Asserted-Identity headers.

Based on SIP Privacy=Id configuration, there is a Privacy:id header sent

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

a) route pattern 2.XXXX

b) Has destination port configured to be 5060

c) Remote-Party-Id [v] Asserted-Identity [v], Asserted-Type=Default, SIP Privacy=Id

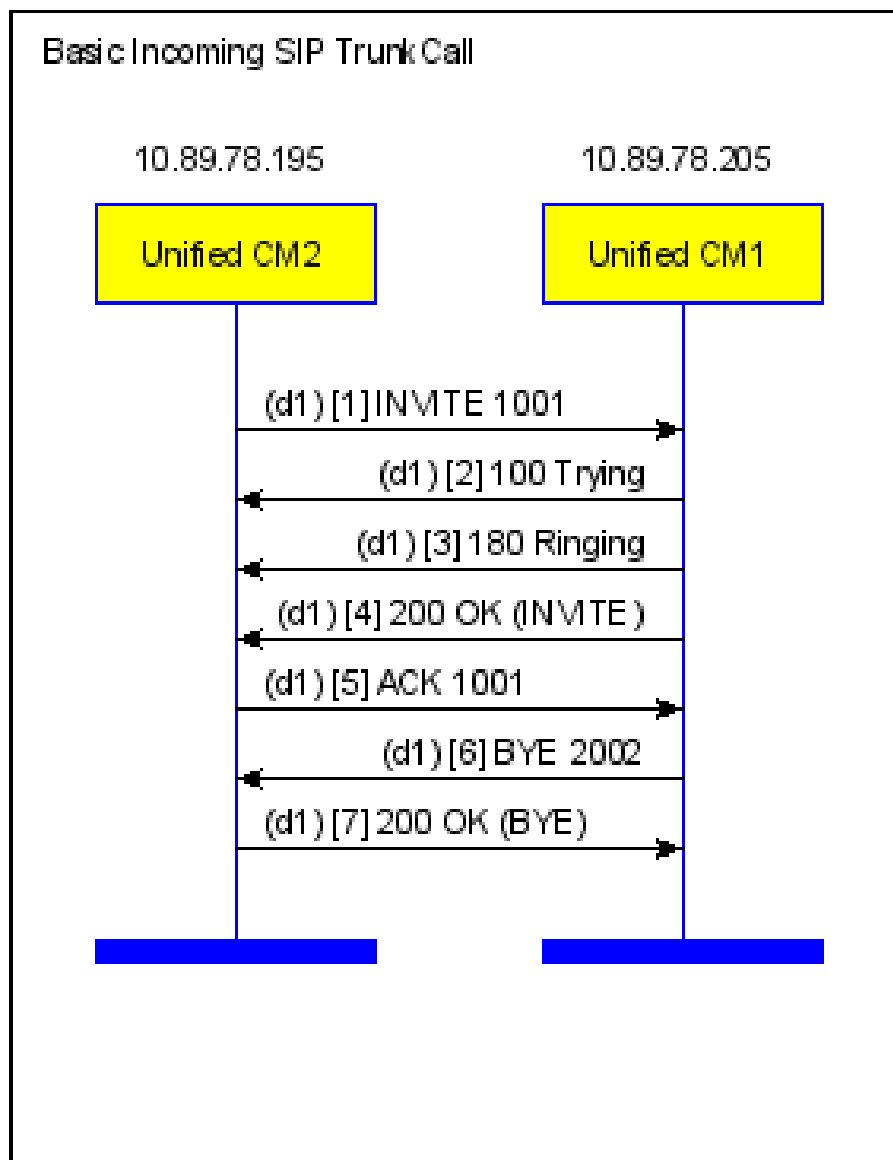
Scenario:

Phone Phone B DN 2002 calls A DN 1001 over the SIP Trunk by dialing 11001

PhoneA answers the call

PhoneA goes onHook

End of Scenario

CISCO CONFIDENTIAL

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK944e5c749d
 From: <sip:2002@10.89.78.195>;tag=3274~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316691
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:49:10 GMT
 Call-ID: 3c43fc80-ccf143e6-15-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1011088512-00000065536-0000000008-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK944e5c749d
 From: <sip:2002@10.89.78.195>;tag=3274~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316691
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:49:10 GMT
 Call-ID: 3c43fc80-ccf143e6-15-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK944e5c749d
 From: <sip:2002@10.89.78.195>;tag=3274~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316691
 To: <sip:1001@10.89.78.205>;tag=90~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309471
 Date: Mon, 01 Nov 2010 22:49:10 GMT
 Call-ID: 3c43fc80-ccf143e6-15-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: id
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK944e5c749d
 From: <sip:2002@10.89.78.195>;tag=3274~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316691
 To: <sip:1001@10.89.78.205>;tag=90~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309471
 Date: Mon, 01 Nov 2010 22:49:10 GMT
 Call-ID: 3c43fc80-ccf143e6-15-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: id
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205

s=SIP Call

c=IN IP4 10.13.5.217

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```
t=0 0
m=audio 32552 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[5] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK9551a52d16
 From: <sip:2002@10.89.78.195>;tag=3274~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316691
 To: <sip:1001@10.89.78.205>;tag=90~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309471
 Date: Mon, 01 Nov 2010 22:49:10 GMT
 Call-ID: 3c43fc80-ccf143e6-15-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 26210 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6e3ad38ad
 From: <sip:1001@10.89.78.205>;tag=90~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309471
 To: <sip:2002@10.89.78.195>;tag=3274~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316691
 Date: Mon, 01 Nov 2010 22:49:12 GMT
 Call-ID: 3c43fc80-ccf143e6-15-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 101 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6e3ad38ad
 From: <sip:1001@10.89.78.205>;tag=90~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309471
 To: <sip:2002@10.89.78.195>;tag=3274~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316691
 Date: Mon, 01 Nov 2010 22:49:16 GMT
 Call-ID: 3c43fc80-ccf143e6-15-c34e590a@10.89.78.195
 CSeq: 101 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**19.8 Incoming SIP TrunkCall, sending 180, 200 without any identity headers**

Title: Incoming SIP TrunkCall, sending 180, 200 without any identity headers

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity []

The following basic call flow illustrates the SIP messaging for an incoming SIP Trunk call to a Unified CM1 from a remote Unified CM2.

The Unified CM1 is shown sending 180 and 200 OK for to Unified CM2.

The 180 and 200 OK response messages doesn't carry Remote-Party-Id or Asserted-Identity headers.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [], Asserted-Identity [], Asserted-Type=Default, SIP Privacy=Default

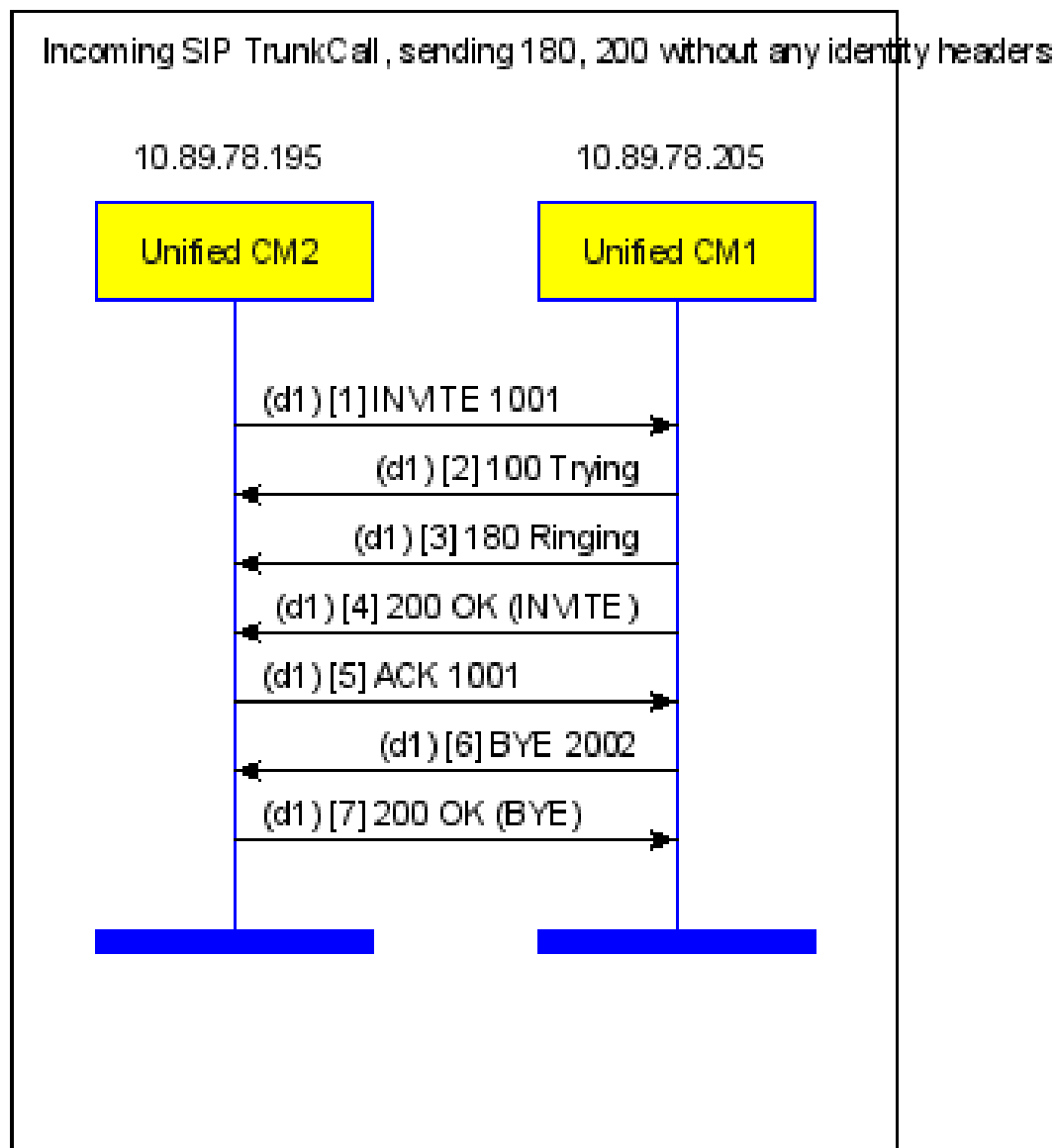
Scenario:

Phone B DN 2002 calls A DN 1001 over the SIP Trunk by dialing 11001

Phone A answers the call

Phone A goes onHook

End of Scenario

CISCO CONFIDENTIAL

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK961735a5c7
 From: <sip:2002@10.89.78.195>;tag=3278~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316693
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:52:18 GMT
 Call-ID: ac528280-ccf144a2-16-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2891088512-0000065536-0000000009-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK961735a5c7
 From: <sip:2002@10.89.78.195>;tag=3278~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316693
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:52:18 GMT
 Call-ID: ac528280-ccf144a2-16-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK961735a5c7
 From: <sip:2002@10.89.78.195>;tag=3278~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316693
 To: <sip:1001@10.89.78.205>;tag=92~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309473
 Date: Mon, 01 Nov 2010 22:52:18 GMT
 Call-ID: ac528280-ccf144a2-16-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: id
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK961735a5c7
 From: <sip:2002@10.89.78.195>;tag=3278~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316693
 To: <sip:1001@10.89.78.205>;tag=92~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309473
 Date: Mon, 01 Nov 2010 22:52:18 GMT
 Call-ID: ac528280-ccf144a2-16-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: id
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217

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```
t=0 0
m=audio 18912 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[5] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK97fec7c19
 From: <sip:2002@10.89.78.195>;tag=3278~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316693
 To: <sip:1001@10.89.78.205>;tag=92~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309473
 Date: Mon, 01 Nov 2010 22:52:18 GMT
 Call-ID: ac528280-ccf144a2-16-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 28952 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6f6b9b1d11
 From: <sip:1001@10.89.78.205>;tag=92~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309473
 To: <sip:2002@10.89.78.195>;tag=3278~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316693
 Date: Mon, 01 Nov 2010 22:52:23 GMT
 Call-ID: ac528280-ccf144a2-16-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 101 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6f6b9b1d11
 From: <sip:1001@10.89.78.205>;tag=92~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309473
 To: <sip:2002@10.89.78.195>;tag=3278~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316693
 Date: Mon, 01 Nov 2010 22:52:28 GMT
 Call-ID: ac528280-ccf144a2-16-c34e590a@10.89.78.195
 CSeq: 101 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**19.9 Basic Incoming SIP TrunkCall, sending PPI in outgoing 180/200**

Title: Basic Incoming SIP TrunkCall, sending PPI in outgoing 180/200

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v], Asserted-Type=PPI & SIP Privacy=Default

The following basic call flow illustrates the SIP messaging for an incoming SIP Trunk call to a Unified CM1 from a remote Unified CM2.

The Unified CM1 is shown sending 180 and 200 OK for to Unified CM2.

The 180 and 200 OK response messages carry P-Preferred-Identity header with Alerting & Connected Name.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [] Asserted-Identity [v], Asserted-Type=PPI, SIP Privacy=Default

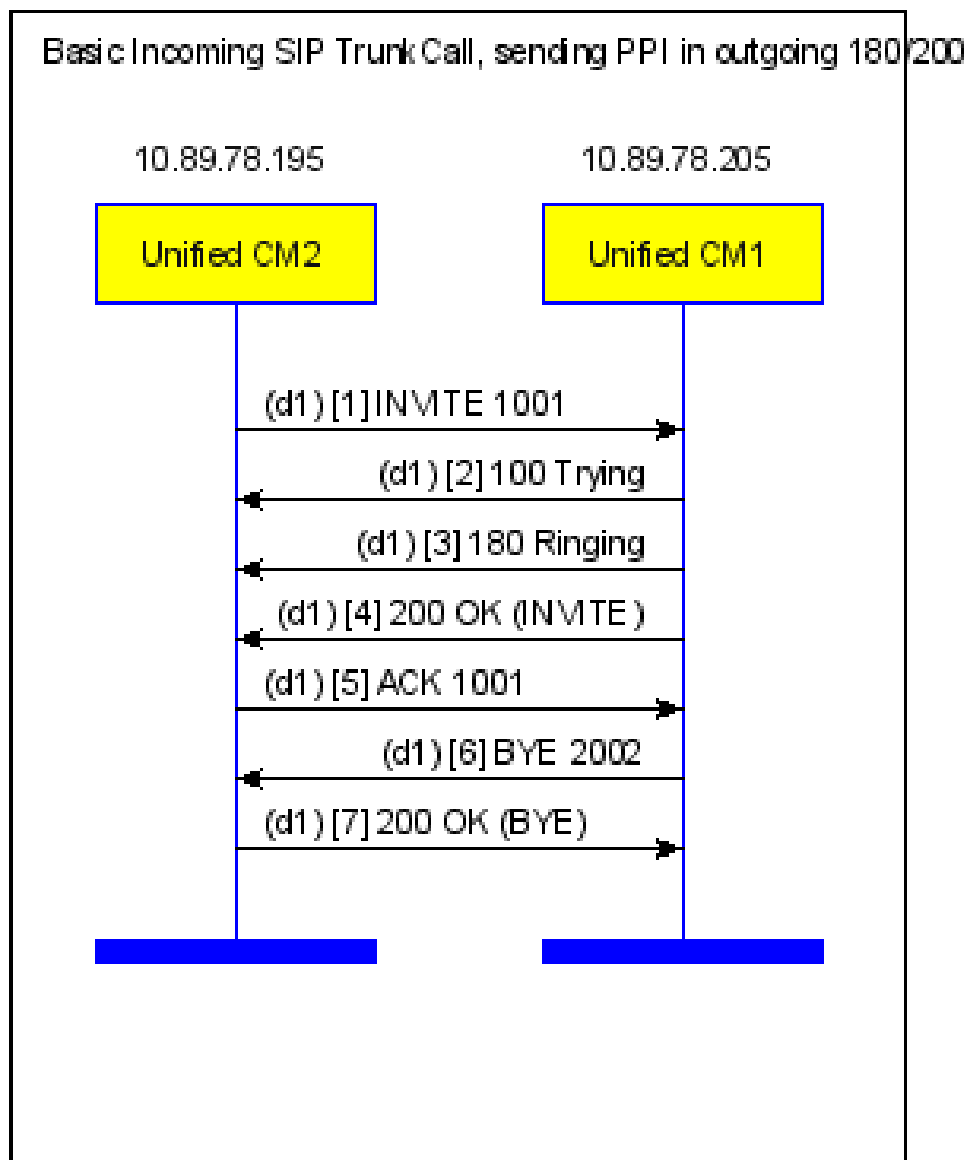
Scenario:

Phone Phone B DN 2002 calls A DN 1001 over the SIP Trunk by dialing 11001

Phone A answers the call

Phone A goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1001@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK986ec5fed6
 From: <sip:2002@10.89.78.195>;tag=3283~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316695
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:57:40 GMT
 Call-ID: 6c3fcf80-ccf145e4-17-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1816121216-0000065536-0000000010-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK986ec5fed6
 From: <sip:2002@10.89.78.195>;tag=3283~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316695
 To: <sip:1001@10.89.78.205>
 Date: Mon, 01 Nov 2010 22:57:40 GMT
 Call-ID: 6c3fcf80-ccf145e4-17-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK986ec5fed6
 From: <sip:2002@10.89.78.195>;tag=3283~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316695
 To: <sip:1001@10.89.78.205>;tag=94-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309475
 Date: Mon, 01 Nov 2010 22:57:40 GMT
 Call-ID: 6c3fcf80-ccf145e4-17-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Preferred-Identity: <sip:1001@10.89.78.205>
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK986ec5fed6
 From: <sip:2002@10.89.78.195>;tag=3283~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316695
 To: <sip:1001@10.89.78.205>;tag=94-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309475
 Date: Mon, 01 Nov 2010 22:57:40 GMT
 Call-ID: 6c3fcf80-ccf145e4-17-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Preferred-Identity: <sip:1001@10.89.78.205>
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 18416 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 aptime:20

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```

a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[5] ACK sip:1001@10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK995f0a20bc
From: <sip:2002@10.89.78.195>;tag=3283~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316695
To: <sip:1001@10.89.78.205>;tag=94~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309475
Date: Mon, 01 Nov 2010 22:57:40 GMT
Call-ID: 6c3fcf80-ccf145e4-17-c34e590a@10.89.78.195
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 28456 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7087cdd38
From: <sip:1001@10.89.78.205>;tag=94~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309475
To: <sip:2002@10.89.78.195>;tag=3283~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316695
Date: Mon, 01 Nov 2010 22:57:46 GMT
Call-ID: 6c3fcf80-ccf145e4-17-c34e590a@10.89.78.195
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 101 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[7] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7087cdd38
From: <sip:1001@10.89.78.205>;tag=94~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309475
To: <sip:2002@10.89.78.195>;tag=3283~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316695
Date: Mon, 01 Nov 2010 22:57:56 GMT
Call-ID: 6c3fcf80-ccf145e4-17-c34e590a@10.89.78.195
CSeq: 101 BYE
Content-Length: 0

CISCO CONFIDENTIAL**19.10 Mid-Call UPDATE for Display identity change using Asserted-Identity.**

Title: Mid-Call UPDATE for Display identity change using Asserted-Identity.

Description:

Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v] & Privacy=Default
sending UPDATE for mid call Display Name/Number update.

The following call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2. The call is Transferred to another endpoint registered to Unified CM1,
which results in sending of UPDATE from Unified CM1 to Unified CM2.

The Unified CM1 sends an initial INVITE over the SIP Trunk and later sending UPDATE.

The INVITE request carries an identity in Asserted-Identity header. There is "no" Privacy header sent
as Display name & Number are not restricted.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1003, IP = 10.13.5.216 Model = SCCP

Phone = C, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [] Asserted-Identity [v], SIP Privacy= Default, Asserted-Type=Default

Scenario:

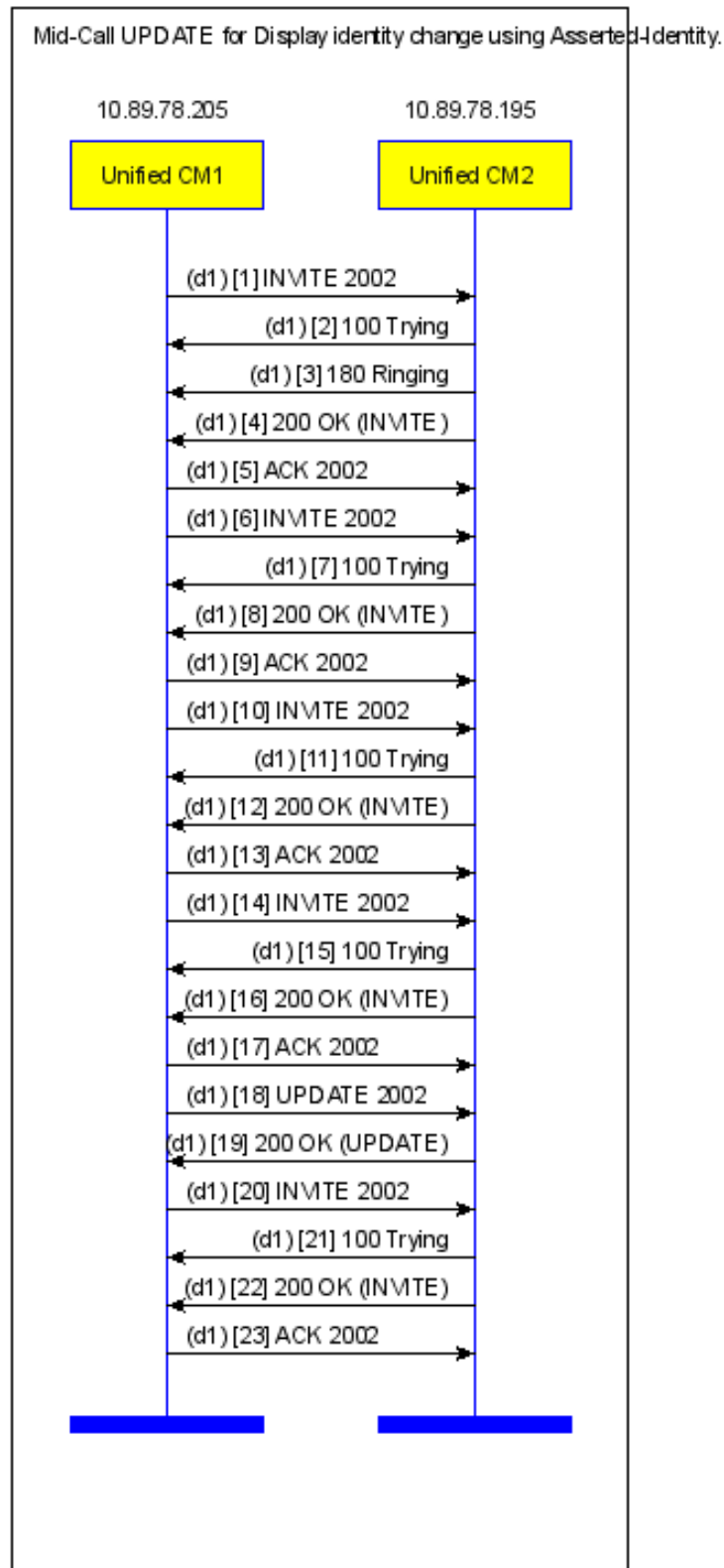
Phone A DN 1003 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone A Transfers call to C DN 1001 and an UPDATE is sent from Unified CM1 to Unified CM2, with

P-Asserted-Identity having identity of Phone = C.

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End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7d5dfb0f52
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 23:07:32 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3441153920-0000065536-0000000049-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7d5dfb0f52
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 23:07:32 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7d5dfb0f52
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:32 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7d5dfb0f52
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:32 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 21698 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000

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```

a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7e783fa37
From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
Date: Mon, 01 Nov 2010 23:07:32 GMT
Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.216
t=0 0
m=audio 27280 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[6] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7f2437eaef
From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
Date: Mon, 01 Nov 2010 23:07:41 GMT
Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1003@10.89.78.205>
Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 219

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 27280 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[7] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7f2437eaef
From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
Date: Mon, 01 Nov 2010 23:07:41 GMT
Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
CSeq: 102 INVITE
Allow-Events: presence, kpml
Content-Length: 0

```

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[8] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK7f2437eaef
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:41 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 21698 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[9] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8058d8d9f6
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:41 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[10] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK816be123ca
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:41 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[11] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK816be123ca
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:41 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[12] SIP/2.0 200 OK**

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK816be123ca
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:41 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 22398 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK822115aa57
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:41 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 103 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK831433873f
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:46 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>

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Content-Type: application/sdp
Content-Length: 184

```
v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 100 Trying

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK831433873f
From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
Date: Mon, 01 Nov 2010 23:07:46 GMT
Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK831433873f
From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
Date: Mon, 01 Nov 2010 23:07:46 GMT
Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 167
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 22398 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK84446533f3
From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
Date: Mon, 01 Nov 2010 23:07:46 GMT
Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 104 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] UPDATE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK856f489d6f
From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
Date: Mon, 01 Nov 2010 23:07:46 GMT
Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
Supported: timer,resource-priority,replaces
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 105 UPDATE
```


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Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK856f489d6f
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:46 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 105 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK86699a113e
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:46 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 106 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK86699a113e
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:46 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 106 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK86699a113e
 From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483
 To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699
 Date: Mon, 01 Nov 2010 23:07:46 GMT
 Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205
 CSeq: 106 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219

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```

t=0 0
m=audio 22920 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[diagram] Call-ID: **[prev]**[next]

[23] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK874505d1cd

From: <sip:1003@10.89.78.205>;tag=98~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309483

To: <sip:2002@10.89.78.195>;tag=3292~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316699

Date: Mon, 01 Nov 2010 23:07:46 GMT

Call-ID: cd1bd780-ccf14834-36-cd4e590a@10.89.78.205

Max-Forwards: 70

CSeq: 106 ACK

Allow-Events: presence, kpml

Content-Type: application/sdp

Content-Length: 211

v=0

o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205

s=SIP Call

c=IN IP4 10.13.5.217

t=0 0

m=audio 29274 RTP/AVP 9 101

a=rtpmap:9 G722/8000

a=ptime:20

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

CISCO CONFIDENTIAL**19.11 Mid-Call UPDATE for Display identity change with P-Preferred-Identity**

Title: Mid-Call UPDATE for Display identity change with P-Preferred-Identity

Description:

Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v] & SIP Privacy=Default

Asserted-Type=PPI, sending UPDATE for mid call Display Name/Number update.

The following call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2. The call is Transferred to another endpoint registered to Unified CM1,
which results in sending of UPDATE from Unified CM1 to Unified CM2.

The Unified CM1 sends an UPDATE message with P-Preferred-Identity.

There is "no" Privacy header sent as Display name & Number are not restricted.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1003, IP = 10.13.5.216, Model = SCCP

Phone = C, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [] Asserted-Identity [v], SIP Privacy= Default, Asserted-Type=PPI

Scenario:

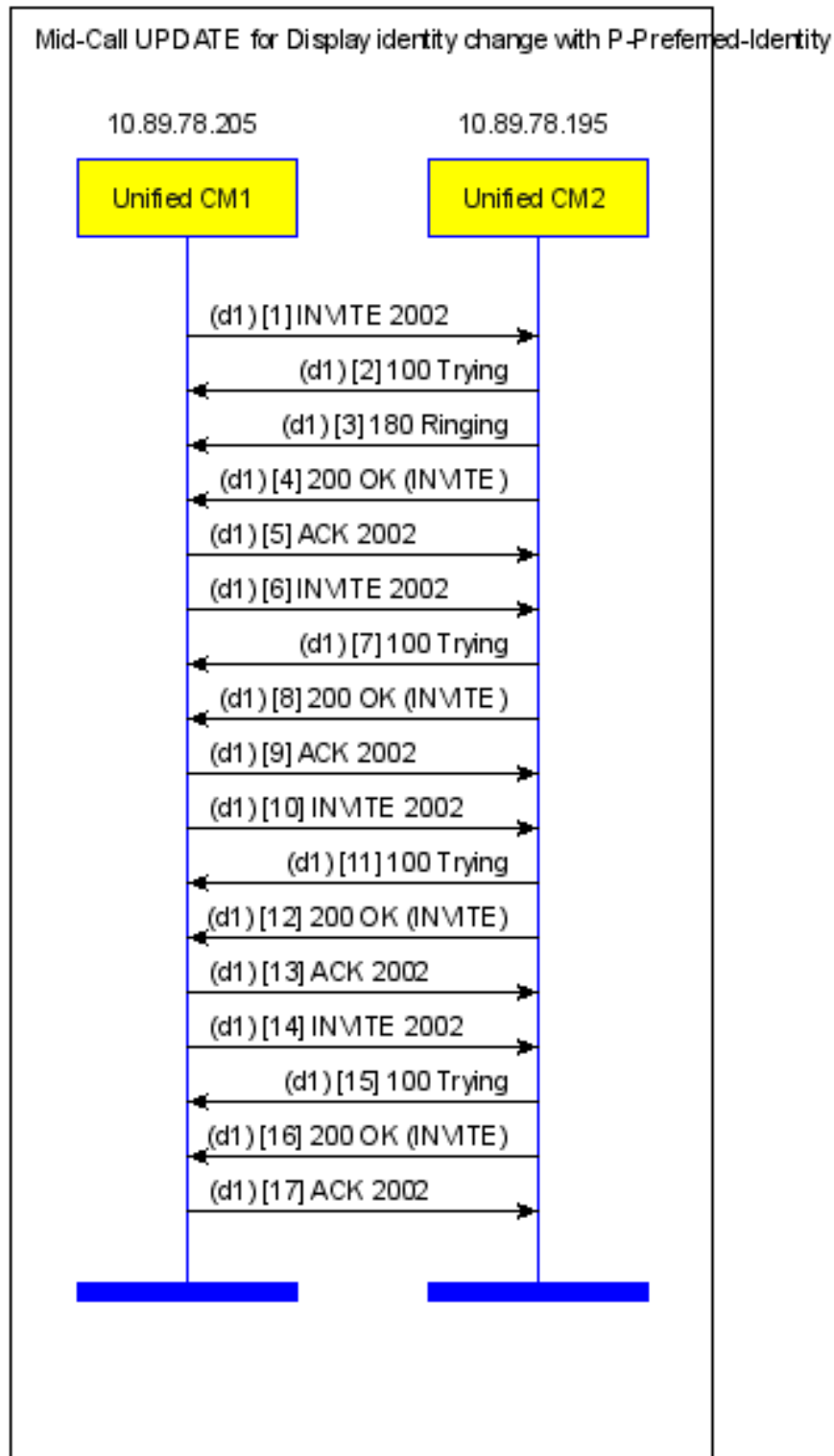
Phone A DN 1003 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone A Transfers call to C DN 1001 and an UPDATE is sent from Unified CM1 to Unified CM2, with

P-Preferred-Identity having identity of Phone = C.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK886e9da216
 From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 23:15:35 GMT
 Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3976186624-00000065536-0000000050-3444463882
 Session-Expires: 1800
 P-Preferred-Identity: <sip:1003@10.89.78.205>
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK886e9da216
 From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
 To: <sip:2002@10.89.78.195>
 Date: Mon, 01 Nov 2010 23:15:35 GMT
 Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK886e9da216
 From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
 To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
 Date: Mon, 01 Nov 2010 23:15:35 GMT
 Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK886e9da216
 From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
 To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
 Date: Mon, 01 Nov 2010 23:15:35 GMT
 Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 20810 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000

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```

a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK897721408e
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:35 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.216
t=0 0
m=audio 26398 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[6] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8a46b36caa
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:41 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Preferred-Identity: <sip:1003@10.89.78.205>
Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 219

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 26398 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[7] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8a46b36caa
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:41 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
CSeq: 102 INVITE
Allow-Events: presence, kpml
Content-Length: 0

```

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8a46b36caa
 From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
 To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
 Date: Mon, 01 Nov 2010 23:15:41 GMT
 Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 20810 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[9] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8b1a9c6b5a
 From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
 To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
 Date: Mon, 01 Nov 2010 23:15:41 GMT
 Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[10] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8c475d3b15
 From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
 To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
 Date: Mon, 01 Nov 2010 23:15:41 GMT
 Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Preferred-Identity: <sip:1003@10.89.78.205>
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[11] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8c475d3b15
 From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
 To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
 Date: Mon, 01 Nov 2010 23:15:41 GMT
 Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[12] SIP/2.0 200 OK**

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```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8c475d3b15
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:41 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Session-Expires: 1800;refresher=uas
Require: timer
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 321
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 21294 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8d59c56f10
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:41 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 189
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.78.205
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=sendonly
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] INVITE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8e69628f50
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:46 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 104 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Preferred-Identity: <sip:1003@10.89.78.205>
Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
```

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Content-Type: application/sdp
Content-Length: 184

```
v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 100 Trying

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8e69628f50
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:46 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8e69628f50
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:46 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 167
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.219
t=0 0
m=audio 21294 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8f46664897
From: <sip:1003@10.89.78.205>;tag=100~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309488
To: <sip:2002@10.89.78.195>;tag=3298~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316701
Date: Mon, 01 Nov 2010 23:15:46 GMT
Call-ID: ecffcb00-ccf14a17-37-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 104 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

CISCO CONFIDENTIAL**19.12 Incoming OOB REFER request for performing a click to call scenario.**

Title: Incoming OOB REFER request for performing a click to call scenario.

Description:

Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v] , SIP Privacy=Default, Asserted-Type=Default, processing incoming OOB REFER for click to call scenario.

The following call flow illustrates the SIP messaging for an incoming REFER message to Unified CM1.

The Unified CM1 uses REFER and places a call between the party addressed in Request URI and the party in Refer-To header, which is a device registered on Unified CM1

The REFER request carries an identity in P-Asserted-Identity header. The Unified CM1 uses an identity in the P-Asserted-Identity of REFER for sending an identity in Remote-Party-Id header of an INVITE sent to the party in Request-URI. Once half call is established with party in Request-URI, it is redirected to party in Refer-To.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Remote Phone, IP = 10.89.77.5.

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 1003, IP = 10.13.5.216, Model = SCCP

Remote, Line = 9193929980, Display Name = "REFERPAI" IP = 10.10.200.101, Model = SIP

SIP Trunk from Unified CM1 to remote has

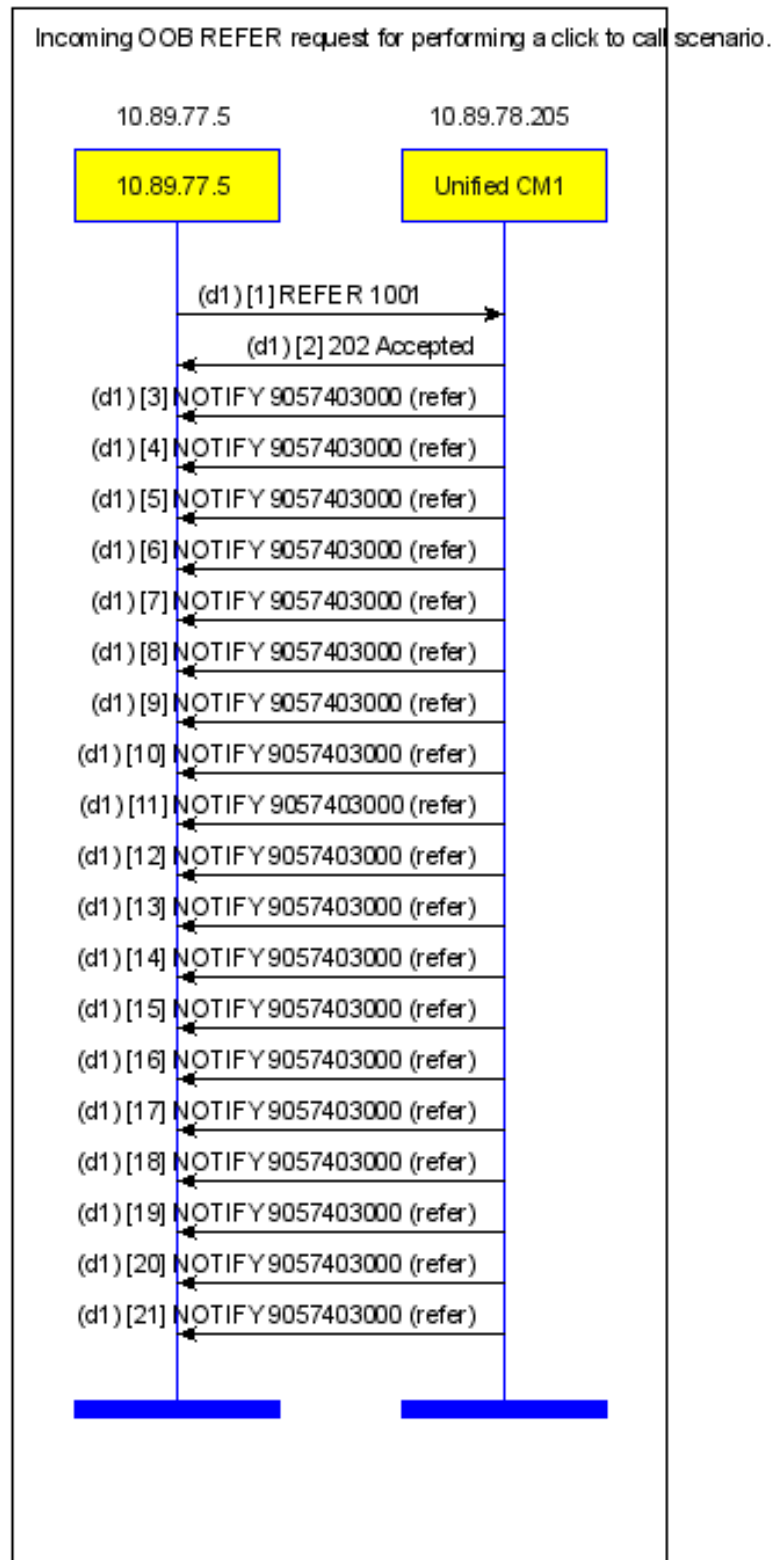
a) Remote-Party-Id [] Asserted-Identity [v], SIP Privacy= Default, Asserted-Type=Default

Scenario:

Remote sends OOB REFER over the SIP Trunk requesting a call from Phone A DN 1003 to Phone B DN 1001

The Unified CM1 sends an INVITE to Phone A DN 1003 and uses identity in Remote-Party-Id as taken from REFER message's P-Asserted-Identity header.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] REFER sip:1001@10.89.78.205 SIP/2.0**

Call-ID: 1-16137@10.89.77.5

Contact: <sip:9057403000@10.89.77.5>

CSeq: 1 REFER

From: sipp <sip:9193929980@10.89.77.5:5060>;tag=1

To: <sip:1001@10.89.78.205>

Via: SIP/2.0/TCP 10.89.77.5:5060

P-Asserted-Identity: "REFERPAI" <sip:3929980@10.89.77.5>

Privacy: id

Max-Forwards: 70

Refer-To: sip:1003@10.89.78.205

Referred-By:<sip:10.89.77.5>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 202 Accepted**

Via: SIP/2.0/TCP 10.89.77.5:5060

From: sipp <sip:9193929980@10.89.77.5:5060>;tag=1

To: <sip:1001@10.89.78.205>;tag=10430077

Date: Tue, 02 Nov 2010 17:06:31 GMT

Call-ID: 1-16137@10.89.77.5

CSeq: 1 REFER

Contact: <sip:1001@10.89.78.205:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa57e83eb01

From: <sip:1001@10.89.78.205>;tag=10430077

To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1

Call-ID: 1-16137@10.89.77.5

CSeq: 101 NOTIFY

Max-Forwards: 70

Date: Tue, 02 Nov 2010 17:06:31 GMT

User-Agent: Cisco-CUCM8.5

Event: refer

Subscription-State: active;expires=60

Contact: <sip:1001@10.89.78.205:5060>

Content-Type: message/sipfrag;version=2.0

Content-Length: 20

SIP/2.0 100 Trying

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa57e83eb01

From: <sip:1001@10.89.78.205>;tag=10430077

To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1

Call-ID: 1-16137@10.89.77.5

CSeq: 101 NOTIFY

Max-Forwards: 70

Date: Tue, 02 Nov 2010 17:06:31 GMT

User-Agent: Cisco-CUCM8.5

Event: refer

Subscription-State: active;expires=60

Contact: <sip:1001@10.89.78.205:5060>

Content-Type: message/sipfrag;version=2.0

Content-Length: 20

SIP/2.0 100 Trying

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa57e83eb01

From: <sip:1001@10.89.78.205>;tag=10430077

To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1

Call-ID: 1-16137@10.89.77.5

CSeq: 101 NOTIFY

Max-Forwards: 70

Date: Tue, 02 Nov 2010 17:06:31 GMT

User-Agent: Cisco-CUCM8.5

Event: refer

Subscription-State: active;expires=60

Contact: <sip:1001@10.89.78.205:5060>

Content-Type: message/sipfrag;version=2.0

Content-Length: 20

SIP/2.0 100 Trying

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa57e83eb01
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:31 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=60
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 20

SIP/2.0 100 Trying

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa57e83eb01
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:31 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=60
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 20

SIP/2.0 100 Trying

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa67544d767
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=52
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 21

SIP/2.0 180 Ringing

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa67544d767
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=52
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 21

SIP/2.0 180 Ringing

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa67544d767
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 102 NOTIFY
 Max-Forwards: 70

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Date: Tue, 02 Nov 2010 17:06:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=52
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 21

SIP/2.0 180 Ringing

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[11] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa67544d767
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=52
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 21

SIP/2.0 180 Ringing

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[12] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa57e83eb01
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:31 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=60
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 20

SIP/2.0 100 Trying

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[13] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa75225e8aa
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:43 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: terminated
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 16

SIP/2.0 200 OK

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[14] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa75225e8aa
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:43 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: terminated
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 16

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SIP/2.0 200 OK

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[15] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa75225e8aa
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:43 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: terminated
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 16

SIP/2.0 200 OK

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[16] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa67544d767
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=52
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 21

SIP/2.0 180 Ringing

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[17] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa75225e8aa
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:43 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: terminated
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 16

SIP/2.0 200 OK

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[18] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa57e83eb01
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:31 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=60
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 20

SIP/2.0 100 Trying

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[19] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa67544d767
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5

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CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=52
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 21

SIP/2.0 180 Ringing

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[20] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa75225e8aa
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:43 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: terminated
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 16

SIP/2.0 200 OK

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[21] NOTIFY sip:9057403000@10.89.77.5:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.89.78.205:5060;branch=z9hG4bKa57e83eb01
 From: <sip:1001@10.89.78.205>;tag=10430077
 To: sipp <sip:9193929980@10.89.77.5:5060>;tag=1
 Call-ID: 1-16137@10.89.77.5
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Tue, 02 Nov 2010 17:06:31 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=60
 Contact: <sip:1001@10.89.78.205:5060>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 20

SIP/2.0 100 Trying

CISCO CONFIDENTIAL**19.13 Basic Outgoing Call with Asserted-Identity & Privacy:id headers.**

Title: Basic Outgoing Call with Asserted-Identity & Privacy:id headers.

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v] and SIP Privacy=ID configuration.

The following basic call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2.

The Unified CM1 sends an INVITE over the SIP Trunk for inviting Unified CM2 to the call.

The INVITE request carries an identity in Asserted-Identity header.

Based on SIP Privacy=ID configuration, there is a Privacy:id header sent resulting in restriction of both Display name & Number.

The From header in outgoing INVITE is accordingly changed to From: "Anonymous"
<sip:anonymous@anonymous.invalid

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

a) route pattern 2.XXXX

b) Has destination port configured to be 5060

c) Remote-Party-Id [] Asserted-Identity [v], Asserted-Type=Default, SIP Privacy=ID

Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

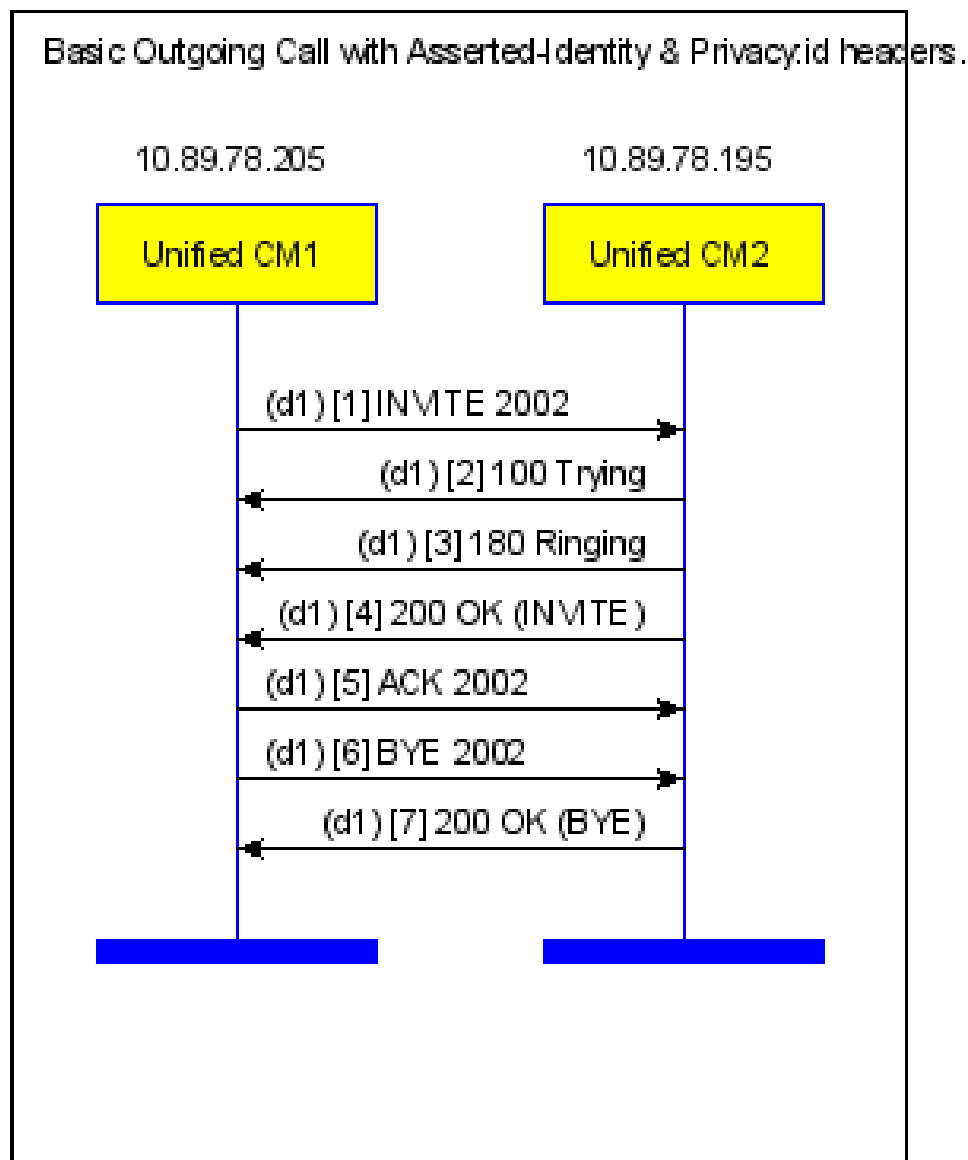
Phone B DN 2002 Alerts

Phone B answers the call

Phone A goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK94668b4ae5
 From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=102-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309493
 To: <sip:2002@10.89.78.195>
 Date: Tue, 02 Nov 2010 15:49:31 GMT
 Call-ID: c6d33d00-cd01330b-38-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3335732480-0000065536-0000000051-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: id
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK94668b4ae5
 From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=102-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309493
 To: <sip:2002@10.89.78.195>
 Date: Tue, 02 Nov 2010 15:49:31 GMT
 Call-ID: c6d33d00-cd01330b-38-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK94668b4ae5
 From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=102-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309493
 To: <sip:2002@10.89.78.195>;tag=3818-f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316703
 Date: Tue, 02 Nov 2010 15:49:31 GMT
 Call-ID: c6d33d00-cd01330b-38-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK94668b4ae5
 From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=102-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309493
 To: <sip:2002@10.89.78.195>;tag=3818-f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316703
 Date: Tue, 02 Nov 2010 15:49:31 GMT
 Call-ID: c6d33d00-cd01330b-38-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 20698 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9569467f13
From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=102~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309493
To: <sip:2002@10.89.78.195>;tag=3818~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316703
Date: Tue, 02 Nov 2010 15:49:31 GMT
Call-ID: c6d33d00-cd01330b-38-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Privacy: id
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 27096 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9622c707d5
From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=102~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309493
To: <sip:2002@10.89.78.195>;tag=3818~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316703
Date: Tue, 02 Nov 2010 15:49:31 GMT
Call-ID: c6d33d00-cd01330b-38-cd4e590a@10.89.78.205
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
Privacy: id
P-Asserted-Identity: <sip:1001@10.89.78.205>
CSeq: 102 BYE
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9622c707d5
From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=102~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309493
To: <sip:2002@10.89.78.195>;tag=3818~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316703
Date: Tue, 02 Nov 2010 15:49:42 GMT
Call-ID: c6d33d00-cd01330b-38-cd4e590a@10.89.78.205
CSeq: 102 BYE
Content-Length: 0

```

CISCO CONFIDENTIAL**19.14 Basic Outgoing Call with an identity in Asserted-Identity header & Privacy: id;critical**

Title: Basic Outgoing Call with an identity in Asserted-Identity header & Privacy: id;critical

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v] and SIP Privacy=ID Critical configuration

The following basic call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2.

The Unified CM1 sends an INVITE over the SIP Trunk for inviting Unified CM2 to the call.

The INVITE request carries an identity in Asserted-Identity header.

Based on SIP Privacy=ID Critical configuration, there is a Privacy: id;critical header sent resulting in restriction of both Display name & Number.

The From header in outgoing INVITE is accordingly changed to From: "Anonymous"

<sip:anonymous@anonymous.invalid

Also a Proxy-Require: privacy header is added.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 to Unified CM2 has

- a) route pattern 2.XXXX
- b) Has destination port configured to be 5060
- c) Remote-Party-Id [] Asserted-Identity [v], Asserted-Type=Default, SIP Privacy=ID Critical

Scenario:

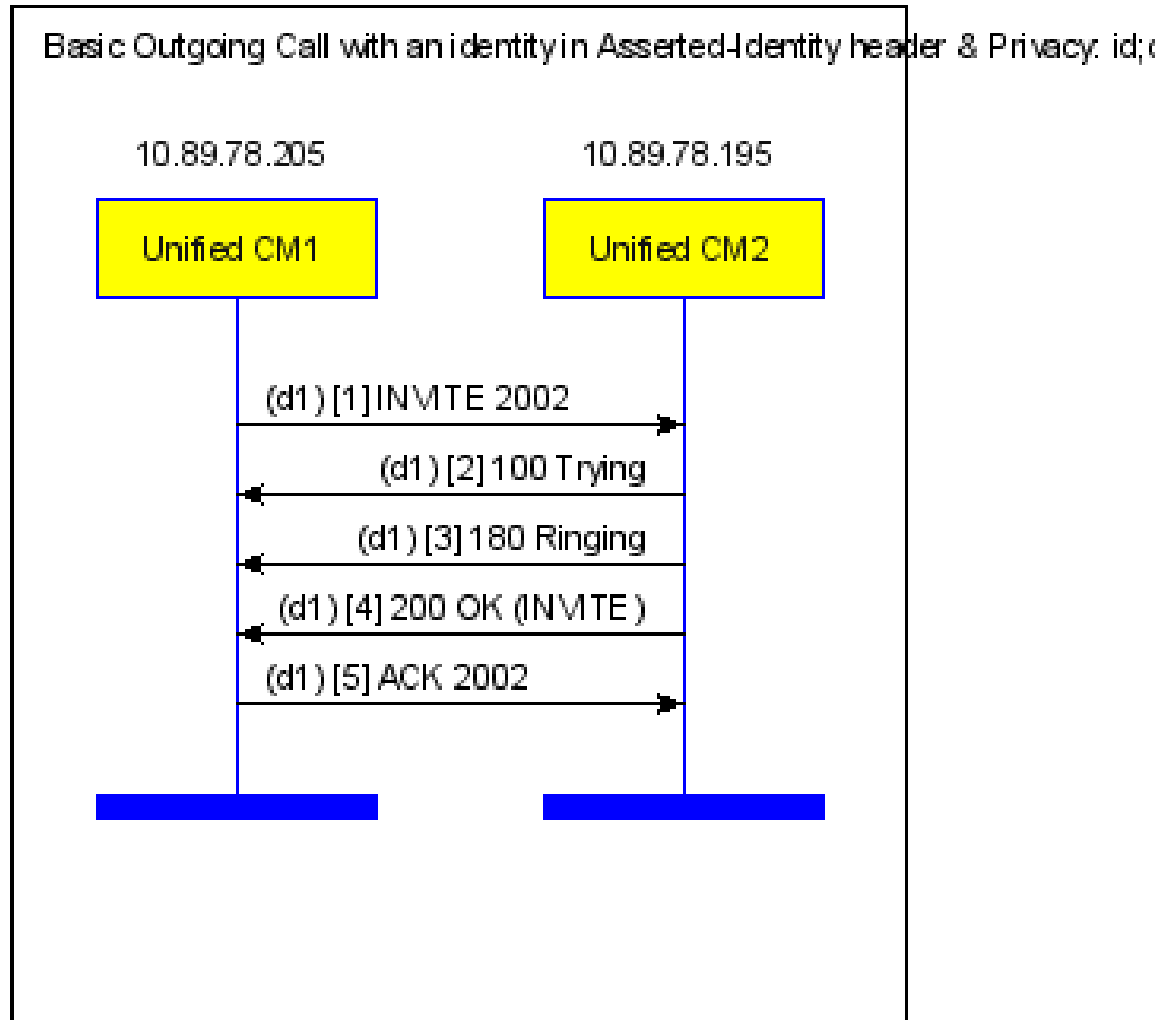
Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B answers the call

Phone A goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK974840f8b1
 From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=104-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309495
 To: <sip:2002@10.89.78.195>
 Date: Tue, 02 Nov 2010 15:55:33 GMT
 Call-ID: 9e980e00-cd013475-39-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2660765184-0000065536-0000000052-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: id;critical
 Proxy-Require: privacy
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK974840f8b1
 From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=104-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309495
 To: <sip:2002@10.89.78.195>
 Date: Tue, 02 Nov 2010 15:55:33 GMT
 Call-ID: 9e980e00-cd013475-39-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK974840f8b1
 From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=104-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309495
 To: <sip:2002@10.89.78.195>;tag=3824-f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316705
 Date: Tue, 02 Nov 2010 15:55:33 GMT
 Call-ID: 9e980e00-cd013475-39-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK974840f8b1
 From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=104-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309495
 To: <sip:2002@10.89.78.195>;tag=3824-f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316705
 Date: Tue, 02 Nov 2010 15:55:33 GMT
 Call-ID: 9e980e00-cd013475-39-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0

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```

m=audio 23950 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK986bdea492
From: "Anonymous" <sip:anonymous@anonymous.invalid>;tag=104-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309495
To: <sip:2002@10.89.78.195>;tag=3824~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316705
Date: Tue, 02 Nov 2010 15:55:33 GMT
Call-ID: 9e980e00-cd013475-39-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Privacy: id;critical
Proxy-Require: privacy
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 30348 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

CISCO CONFIDENTIAL**19.15 Basic Outgoing Call with identity in Asserted-Identity & Privacy:none**

Title: Basic Outgoing Call with identity in Asserted-Identity & Privacy:none

Description:

Basic Unified CM to Unified CM SIP Trunk Call with Remote-Party-Id [] Asserted-Identity [v] and SIP Privacy=None configuration.

The following basic call flow illustrates the SIP messaging for an outgoing SIP Trunk call from a Unified CM1 to a remote Unified CM2.

The Unified CM1 sends an INVITE over the SIP Trunk for inviting Unified CM2 to the call.

The INVITE request carries an identity in Asserted-Identity header.

Based on SIP Privacy=None configuration, there is a Privacy:none header sent

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP

Phone = B, Line = 2002, IP = 10.13.5.219, Model = SCCP

SIP Trunk from Unified CM1 & Unified CM2 has

a) route pattern 2.XXXX

b) Has destination port configured to be 5060

c) Remote-Party-Id [] Asserted-Identity [v], SIP Privacy= None, Asserted-Type=Default

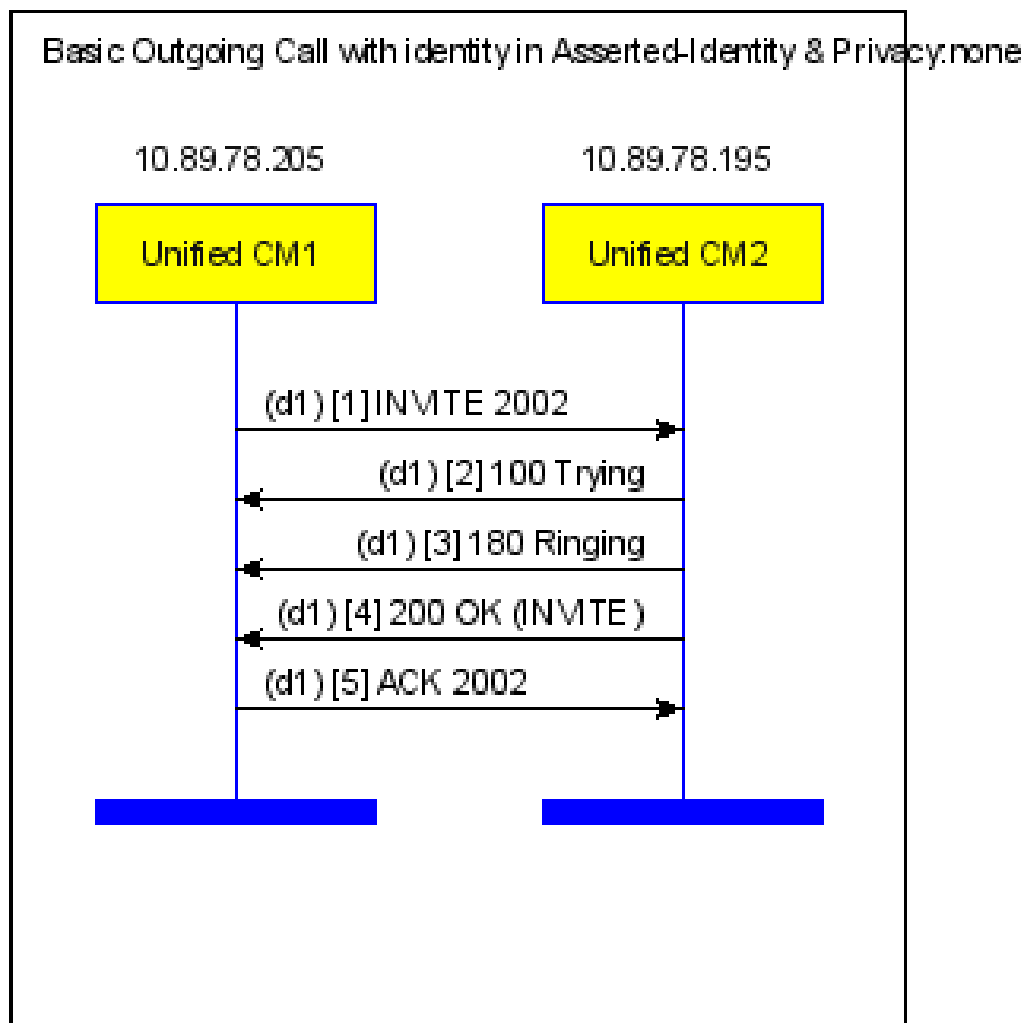
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B answers the call

Phone A goes onHook

End of Scenario

CISCO CONFIDENTIAL

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9d236ef408
 From: <sip:1001@10.89.78.205>;tag=108~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309499
 To: <sip:2002@10.89.78.195>
 Date: Tue, 02 Nov 2010 16:00:08 GMT
 Call-ID: 4281b980-cd013588-3b-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1115797888-0000065536-0000000054-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Privacy: none
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9d236ef408
 From: <sip:1001@10.89.78.205>;tag=108~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309499
 To: <sip:2002@10.89.78.195>
 Date: Tue, 02 Nov 2010 16:00:08 GMT
 Call-ID: 4281b980-cd013588-3b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9d236ef408
 From: <sip:1001@10.89.78.205>;tag=108~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309499
 To: <sip:2002@10.89.78.195>;tag=3830~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316709
 Date: Tue, 02 Nov 2010 16:00:08 GMT
 Call-ID: 4281b980-cd013588-3b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9d236ef408
 From: <sip:1001@10.89.78.205>;tag=108~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309499
 To: <sip:2002@10.89.78.195>;tag=3830~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316709
 Date: Tue, 02 Nov 2010 16:00:08 GMT
 Call-ID: 4281b980-cd013588-3b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219
 t=0 0
 m=audio 19024 RTP/AVP 9 0 8 18 101

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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

```

[diagram] Call-ID: [prev][next]
[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9e47d9939a
From: <sip:1001@10.89.78.205>;tag=108~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309499
To: <sip:2002@10.89.78.195>;tag=3830~f73f0341-b0f0-4bf6-a5e7-2b0a568f134b-19316709
Date: Tue, 02 Nov 2010 16:00:08 GMT
Call-ID: 4281b980-cd013588-3b-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Privacy: none
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 25424 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

CISCO CONFIDENTIAL**20. MLPP****20.1 MLPP Basic Call**

Title: MLPP Basic Call

Description:

The following basic call flow illustrates the SIP messaging when the MLPP feature is enabled on SIP trunk.

Cisco Unified CM1 is configured to have resource priority namespace network domains and resource priority namespace lists with prioritized order for validating inbound SIP trunk messages. SIP Trunk profile is associated with namespace list and namespace network domains are added to any MLPP translations or route patterns, used for outbound SIP trunk calls.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, Model = SCCP on CM1

Phone = B, Line = 2002, Model = SCCP on CM2

Route Pattern 95.XXXX is assigned to the sip trunk registered on CM1

Scenario:

Phone A DN 1001 makes a FlashOverride MLPP call to Phone B DN 2002 over the SIP Trunk by dialing 952002

Phone B DN 2002 rings with Precedence Ringer and shows Precedence level bubbles on CallerID

Phone A DN 1001 gets Precedence Ringback

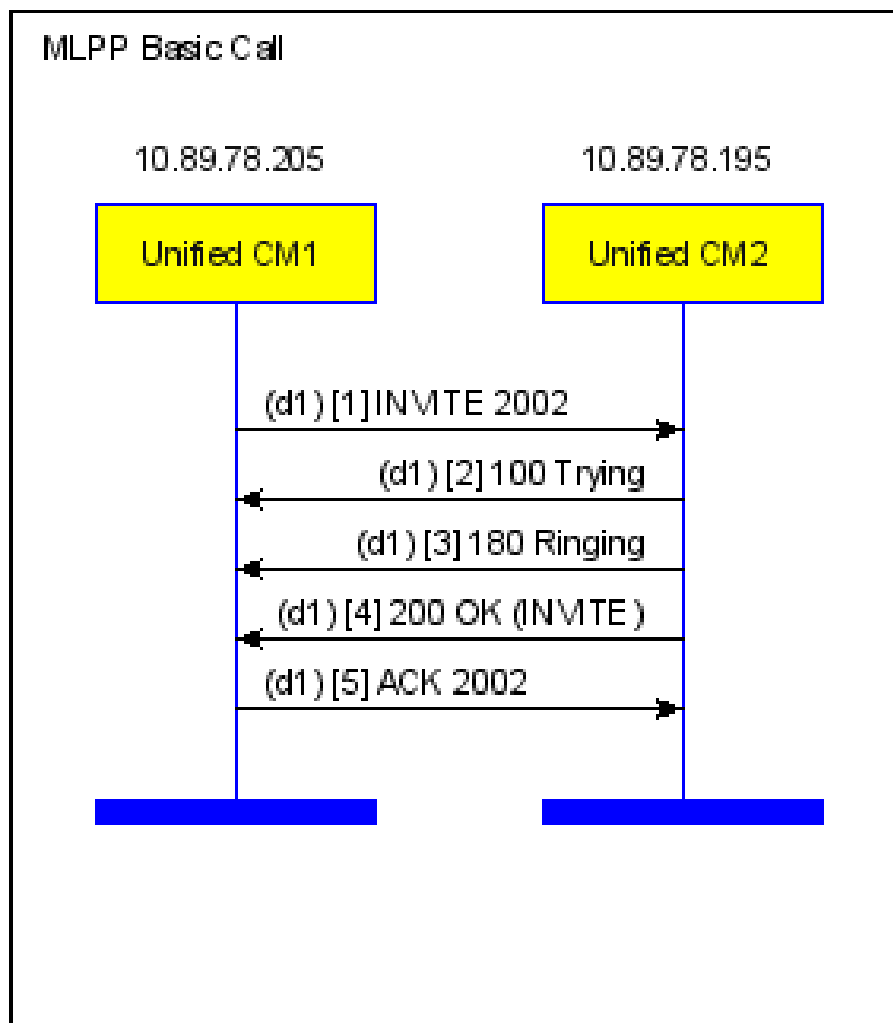
Phone B DN 2002 answers

Both talk for 5 seconds

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK373292294d
 From: <sip:1001@10.89.78.205>;tag=54~1ebcd687-60ae-450a-823c-0469b2740097-23904148
 To: <sip:2002@10.89.78.195>
 Date: Thu, 11 Nov 2010 19:12:32 GMT
 Call-ID: a0fc1580-cdc14020-2c-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Require: resource-priority
 Resource-Priority: sip-rpname.8
 Cisco-Guid: 2700875136-00000065536-0000000044-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK373292294d
 From: <sip:1001@10.89.78.205>;tag=54~1ebcd687-60ae-450a-823c-0469b2740097-23904148
 To: <sip:2002@10.89.78.195>
 Date: Thu, 11 Nov 2010 19:12:32 GMT
 Call-ID: a0fc1580-cdc14020-2c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK373292294d
 From: <sip:1001@10.89.78.205>;tag=54~1ebcd687-60ae-450a-823c-0469b2740097-23904148
 To: <sip:2002@10.89.78.195>;tag=1256~e811c00a-4a66-4296-a800-0718da03b731-23908457
 Date: Thu, 11 Nov 2010 19:12:32 GMT
 Call-ID: a0fc1580-cdc14020-2c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK373292294d
 From: <sip:1001@10.89.78.205>;tag=54~1ebcd687-60ae-450a-823c-0469b2740097-23904148
 To: <sip:2002@10.89.78.195>;tag=1256~e811c00a-4a66-4296-a800-0718da03b731-23908457
 Date: Thu, 11 Nov 2010 19:12:32 GMT
 Call-ID: a0fc1580-cdc14020-2c-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219

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```

t=0 0
m=audio 32724 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3813b278db
From: <sip:1001@10.89.78.205>;tag=54~1ebcd687-60ae-450a-823c-0469b2740097-23904148
To: <sip:2002@10.89.78.195>;tag=1256~e811c00a-4a66-4296-a800-0718da03b731-23908457
Date: Thu, 11 Nov 2010 19:12:32 GMT
Call-ID: a0fc1580-cdc14020-2c-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 29754 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

CISCO CONFIDENTIAL**21. V.150.1****21.1 Basic Call with V.150.1 virtual codec**

Title: Basic Call with V.150.1 virtual codec

Description:

The following basic call flow illustrates the SIP messaging when the virtual codecs are enabled on gateway and how these capabilities are included in SDP.

Cisco Unified CM1 sent out the initial INVITE.

Note: The IP-STE phonetype (SCCP Secure IP Phone) also supports the virtual codecs required for V.150.1.

Configuration:

Node = Unified CM1, IP = 2001:919::5:11:1:1

Node = Unified CM3, IP = 2001:919::5:31:1:1

Phone = A, Line = 1101, IP = 5.100.1.57, Model = SCCP (Analog)

Phone = B, Line = 3101, IP = 5.100.1.53, Model = SCCP (Analog)

Phone A registers on Gateway CM1 to Unified CM1 with certain virtual codecs.

Phone B registers on Gateway CM3 to Unified CM3 with certain virtual codecs.

Scenario:

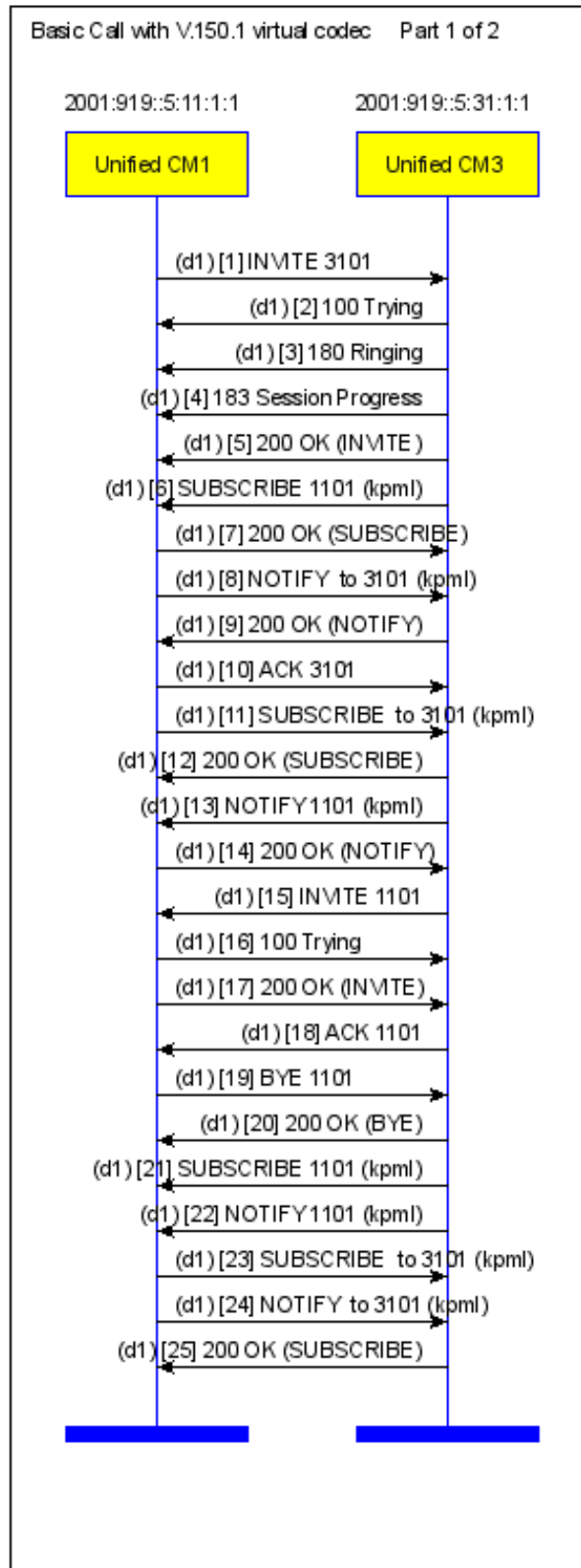
Phone A DN 1101 calls Phone B DN 3101 over the SIP Trunk

Phone B DN 3101 Answers

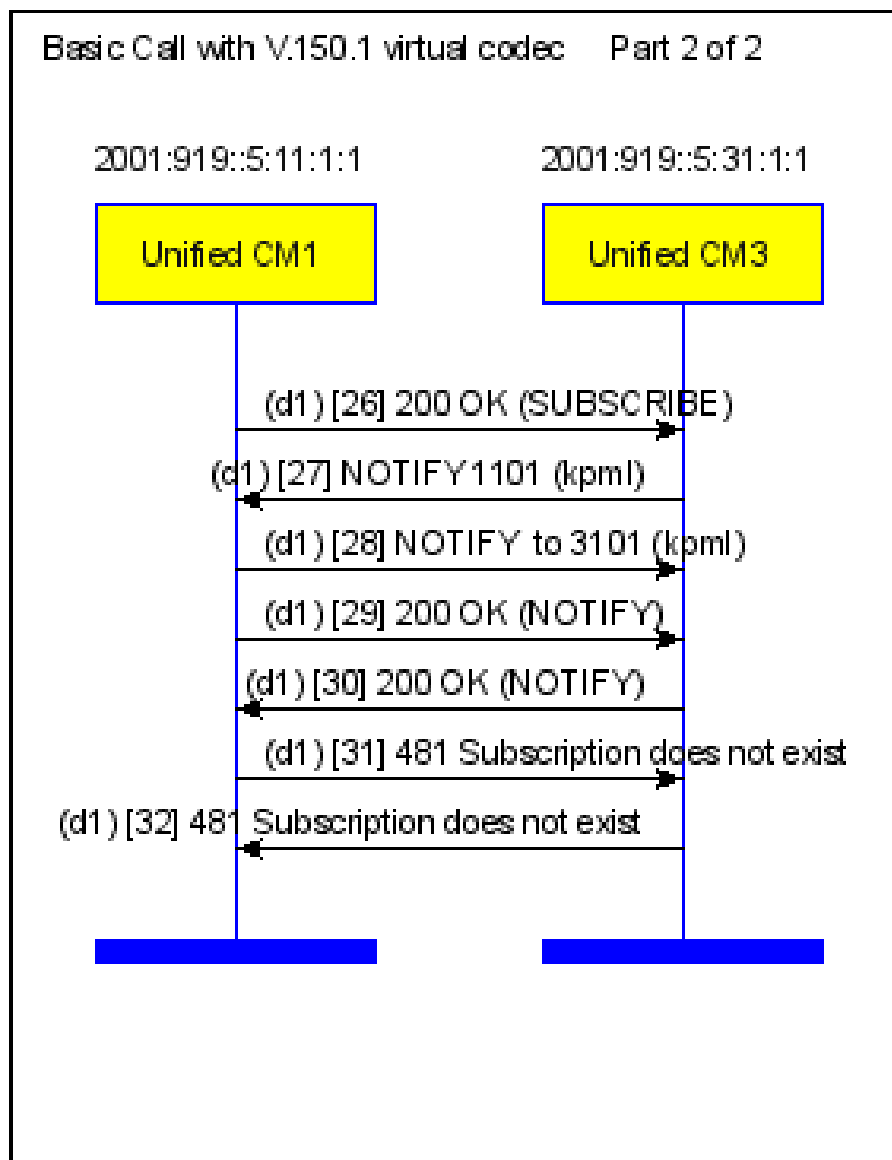
Phone A DN 1101 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:3101@2001:919::5:31:1:1]:5060 SIP/2.0**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1256480967
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>
 Date: Mon, 20 Dec 2010 22:11:51 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 Supported: timer,resource-priority,replaces,sdp-anat
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:[2001:919::5:11:1:1]:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Require: resource-priority
 Resource-Priority: drsn-000001.0
 Cisco-Guid: 0603288320-00000065536-0000000002-0016845573
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1101@[2001:919::5:11:1:1]>
 Remote-Party-ID: <sip:1101@[2001:919::5:11:1:1]>;party=calling;screen=yes;privacy=off
 Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1256480967
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>
 Date: Mon, 20 Dec 2010 22:11:51 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1256480967
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Date: Mon, 20 Dec 2010 22:11:51 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3101@[2001:919::5:31:1:1]>
 Remote-Party-ID: <sip:3101@[2001:919::5:31:1:1]>;party=called;screen=yes;privacy=off
 Contact: <sip:3101@[2001:919::5:31:1:1]:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1256480967
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Date: Mon, 20 Dec 2010 22:11:51 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Require: sdp-anat
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3101@[2001:919::5:31:1:1]>
 Remote-Party-ID: <sip:3101@[2001:919::5:31:1:1]>;party=called;screen=yes;privacy=off
 Contact: <sip:3101@[2001:919::5:31:1:1]:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 870

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:919::5:31:1:1
 s=SIP Call
 t=0 0
 a=group:ANAT 1 2
 m=audio 4000 RTP/AVP 0 8 116 18 118 101

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```

c=IN IP6 2001:919::5:100:1:53
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:116 iLBC/8000
a=ptime:20
a=maxptime:120
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:118 v150fw/8000
a=sn:0
a=csrc: 1 audio udpsrt 120
a=cpar: a=sprtmap:120 v150mr/8000
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=mid:1
m=audio 4000 RTP/AVP 0 8 116 18 118
c=IN IP4 5.100.1.53
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:116 iLBC/8000
a=ptime:20
a=maxptime:120
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:118 v150fw/8000
a=sn:0
a=csrc: 1 audio udpsrt 120
a=cpar: a=sprtmap:120 v150mr/8000
a=sendonly
a=mid:2

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1256480967
From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
Date: Mon, 20 Dec 2010 22:11:51 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Require: sdp-anat
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:3101@[2001:919::5:31:1:1]>
Remote-Party-ID: <sip:3101@[2001:919::5:31:1:1]>;party=called;screen=yes;privacy=off
Contact: <sip:3101@[2001:919::5:31:1:1]:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 870

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:919::5:31:1:1
s=SIP Call
t=0 0
a=group:ANAT 1 2
m=audio 4000 RTP/AVP 0 8 116 18 118 101
c=IN IP6 2001:919::5:100:1:53
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:116 iLBC/8000
a=ptime:20
a=maxptime:120
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:118 v150fw/8000
a=sn:0
a=csrc: 1 audio udpsrt 120

```

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```

a=cpar: a=sprtmmap:120 v150mr/8000
a=sendonly
a=rtmmap:101 telephone-event/8000
a=fmtp:101 0-15
a=mid:1
m=audio 4000 RTP/AVP 0 8 116 18 118
c=IN IP4 5.100.1.53
a=rtmmap:0 PCMU/8000
a=ptime:20
a=rtmmap:8 PCMA/8000
a=ptime:20
a=rtmmap:116 iLBC/8000
a=ptime:20
a=maxptime:120
a=fmtp:116 mode=20
a=rtmmap:18 G729/8000
a=ptime:20
a=rtmmap:118 v150fw/8000
a=sn:0
a=cdsc: 1 audio udpsprt 120
a=cpar: a=sprtmmap:120 v150mr/8000
a=sendonly
a=mid:2

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SUBSCRIBE sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bK77c53650f
From: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
To: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 101 SUBSCRIBE
Date: Mon, 20 Dec 2010 22:12:12 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:[2001:919::5:31:1:1]:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

```

```

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

```

```

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>

```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bK77c53650f
From: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
To: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
Date: Mon, 20 Dec 2010 22:12:12 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 101 SUBSCRIBE
Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
Expires: 7200
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] NOTIFY sip:[2001:919::5:31:1:1]:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK135198db80
From: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
To: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Mon, 20 Dec 2010 22:12:12 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
P-Asserted-Identity: <sip:1101@[2001:919::5:11:1:1]>
Content-Length: 0

```

CISCO CONFIDENTIAL**[diagram]** Call-ID: **[prev][next]****[9] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK135198db80
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Date: Mon, 20 Dec 2010 22:12:12 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 102 NOTIFY
 Content-Length: 0

[diagram] Call-ID: **[prev][next]****[10] ACK sip:3101@[2001:919::5:31:1:1]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1451e06252
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Date: Mon, 20 Dec 2010 22:11:51 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 716

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:919::5:11:1:1
 s=SIP Call
 t=0 0
 a=group:ANAT 1
 m=audio 19528 RTP/AVP 0 118 101
 c=IN IP6 2001:919::5:100:1:57
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:118 v150fw/8000
 a=sqn:0
 a=cdsc: 1 audio udpsprt 120
 a=cpar: a=sprtmmap:120 v150mr/8000
 a=recvonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=mid:1
 m=audio 0 RTP/AVP 0 8 116 18 118
 c=IN IP4 5.100.1.53
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:116 iLBC/8000
 a=ptime:20
 a=maxptime:120
 a=fmtp:116 mode=20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:118 v150fw/8000
 a=sqn:0
 a=cdsc: 1 audio udpsprt 120
 a=cpar: a=sprtmmap:120 v150mr/8000
 a=sendonly
 a=mid:2

[diagram] Call-ID: **[prev][next]****[11] SUBSCRIBE sip:[2001:919::5:31:1:1]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1545645d37
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 103 SUBSCRIBE
 Date: Mon, 20 Dec 2010 22:12:12 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
 P-Asserted-Identity: <sip:1101@[2001:919::5:11:1:1]>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

<?xml version="1.0" encoding="UTF-8" ?>
 <kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

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```
<pattern interdigittimer="7260000" persist="persist">
  <regex tag="dtmf">[x*#ABCD]</regex>
</pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1545645d37
From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
Date: Mon, 20 Dec 2010 22:12:12 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 103 SUBSCRIBE
Contact: <sip:[2001:919::5:31:1:1]:5060;transport=tcp>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] NOTIFY sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bK824fcd7d5
From: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
To: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Mon, 20 Dec 2010 22:12:12 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:[2001:919::5:31:1:1]:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bK824fcd7d5
From: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
To: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
Date: Mon, 20 Dec 2010 22:12:12 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 102 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] INVITE sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bK91dbe6239
From: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
To: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
Date: Mon, 20 Dec 2010 22:12:12 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
Supported: timer,resource-priority,replaces,sdp-anat
Min-SE: 1800
Cisco-Guid: 0603288320-0000065536-0000000002-0016845573
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: resource-priority
Resource-Priority: drsn-000001.0
P-Asserted-Identity: <sip:3101@[2001:919::5:31:1:1]>
Remote-Party-ID: <sip:3101@[2001:919::5:31:1:1]>;party=calling;screen=yes;privacy=off
Contact: <sip:1101@[2001:919::5:31:1:1]:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 350
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP6 2001:919::5:31:1:1
s=SIP Call
c=IN IP6 2001:919::5:100:1:53
t=0 0
m=audio 18834 RTP/AVP 0 118 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:118 v150fw/8000
```

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```
a=sqn:0
a=cdsc: 1 audio udpsprt 120
a=cpar: a=sprtmap:120 v150mr/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=audio 0 RTP/AVP 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 100 Trying

```
Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bK91dbe6239
From: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
To: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
Date: Mon, 20 Dec 2010 22:12:12 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 103 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bK91dbe6239
From: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
To: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
Date: Mon, 20 Dec 2010 22:12:12 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: sdp-anat
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: timer
P-Asserted-Identity: <sip:1101@[2001:919::5:11:1:1]>
Remote-Party-ID: <sip:1101@[2001:919::5:11:1:1]>;party=called;screen=yes;privacy=off
Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 366
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP6 2001:919::5:11:1:1
s=SIP Call
c=IN IP6 2001:919::5:100:1:57
t=0 0
a=group:ANAT 1
m=audio 19528 RTP/AVP 0 118 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:118 v150fw/8000
a=sqn:0
a=cdsc: 1 audio udpsprt 120
a=cpar: a=sprtmap:120 v150mr/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=audio 0 RTP/AVP 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] ACK sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bK9aa9aa708
From: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
To: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
Date: Mon, 20 Dec 2010 22:12:12 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] BYE sip:1101@[2001:919::5:31:1:1]:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK16556f229e
From: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
To: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
Date: Mon, 20 Dec 2010 22:12:12 GMT
Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1101@[2001:919::5:11:1:1]>
CSeq: 104 BYE
```

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[20] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK16556f229e
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[21] SUBSCRIBE sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bKb3000ce2d
 From: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 To: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 104 SUBSCRIBE
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:[2001:919::5:31:1:1]:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[22] NOTIFY sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bKc32a93cdc
 From: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 To: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 105 NOTIFY
 Max-Forwards: 70
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:[2001:919::5:31:1:1]:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[23] SUBSCRIBE sip:[2001:919::5:31:1:1]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK171be268d9
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 105 SUBSCRIBE
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
 P-Asserted-Identity: <sip:1101@[2001:919::5:11:1:1]>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[24] NOTIFY sip:[2001:919::5:31:1:1]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1810f69b82
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
 P-Asserted-Identity: <sip:1101@[2001:919::5:11:1:1]>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[25] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK171be268d9
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Date: Mon, 20 Dec 2010 22:13:08 GMT

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Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 105 SUBSCRIBE
 Contact: <sip:[2001:919::5:31:1:1]:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bKb3000ce2d
 From: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 To: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 104 SUBSCRIBE
 Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] NOTIFY sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bKd74362454
 From: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 To: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:[2001:919::5:31:1:1]:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] NOTIFY sip:[2001:919::5:31:1:1]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK193b1e1d77
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 107 NOTIFY
 Max-Forwards: 70
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:1101@[2001:919::5:11:1:1]:5060;transport=tcp>
 P-Asserted-Identity: <sip:1101@[2001:919::5:11:1:1]>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bKc32a93cdc
 From: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 To: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 105 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK1810f69b82
 From: <sip:1101@[2001:919::5:11:1:1]>;tag=104-e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780
 To: <sip:3101@[2001:919::5:31:1:1]>;tag=4-800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357
 Date: Mon, 20 Dec 2010 22:13:08 GMT
 Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1
 CSeq: 106 NOTIFY
 Content-Length: 0

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[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP [2001:919::5:31:1:1]:5060;branch=z9hG4bKd74362454

From: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357

To: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780

Date: Mon, 20 Dec 2010 22:13:08 GMT

Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1

CSeq: 106 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP [2001:919::5:11:1:1]:5060;branch=z9hG4bK193b1e1d77

From: <sip:1101@[2001:919::5:11:1:1]>;tag=104~e4e00c5e-f018-4bc7-b6bf-7e7e813ae42b-20923780

To: <sip:3101@[2001:919::5:31:1:1]>;tag=4~800c5fd5-41b5-4791-9bd9-eb45d1289b5c-20925357

Date: Mon, 20 Dec 2010 22:13:08 GMT

Call-ID: 23f57300-d0f1d4a7-c-1010b05@2001:919::5:11:1:1

CSeq: 107 NOTIFY

Content-Length: 0

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Title: T38 Interop with MS Exchange

Description:

The following basic callflow illustrates the SIP messaging over a SIP Trunk when a fax call is initiated.

Fax Machine A first tries to setup a audio call with Fax Machine B which is connected to a Microsoft Exchange Server and then call is switched to T.38 facsimile while faxing the data over.

Note: After switching to T.38 facsimile call, Cisco Call Manager does not allow the call to get downgraded to audio only call.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = RemoteUA1, IP = 10.89.77.5

Node = RemoteUA2, IP = 10.89.77.6

Fax = A, DN = 2020

Fax = B, DN = 9999

SIP Trunk between RemoteUA1 & Unified CM1 has route pattern 6.XXXX

SIP Trunk between Unified CM2 & RemoteUA2 has

a) route pattern 7.XXXX

b) SIP Profile has "Outgoing T.38 INVITE include audio mline" checked.

Scenario:

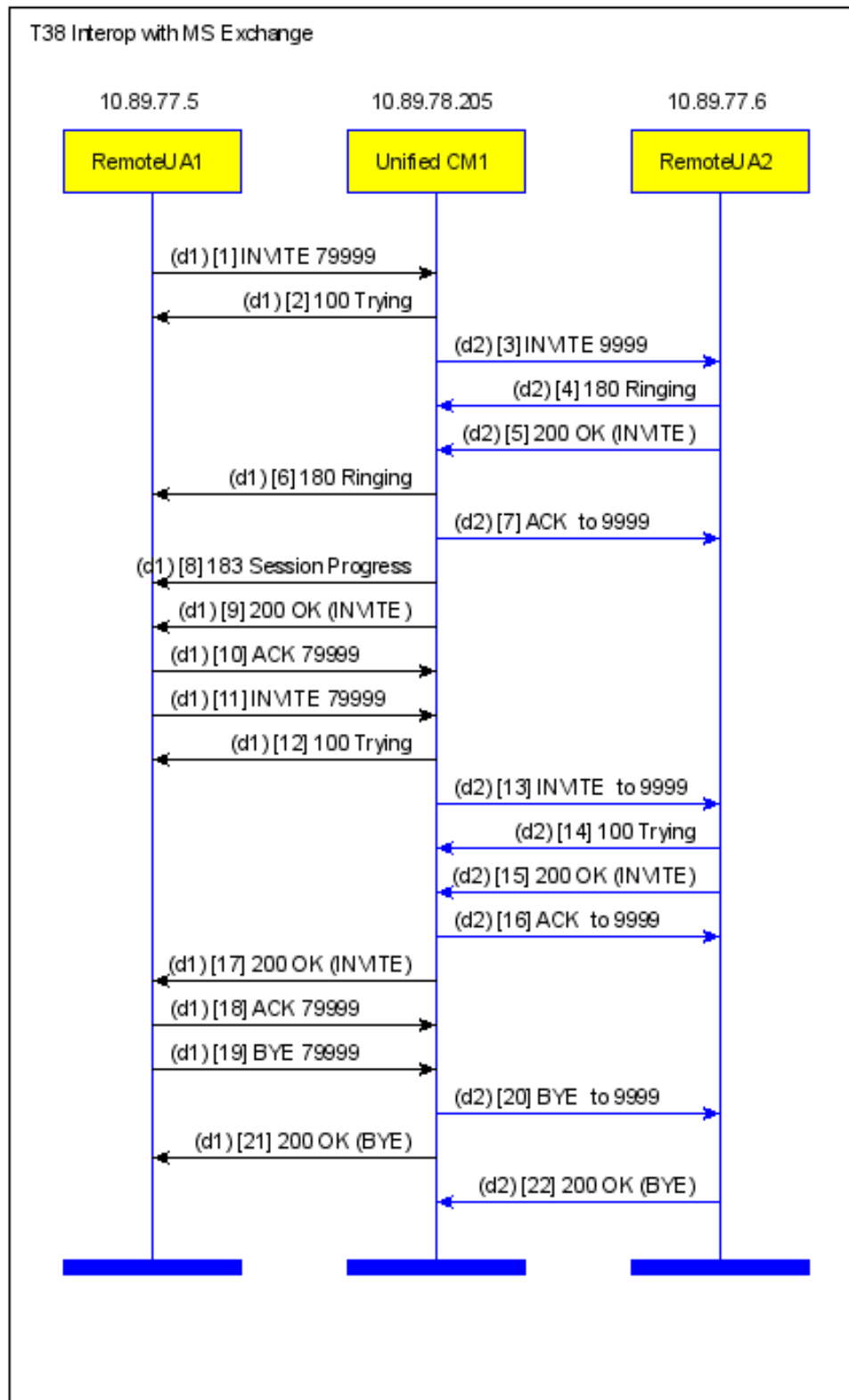
Fax A DN 2020 calls Fax B DN 9999 over the SIP Trunk by dialing 79999

Fax B DN 9999 Answers

Fax A DN 2020 goes onHook

End of Scenario

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[diagram] Call-ID:[prev][next]

[1] INVITE sip:79999@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.77.5:5060

From: 2020 <sip:2020@10.89.77.5:5060>;tag=1

To: sut <sip:79999@10.89.78.205:5060>

Call-ID: 1-19146@10.89.77.5

CSeq: 1 INVITE

Contact: sip:2020@10.89.77.5:5060

Max-Forwards: 70

Subject: Performance Test

Content-Type: application/sdp

Content-Length: 132

v=0

o=user1 53655765 2353687637 IN IP4 10.89.77.5

s=-

c=IN IP4 10.89.77.5

t=0 0

m=audio 10000 RTP/AVP 0

a=rtpmap:0 PCMU/8000

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.77.5:5060

From: 2020 <sip:2020@10.89.77.5:5060>;tag=1

To: sut <sip:79999@10.89.78.205:5060>

Date: Wed, 03 Nov 2010 16:22:24 GMT

Call-ID: 1-19146@10.89.77.5

CSeq: 1 INVITE

Allow-Events: presence

Content-Length: 0

[diagram] Call-ID:[prev][next]

[3] INVITE sip:9999@10.89.77.6:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb47214e6b8

From: "2020 " <sip:2020@10.89.78.205>;tag=220~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693

To: <sip:9999@10.89.77.6>

Date: Wed, 03 Nov 2010 16:22:24 GMT

Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Cisco-Guid: 2302469504-0000065536-0000000148-3444463882

Session-Expires: 1800

P-Asserted-Identity: "2020 " <sip:2020@10.89.78.205>

Remote-Party-ID: "2020 " <sip:2020@10.89.78.205>;party=calling;screen=yes;privacy=off

Contact: <sip:2020@10.89.78.205:5060;transport=tcp>

Max-Forwards: 69

Content-Length: 0

[diagram] Call-ID:[prev][next]

[4] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb47214e6b8

From: "2020 " <sip:2020@10.89.78.205>;tag=220~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693

To: <sip:9999@10.89.77.6>;tag=1

Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Contact: <sip:10.89.77.6:5060;transport=TCP>

Content-Length: 0

[diagram] Call-ID:[prev][next]

[5] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb47214e6b8

From: "2020 " <sip:2020@10.89.78.205>;tag=220~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693

To: <sip:9999@10.89.77.6>;tag=1

Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205

CSeq: 101 INVITE

Contact: <sip:10.89.77.6:5060;transport=TCP>

Content-Type: application/sdp

Content-Length: 132

v=0

o=user1 53655765 2353687637 IN IP4 10.89.77.6

s=-

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```
t=0 0
c=IN IP4 10.89.77.6
m=audio 10000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

```
Via: SIP/2.0/TCP 10.89.77.5:5060
From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
To: sut <sip:79999@10.89.78.205:5060>;tag=219~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
Date: Wed, 03 Nov 2010 16:22:24 GMT
Call-ID: 1-19146@10.89.77.5
CSeq: 1 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:9999@10.89.78.205>
Contact: <sip:79999@10.89.78.205:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] ACK sip:10.89.77.6:5060;transport=TCP SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb53c873617
From: "2020 " <sip:2020@10.89.78.205>;tag=220~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693
To: <sip:9999@10.89.77.6>;tag=1
Date: Wed, 03 Nov 2010 16:22:24 GMT
Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 154
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.77.5
t=0 0
m=audio 10000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 183 Session Progress

```
Via: SIP/2.0/TCP 10.89.77.5:5060
From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
To: sut <sip:79999@10.89.78.205:5060>;tag=219~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
Date: Wed, 03 Nov 2010 16:22:24 GMT
Call-ID: 1-19146@10.89.77.5
CSeq: 1 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:9999@10.89.78.205>
Contact: <sip:79999@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 154
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.77.6
t=0 0
m=audio 10000 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.77.5:5060
From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
To: sut <sip:79999@10.89.78.205:5060>;tag=219~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
Date: Wed, 03 Nov 2010 16:22:24 GMT
Call-ID: 1-19146@10.89.77.5
CSeq: 1 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: replaces
```

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Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:9999@10.89.78.205>
 Contact: <sip:79999@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 154

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.77.6
 t=0 0
 m=audio 10000 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:79999@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=219-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
 Call-ID: 1-19146@10.89.77.5
 CSeq: 1 ACK
 Contact: sip:2020@10.89.77.5:5060
 Max-Forwards: 70
 Subject: Performance Test
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INVITE sip:79999@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>
 Call-ID: 1-19146@10.89.77.5
 CSeq: 1 INVITE
 Contact: sip:2020@10.89.77.5:5060
 Max-Forwards: 70
 Subject: T.38 fax Test
 Content-Type: application/sdp
 Content-Length: 392

v=0
 o=user1 53655765 2353687637 IN IP4 10.89.77.5
 s=-
 c=IN IP4 10.89.77.5
 t=0 0
 m=audio 0 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 m=image 17678 udptl t38
 a=T38FaxVersion:0
 a=T38MaxBitRate:14400
 a=T38FaxFillBitRemoval:0
 a=T38FaxTranscodingMMR:0
 a=T38FaxTranscodingJBIG:0
 a=T38FaxRateManagement:transferredTCF
 a=T38FaxUdpEC:t38UDPredundancy
 a=T38FaxMaxBuffer:200
 a=T38FaxMaxDatagram:72

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=219-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
 Date: Wed, 03 Nov 2010 16:22:29 GMT
 Call-ID: 1-19146@10.89.77.5
 CSeq: 1 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] INVITE sip:10.89.77.6:5060;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb62199ecbe
 From: "2020 " <sip:2020@10.89.78.205>;tag=220-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693
 To: <sip:9999@10.89.77.6>;tag=1
 Date: Wed, 03 Nov 2010 16:22:29 GMT
 Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5

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```

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: "2020 " <sip:2020@10.89.78.205>
Remote-Party-ID: "2020 " <sip:2020@10.89.78.205>;party=calling;screen=yes;privacy=off
Contact: <sip:2020@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 414

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.77.5
t=0 0
m=audio 0 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20
m=image 17678 udptl t38
a=T38FaxVersion:0
a=T38MaxBitRate:14400
a=T38FaxFillBitRemoval:0
a=T38FaxTranscodingMMR:0
a=T38FaxTranscodingJBIG:0
a=T38FaxRateManagement:transferredTCF
a=T38FaxUdpEC:t38UDPRedundancy
a=T38FaxMaxBuffer:200
a=T38FaxMaxDatagram:72

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 100 Trying

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb62199ecbe
From: "2020 " <sip:2020@10.89.78.205>;tag=220~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693
To: <sip:9999@10.89.77.6>;tag=1;tag=1
Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205
CSeq: 102 INVITE
Contact: <sip:10.89.77.6:5060;transport=TCP>
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb62199ecbe
From: "2020 " <sip:2020@10.89.78.205>;tag=220~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693
To: <sip:9999@10.89.77.6>;tag=1;tag=1
Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205
CSeq: 102 INVITE
Contact: <sip:10.89.77.6:5060;transport=TCP>
Content-Type: application/sdp
Content-Length: 138

```

```

v=0
o=user1 53655765 2353687637 IN IP4 10.89.77.6
s=SIP Call
c=IN IP4 10.89.77.6
t=0 0
m=image 10000 udptl t38
c=IN IP4 10.89.77.6

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] ACK sip:10.89.77.6:5060;transport=TCP SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb758ff4dd2
From: "2020 " <sip:2020@10.89.78.205>;tag=220~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693
To: <sip:9999@10.89.77.6>;tag=1
Date: Wed, 03 Nov 2010 16:22:29 GMT
Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.77.5:5060
From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
To: sut <sip:79999@10.89.78.205:5060>;tag=219~164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
Date: Wed, 03 Nov 2010 16:22:29 GMT
Call-ID: 1-19146@10.89.77.5

```

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CSeq: 1 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:9999@10.89.78.205>
 Contact: <sip:79999@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] ACK sip:79999@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=219-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
 Call-ID: 1-19146@10.89.77.5
 CSeq: 1 ACK
 Contact: sip:2020@10.89.77.5:5060
 Max-Forwards: 70
 Subject: T38 Fax Test
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] BYE sip:79999@10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=219-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
 Call-ID: 1-19146@10.89.77.5
 CSeq: 2 BYE
 Contact: sip:2020@10.89.77.5:5060
 Max-Forwards: 70
 Subject: Performance Test
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] BYE sip:10.89.77.6:5060;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb84d6b4e2
 From: "2020 " <sip:2020@10.89.78.205>;tag=220-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693
 To: <sip:9999@10.89.77.6>;tag=1
 Date: Wed, 03 Nov 2010 16:22:29 GMT
 Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: "2020 " <sip:2020@10.89.78.205>
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.77.5:5060
 From: 2020 <sip:2020@10.89.77.5:5060>;tag=1
 To: sut <sip:79999@10.89.78.205:5060>;tag=219-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309692
 Date: Wed, 03 Nov 2010 16:22:34 GMT
 Call-ID: 1-19146@10.89.77.5
 CSeq: 2 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb84d6b4e2
 From: "2020 " <sip:2020@10.89.78.205>;tag=220-164963e8-a2d4-4fce-a700-197c5e73cfc1-19309693
 To: <sip:9999@10.89.77.6>;tag=1;tag=1
 Call-ID: 893ce580-cd118c40-42-cd4e590a@10.89.78.205
 CSeq: 103 BYE
 Contact: <sip:10.89.77.6:5060;transport=TCP>
 Content-Length: 0

CISCO CONFIDENTIAL**23. MMoH****23.1 Basic Hold-resume Call via an SIP ICT with MMOH enabled**

Title: Basic Hold-resume Call via an SIP ICT with MMOH enabled

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk which has MMOH (Multicast Music On Hold) feature enabled.

Cisco IP PhoneA registered to Cisco Unified CM1 calls Cisco IP PhoneB which is registered to Cisco Unified CM2.

Cisco Unified CM2 PhoneB initiated the "hold" and then resumed the call.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = SCCP on CM1

Phone = B, Line = 2001, IP = 10.13.5.220, Model = SIP TNP on CM2

Mmoh configuration steps:

1. configure a SIP ICT trunk between two UCM clusters.
2. go to Media Resources -> Music On Hold Audio Source. Select MOH Audio Stream Number. Select "Allow Multicasting" and save.
3. go to Media Resources -> Fixed MoH Audio Source. Select "Allow Multicasting" and save.
4. go to Media Resources -> Music on Hold Server. Click the MoH server that is going to be used for MMoH. Select "Enable Multicast Audio Sources on this MoH server". Save and reset.
5. Create a new MRG. Select "Use Multicast for MoH Audio". Move the MoH server in step 3 into this MRG.
6. Create a new MRGL. Move the MRG in step 4 into this MRGL.
7. Assign the MRGL to SIP ICT trunk.

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

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Scenario:

Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone B DN 1001 presses hold softkey

Phone A DN 2001 hears music on hold (MOH)

Duration short

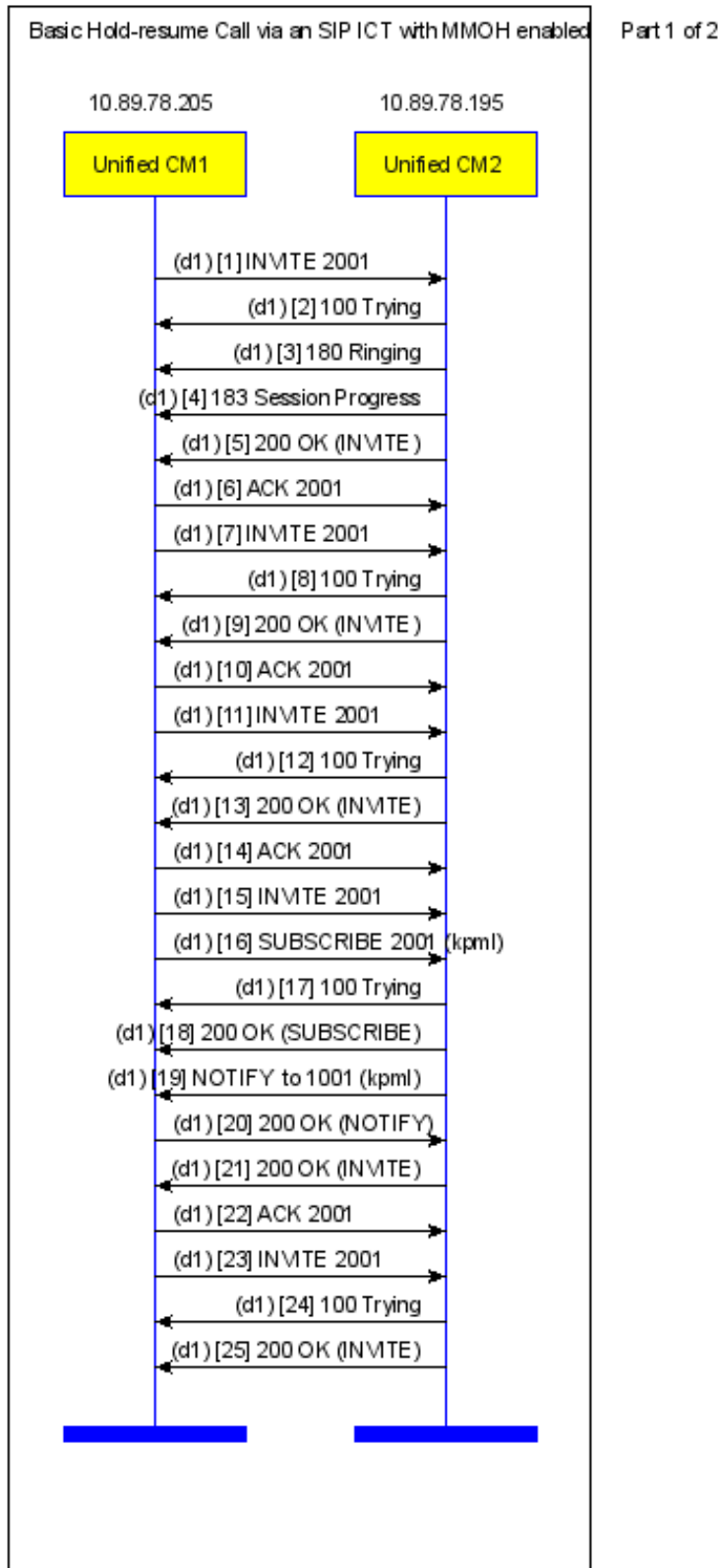
Phone B DN 1001 presses resume softkey

Phone A DN 1001 and Phone B DN 2001 have two-way speech

Phone A DN 1001 goes onHook

End of Scenario

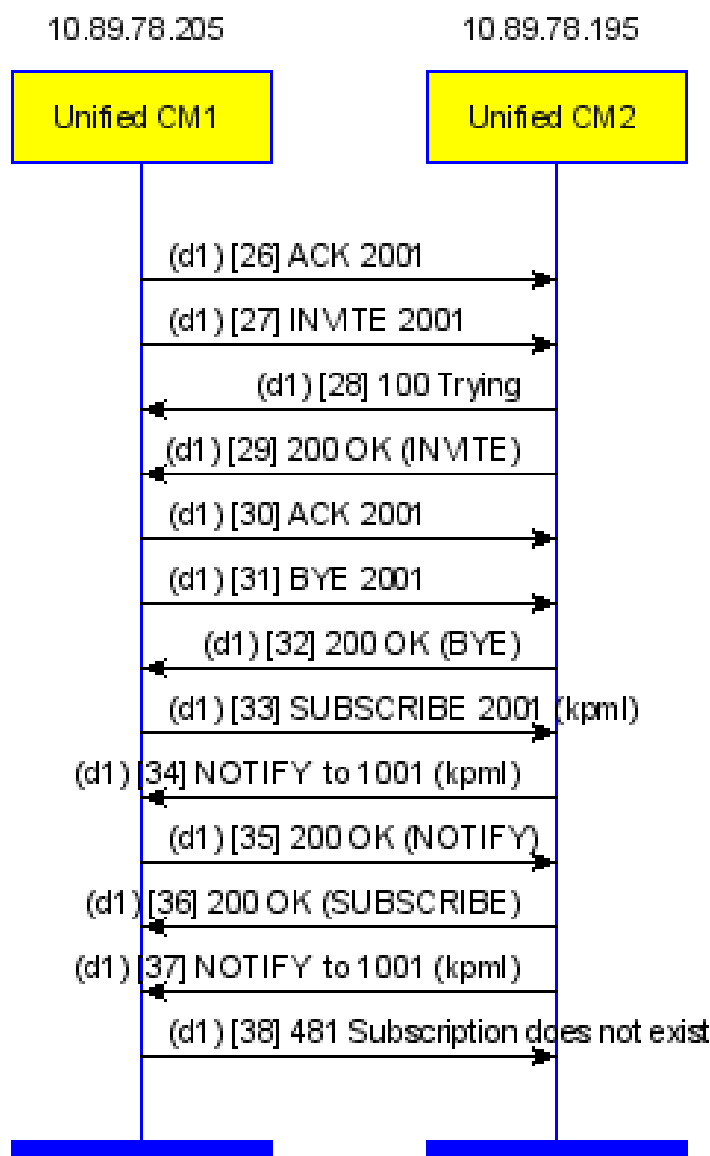
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Basic Hold-resume Call via an SIP ICT with MMOH enabled

Part 2 of 2



CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1452ca4bfe2
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>
 Date: Fri, 12 Nov 2010 21:29:42 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 4108070016-00000065536-0000000020-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1452ca4bfe2
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>
 Date: Fri, 12 Nov 2010 21:29:42 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1452ca4bfe2
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:42 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1452ca4bfe2
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:42 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22816 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000

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```

a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1452ca4bfe2
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:29:42 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 342

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.220
t=0 0
m=audio 22816 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1467fe13dce
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:29:42 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 211

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 29660 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1472ee6637f
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:29:54 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces

```

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Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 29660 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1472ee6637f
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:54 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1472ee6637f
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:54 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22816 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1487f0d64de
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:54 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 Max-Forwards: 70

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CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14930ba78fb
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:54 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14930ba78fb
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:54 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14930ba78fb
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:54 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22816 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14a5cc6a568

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From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:54 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 103 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 376

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22816 RTP/AVP 9 0 8 18 101
 a=X-cisco-media:mmoh
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[15] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14b51b2f19f
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:29:55 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 187

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 239.1.1.1
 t=0 0
 m=audio 16384 RTP/AVP 0
 a=X-cisco-media:mmoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=recvonly

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[16] SUBSCRIBE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14c300b885e
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 105 SUBSCRIBE
 Date: Fri, 12 Nov 2010 21:29:55 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Accept: application/kpml-response+xml
 Max-Forwards: 70

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Content-Type: application/kpml-request+xml
Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14b51b2f19f
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:29:55 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14c300b885e
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:29:55 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
CSeq: 105 SUBSCRIBE
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Expires: 7200
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK13be319782
From: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
To: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
CSeq: 101 NOTIFY
Max-Forwards: 70
Date: Fri, 12 Nov 2010 21:29:55 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK13be319782
From: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
To: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
Date: Fri, 12 Nov 2010 21:29:55 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
CSeq: 101 NOTIFY
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14b51b2f19f
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:29:55 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
CSeq: 104 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp

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Content-Length: 221

```
v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 239.1.1.1
t=0 0
m=audio 16384 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvnonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[22] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14d11165a80
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:29:55 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 104 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[23] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14e378c28f3
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:30:14 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 106 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1001@10.89.78.205>
Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 185
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 16384 RTP/AVP 0
a=X-cisco-media:mmoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[24] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14e378c28f3
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:30:14 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
CSeq: 106 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[25] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14e378c28f3
From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
Date: Fri, 12 Nov 2010 21:30:14 GMT
Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
CSeq: 106 INVITE
```

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Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 223

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22816 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK14f7209794b
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:30:14 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 106 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] INVITE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK150255e3031
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:30:15 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 107 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK150255e3031
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:30:15 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 107 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK150255e3031
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:30:15 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 107 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

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Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 22816 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1516d7835a0
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:30:15 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 107 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.13.5.217
 t=0 0
 m=audio 32570 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] BYE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1523d7cead9
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:30:15 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 108 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1523d7cead9
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:30:23 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 108 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[33] SUBSCRIBE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1534702fa9d

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From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 109 SUBSCRIBE
 Date: Fri, 12 Nov 2010 21:30:23 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[34] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1421c4c461f
 From: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 To: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Fri, 12 Nov 2010 21:30:23 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[35] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1421c4c461f
 From: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 To: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 Date: Fri, 12 Nov 2010 21:30:23 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[36] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1534702fa9d
 From: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 To: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 Date: Fri, 12 Nov 2010 21:30:23 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 109 SUBSCRIBE
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[37] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK14363e8d9ea
 From: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 To: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Fri, 12 Nov 2010 21:30:23 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[38] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK14363e8d9ea
 From: <sip:2001@10.89.78.195>;tag=3037~e811c00a-4a66-4296-a800-0718da03b731-23908641
 To: <sip:1001@10.89.78.205>;tag=822~1ebcd687-60ae-450a-823c-0469b2740097-24226774
 Date: Fri, 12 Nov 2010 21:30:23 GMT
 Call-ID: f4dc2c80-cdd1b1c6-41-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

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CISCO CONFIDENTIAL**24. IPv6****24.1 Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv4**

Title: Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv4

Description:

This flow shows a basic delayed media call from an IPv4 only SCCP Phone to a IPv4 only SIP Phone via a Dual Mode SIP Trunk with signaling preference set to IPv4. The call is setup using IPv4 for signaling, and IPv4 for media.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = IPv4 SCCP

Phone = B, Line = 2001, IP = 10.13.5.220, Model = IPv4 SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) The common device configuration associated to the trunk has
IP Addressing Mode set to IPv4 & IPv6, and the IP Addressing Mode for Signaling set to IPv4

Phone A, Phone B are configured with a common device configuration with IP Addressing Mode set to IPv4 so that they behave in IPv4 only mode.

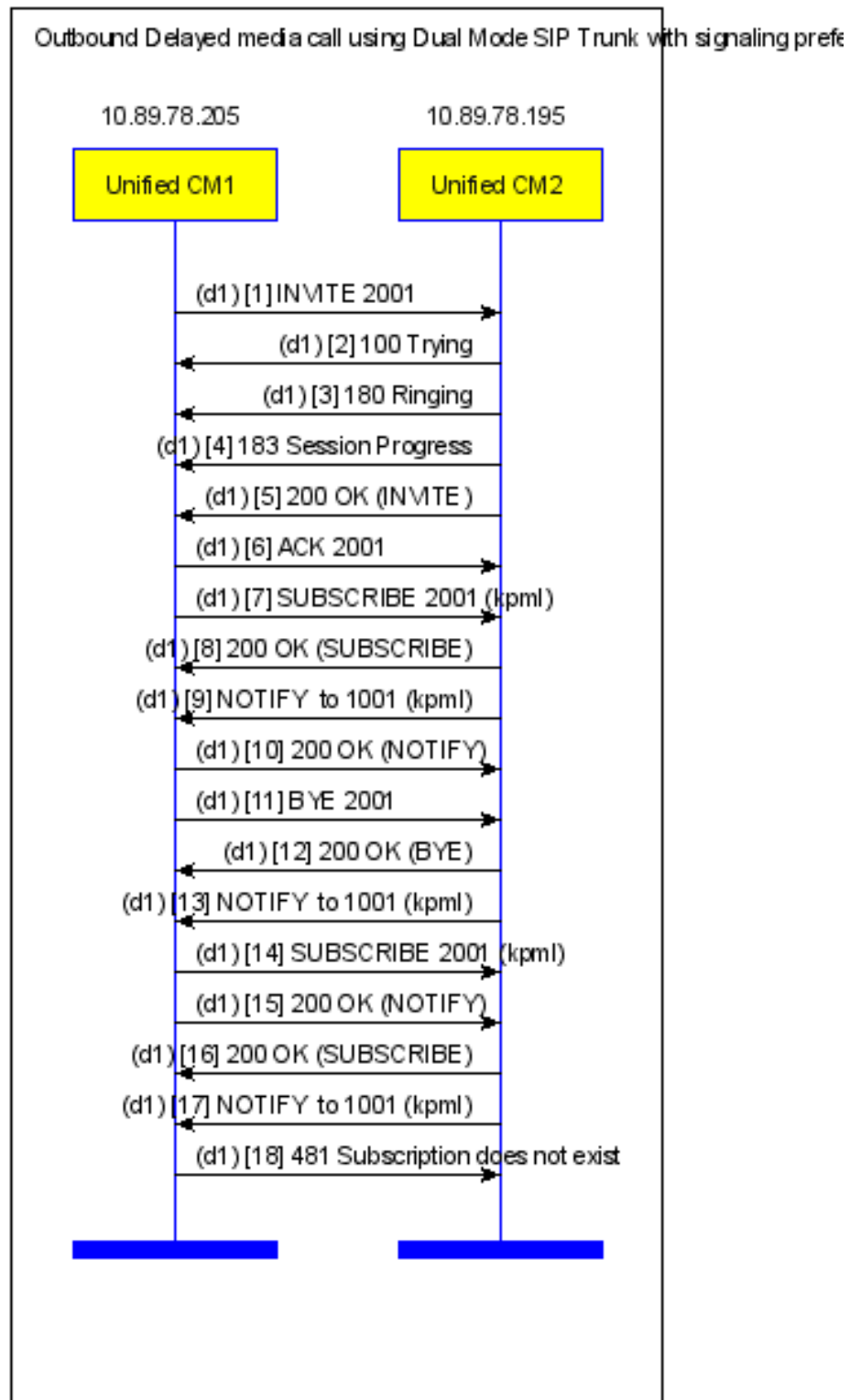
Scenario:

Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK0572ce9e4
 From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 To: <sip:2001@10.89.78.195>
 Date: Thu, 02 Dec 2010 04:25:19 GMT
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0709994240-00000065536-0000000001-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK0572ce9e4
 From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 To: <sip:2001@10.89.78.195>
 Date: Thu, 02 Dec 2010 04:25:19 GMT
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK0572ce9e4
 From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
 Date: Thu, 02 Dec 2010 04:25:19 GMT
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK0572ce9e4
 From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
 Date: Thu, 02 Dec 2010 04:25:19 GMT
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@10.89.78.195>
 Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.220
 t=0 0
 m=audio 25798 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000

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```

a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK0572ce9e4
From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
Date: Thu, 02 Dec 2010 04:25:19 GMT
Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2001@10.89.78.195>
Remote-Party-ID: <sip:2001@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 342

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.13.5.220
t=0 0
m=audio 25798 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK113873359
From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
Date: Thu, 02 Dec 2010 04:25:19 GMT
Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 212

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.78.205
t=0 0
m=audio 24576 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SUBSCRIBE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK279e64d18
From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Date: Thu, 02 Dec 2010 04:25:20 GMT

```

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User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 7200

Contact: <sip:10.89.78.205:5060;transport=tcp>

P-Asserted-Identity: <sip:1001@10.89.78.205>

Accept: application/kpml-response+xml

Max-Forwards: 70

Content-Type: application/kpml-request+xml

Content-Length: 370

<?xml version="1.0" encoding="UTF-8" ?>

<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

<pattern interdigittimer="7260000" persist="persist">

<regex tag="dtmf">[x*#ABCD]</regex>

</pattern>

</kpml-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[8] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK279e64d18

From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470

To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287

Date: Thu, 02 Dec 2010 04:25:20 GMT

Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205

CSeq: 102 SUBSCRIBE

Contact: <sip:2001@10.89.78.195:5060;transport=tcp>

Expires: 7200

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[9] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKd7ba0f8ed

From: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287

To: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470

Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205

CSeq: 101 NOTIFY

Max-Forwards: 70

Date: Thu, 02 Dec 2010 04:25:20 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Subscription-State: active;expires=7200

Contact: <sip:2001@10.89.78.195:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[10] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKd7ba0f8ed

From: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287

To: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470

Date: Thu, 02 Dec 2010 04:25:20 GMT

Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205

CSeq: 101 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[11] BYE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK325ffad6d

From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470

To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287

Date: Thu, 02 Dec 2010 04:25:19 GMT

Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

P-Asserted-Identity: <sip:1001@10.89.78.205>

CSeq: 103 BYE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[12] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK325ffad6d

From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470

To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287

Date: Thu, 02 Dec 2010 04:25:34 GMT

Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205

CSeq: 103 BYE

Content-Length: 0

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Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf42174530
 From: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
 To: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 04:25:34 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[14] SUBSCRIBE sip:2001@10.89.78.195:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK443af3554
 From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Date: Thu, 02 Dec 2010 04:25:34 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[15] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf42174530
 From: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
 To: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 Date: Thu, 02 Dec 2010 04:25:34 GMT
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[16] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK443af3554
 From: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 To: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
 Date: Thu, 02 Dec 2010 04:25:34 GMT
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[17] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK10152eb180
 From: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
 To: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 04:25:34 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2001@10.89.78.195:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[18] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK10152eb180
 From: <sip:2001@10.89.78.195>;tag=62~e811c00a-4a66-4296-a800-0718da03b731-31218287
 To: <sip:1001@10.89.78.205>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31217470
 Date: Thu, 02 Dec 2010 04:25:34 GMT

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Call-ID: 2a51a700-cf711faf-1-cd4e590a@10.89.78.205
CSeq: 103 NOTIFY
Content-Length: 0

CISCO CONFIDENTIAL**24.2 Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv6**

Title: Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv6

Description:

This flow shows a basic delayed media call from an IPv6 only SCCP Phone to a IPv6 only SCCP

Phone via a Dual Mode SIP Trunk with signaling preference set to IPv6. The call is setup using IPv6 for signaling, and IPv6 for media.

Configuration:

Node = Unified CM1, IP = 2001:420:1e00:bf:221:5eff:fe69:cdb

Node = Unified CM2, IP = 2001:420:1e00:bf:221:5eff:fe69:1627

Phone = A, Line = 1003, IP = fd6:2:6:5c:215:63ff:fece:a9b, Model = IPv6 SCCP

Phone = B, Line = 2002, IP = fd6:2:6:5c:214:a8ff:fe9e:f38f, Model = IPv6 SCCP

SIP Trunk between Unified CM1 & Unified CM2 has

a) route pattern 2.XXXX

b) The common device configuration associated to the trunk has

IP Addressing Mode set to IPv4 & IPv6, and the IP Addressing Mode for Signaling set to IPv6

Phone A, Phone B are configured with a common device configuration with IP Addressing Mode set to IPv6 so that they behave in IPv6 only mode.

Scenario:

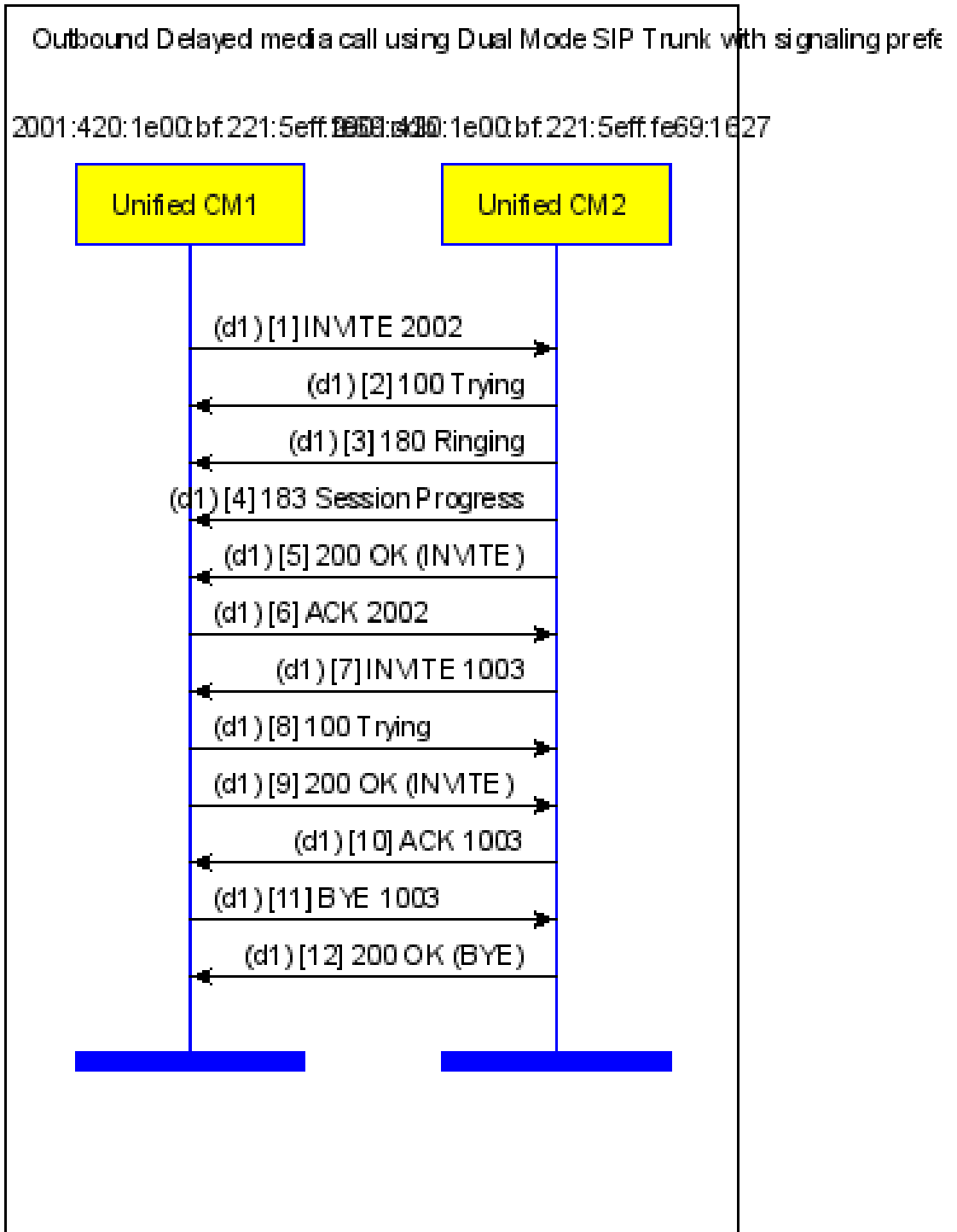
Phone A DN 1003 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1003 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060 SIP/2.0**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK055af6f80
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Date: Thu, 02 Dec 2010 18:20:08 GMT
 Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3383787904-0000065536-0000000001-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 Remote-Party-ID: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK055af6f80
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Date: Thu, 02 Dec 2010 18:20:08 GMT
 Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK055af6f80
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6-e811c00a-4a66-4296-a800-0718da03b731-31427465
 Date: Thu, 02 Dec 2010 18:20:08 GMT
 Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Remote-Party-ID: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK055af6f80
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6-e811c00a-4a66-4296-a800-0718da03b731-31427465
 Date: Thu, 02 Dec 2010 18:20:08 GMT
 Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Remote-Party-ID: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 373

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
 s=SIP Call
 c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
 t=0 0
 m=audio 4000 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20

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```

a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK055af6f80
From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6-e811c00a-4a66-4296-a800-0718da03b731-31427465
Date: Thu, 02 Dec 2010 18:20:08 GMT
Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
Remote-Party-ID: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 373

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
s=SIP Call
c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
t=0 0
m=audio 4000 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK17f32b143
From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6-e811c00a-4a66-4296-a800-0718da03b731-31427465
Date: Thu, 02 Dec 2010 18:20:08 GMT
Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 262

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP6 2001:420:1e00:bf:221:5eff:fe69:cdb
s=SIP Call
c=IN IP6 fd6:2:6:5c:215:63ff:fece:a9b
t=0 0
m=audio 27686 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] INVITE sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK1315873da
From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6-e811c00a-4a66-4296-a800-0718da03b731-31427465
To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
Date: Thu, 02 Dec 2010 18:20:10 GMT

```

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Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 3383787904-0000065536-0000000001-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Remote-Party-ID: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 252

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
 s=SIP Call
 c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
 t=0 0
 m=audio 25458 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 100 Trying

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK1315873da
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6-e811c00a-4a66-4296-a800-0718da03b731-31427465
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
 Date: Thu, 02 Dec 2010 18:20:10 GMT
 Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK1315873da
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6-e811c00a-4a66-4296-a800-0718da03b731-31427465
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
 Date: Thu, 02 Dec 2010 18:20:10 GMT
 Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Remote-Party-ID: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 250

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
 s=SIP Call
 c=IN IP6 fd6:2:6:5c:215:63ff:fece:a9b
 t=0 0
 m=audio 27686 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK26f325490
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6-e811c00a-4a66-4296-a800-0718da03b731-31427465
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=2-1ebcd687-60ae-450a-823c-0469b2740097-31427410
 Date: Thu, 02 Dec 2010 18:20:10 GMT
 Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

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Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] BYE sip:1003@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK21fc537e2
From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31427410
To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6~e811c00a-4a66-4296-a800-0718da03b731-31427465
Date: Thu, 02 Dec 2010 18:20:10 GMT
Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
CSeq: 102 BYE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK21fc537e2
From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=2~1ebcd687-60ae-450a-823c-0469b2740097-31427410
To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=6~e811c00a-4a66-4296-a800-0718da03b731-31427465
Date: Thu, 02 Dec 2010 18:20:33 GMT
Call-ID: c9b08180-cf71e358-1-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 102 BYE
Content-Length: 0

CISCO CONFIDENTIAL**24.3 Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv6, media IPv4**

Title: Outbound Delayed media call using Dual Mode SIP Trunk with signaling preference IPv6, media IPv4

Description:

This flow shows a basic delayed media call from an IPv4 only SCCP Phone to a IPv4 only SIP Phone via a Dual Mode SIP Trunk with signaling preference set to IPv6. The call is setup using IPv6 for signaling, and IPv4 for media.

Configuration:

Node = Unified CM1, IP = 2001:420:1e00:bf:221:5eff:fe69:cdb

Node = Unified CM2, IP = 2001:420:1e00:bf:221:5eff:fe69:1627

Phone = A, Line = 1001, IP = 10.8.28.121, Model = IPv4 SCCP

Phone = B, Line = 2001, IP = 10.8.28.120, Model = IPv4 SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has

a) route pattern 2.XXXX

b) The common device configuration associated to the trunk has

IP Addressing Mode set to IPv4 & IPv6, and the IP Addressing Mode for Signaling set to IPv6

Phone A, Phone B are configured with a common device configuration with IP Addressing Mode set to IPv4 so that they behave in IPv4 only mode.

Scenario:

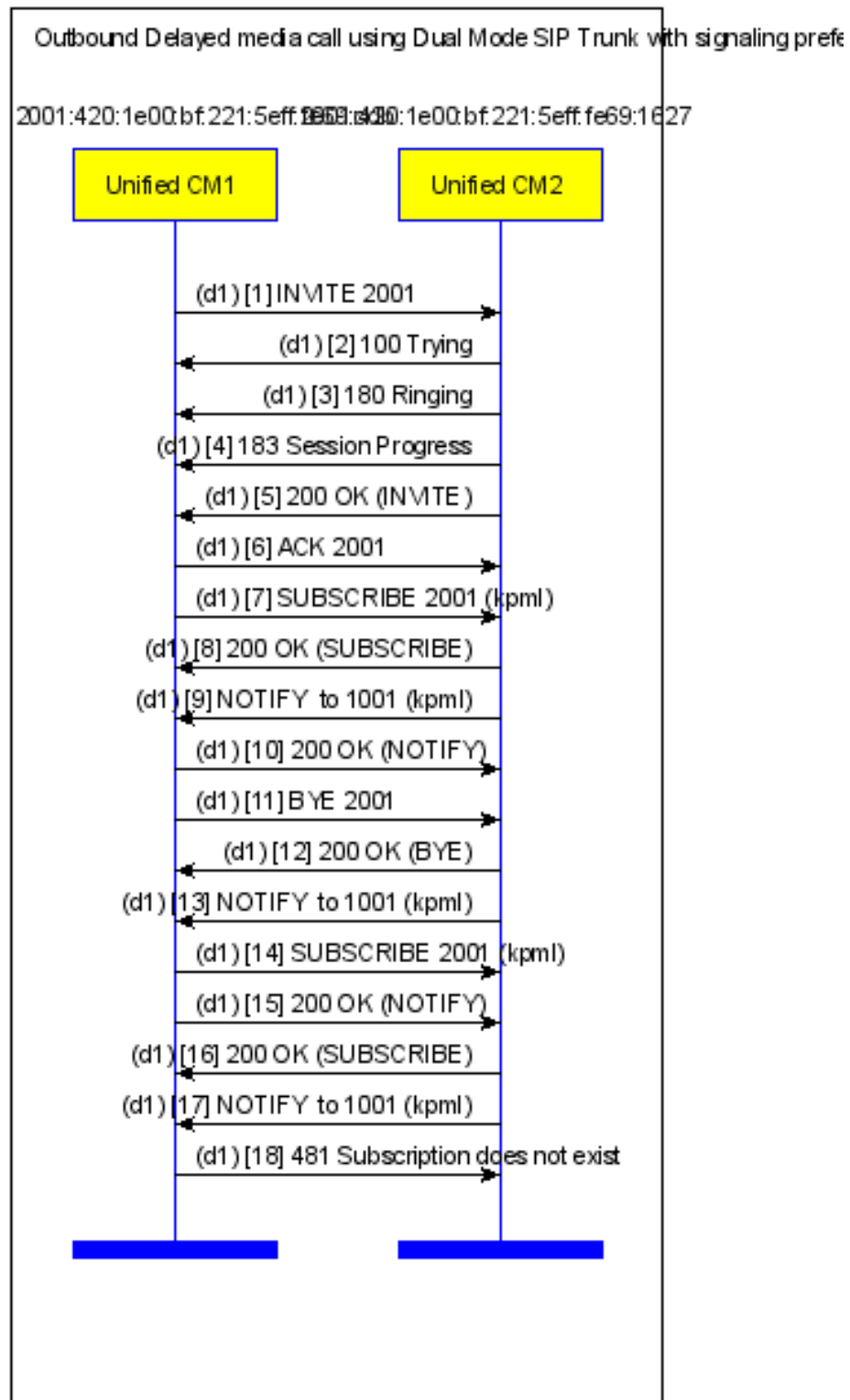
Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone B DN 2001 Answers

Phone A DN 1001 goes onHook

End of Scenario

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Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK571c122a1
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Date: Thu, 02 Dec 2010 18:41:51 GMT
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3528886016-0000065536-0000000002-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 Remote-Party-ID: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK571c122a1
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Date: Thu, 02 Dec 2010 18:41:51 GMT
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK571c122a1
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
 Date: Thu, 02 Dec 2010 18:41:51 GMT
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Remote-Party-ID: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK571c122a1
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
 Date: Thu, 02 Dec 2010 18:41:51 GMT
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Remote-Party-ID: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.120
 t=0 0
 m=audio 18376 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 aptime:20

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```

a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK571c122a1
From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
Date: Thu, 02 Dec 2010 18:41:51 GMT
Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>
Remote-Party-ID: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 342

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
c=IN IP4 10.8.28.120
t=0 0
m=audio 18376 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[6] ACK sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK6241395a9
From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
Date: Thu, 02 Dec 2010 18:41:51 GMT
Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 212

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.89.78.205
t=0 0
m=audio 24588 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[7] SUBSCRIBE sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK71b322d16
From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 102 SUBSCRIBE

```


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Date: Thu, 02 Dec 2010 18:41:52 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 7200

Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>

P-Asserted-Identity: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>

Accept: application/kpml-response+xml

Max-Forwards: 70

Content-Type: application/kpml-request+xml

Content-Length: 370

<?xml version="1.0" encoding="UTF-8" ?>

<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

<pattern interdigittimer="7260000" persist="persist">

<regex tag="dtmf">[x*#ABCD]</regex>

</pattern>

</kpml-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[8] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK71b322d16

From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469

Date: Thu, 02 Dec 2010 18:41:52 GMT

Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 102 SUBSCRIBE

Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>

Expires: 7200

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[9] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK12186aea29

From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469

To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420

Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 101 NOTIFY

Max-Forwards: 70

Date: Thu, 02 Dec 2010 18:41:52 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Subscription-State: active;expires=7200

Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[10] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK12186aea29

From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469

To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420

Date: Thu, 02 Dec 2010 18:41:52 GMT

Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 101 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[11] BYE sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK85abf8d7e

From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469

Date: Thu, 02 Dec 2010 18:41:51 GMT

Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

P-Asserted-Identity: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>

CSeq: 103 BYE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[12] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK85abf8d7e

From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469

Date: Thu, 02 Dec 2010 18:42:09 GMT

Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 103 BYE

Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[13] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK142e909474
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 18:42:09 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[14] SUBSCRIBE sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK9504080c5
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 104 SUBSCRIBE
 Date: Thu, 02 Dec 2010 18:42:09 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[15] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK142e909474
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 Date: Thu, 02 Dec 2010 18:42:09 GMT
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[16] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK9504080c5
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
 Date: Thu, 02 Dec 2010 18:42:09 GMT
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 104 SUBSCRIBE
 Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[17] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK15486a62ec
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420
 Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 18:42:09 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[18] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK15486a62ec
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=29-e811c00a-4a66-4296-a800-0718da03b731-31427469
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=6-1ebcd687-60ae-450a-823c-0469b2740097-31427420

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Date: Thu, 02 Dec 2010 18:42:09 GMT

Call-ID: d2568700-cf71e86f-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 103 NOTIFY

Content-Length: 0

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Title: Inbound Delayed media call using IPv6 only SIP Trunk

Description:

This flow shows a basic delayed media call from an IPv6 only SCCP Phone to a IPv4 only SCCP Phone via a IPv6 only SIP Trunk. The call is setup using IPv6 for signaling, and IPv6 for media. A dual stack MTP that supports conversion between IPv4 and IPv6 will be allocated on Unified CM1

Configuration:

Node = Unified CM1, IP = 2001:420:1e00:bf:221:5eff:fe69:cdb

Node = Unified CM2, IP = 2001:420:1e00:bf:221:5eff:fe69:1627

Phone = A, Line = 1001, IP = 10.8.28.121, Model = IPv4 SCCP

Phone = B, Line = 2002, IP = fd6:2:6:5c:214:a8ff:fe9e:f38f, Model = IPv6 SCCP

SIP Trunk between Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) The common device configuration associated to the trunk has
IP Addressing Mode set to IPv6

Phone A is configured with a common device configuration with
IP Addressing Mode set to IPv4 so that it behaves in IPv4 only mode.

Phone B is configured with a common device configuration with
IP Addressing Mode set to IPv6 so that it behaves in IPv6 only mode.

Configure a Dual Stack MTP that supports IPv4/IPv6 conversion on Unified CM1

Scenario:

Phone B DN 2002 calls Phone A DN 1001 over the SIP Trunk by dialing 11001

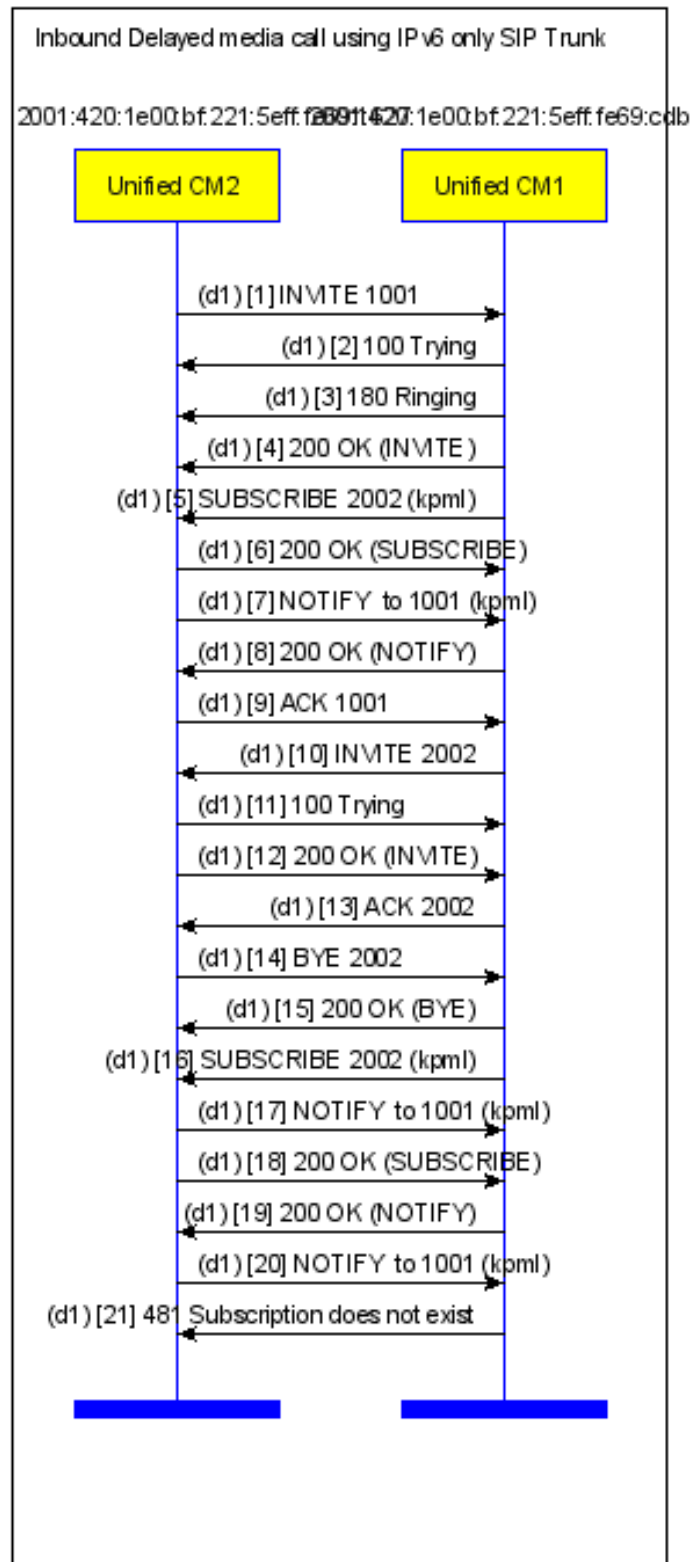
Phone A DN 1001 Answers

Phone A DN 1001 goes onHook

End of Scenario

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[[diagram](#)] [Call-ID:\[prev\]](#)[\[next\]](#)

[1] INVITE sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060 SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bKe606029ab

From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184

To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>

Date: Thu, 02 Dec 2010 23:25:32 GMT

Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 1940194176-0000065536-0000000003-3276691722

Session-Expires: 1800

P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>

Remote-Party-ID: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=calling;screen=yes;privacy=off

Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>

Max-Forwards: 70

Content-Length: 0

[[diagram](#)] [Call-ID:\[prev\]](#)[\[next\]](#)

[2] SIP/2.0 100 Trying

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bKe606029ab

From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184

To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>

Date: Thu, 02 Dec 2010 23:25:32 GMT

Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[[diagram](#)] [Call-ID:\[prev\]](#)[\[next\]](#)

[3] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bKe606029ab

From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184

To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387

Date: Thu, 02 Dec 2010 23:25:32 GMT

Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence

Supported: X-cisco-srtp-fallback

Supported: Geolocation

P-Asserted-Identity: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>

Remote-Party-ID: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;party=called;screen=yes;privacy=off

Contact: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>

Content-Length: 0

[[diagram](#)] [Call-ID:\[prev\]](#)[\[next\]](#)

[4] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bKe606029ab

From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184

To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387

Date: Thu, 02 Dec 2010 23:25:32 GMT

Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence, kpml

Supported: replaces

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

Require: timer

P-Asserted-Identity: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>

Remote-Party-ID: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;party=called;screen=yes;privacy=off

Contact: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>

Content-Type: application/sdp

Content-Length: 378

v=0

o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:420:1e00:bf:221:5eff:fe69:cdb

s=SIP Call

c=IN IP6 2001:420:1e00:c6:21f:9eff:fe11:3aa0

t=0 0

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```
m=audio 4000 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)

[5] SUBSCRIBE sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK67a0af807
From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
CSeq: 101 SUBSCRIBE
Date: Thu, 02 Dec 2010 23:25:37 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)

[6] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK67a0af807
From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
Date: Thu, 02 Dec 2010 23:25:37 GMT
Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
CSeq: 101 SUBSCRIBE
Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
Expires: 7200
Content-Length: 0
```

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)

[7] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bKf46f89147
From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Thu, 02 Dec 2010 23:25:37 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
Content-Length: 0
```

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)

[8] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bKf46f89147
From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
Date: Thu, 02 Dec 2010 23:25:37 GMT
Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
CSeq: 102 NOTIFY
Content-Length: 0
```

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)

[9] ACK sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0

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Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK107d198483
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76-e811c00a-4a66-4296-a800-0718da03b731-31472184
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7-1ebcd687-60ae-450a-823c-0469b2740097-31472387
 Date: Thu, 02 Dec 2010 23:25:32 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 264

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
 s=SIP Call
 c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
 t=0 0
 m=audio 23092 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=recvonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] INVITE sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK7732a8d77
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7-1ebcd687-60ae-450a-823c-0469b2740097-31472387
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76-e811c00a-4a66-4296-a800-0718da03b731-31472184
 Date: Thu, 02 Dec 2010 23:25:37 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 1940194176-0000065536-0000000003-3276691722
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 Remote-Party-ID: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;party=calling;screen=yes;privacy=off
 Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 257

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP6 2001:420:1e00:bf:221:5eff:fe69:cdb
 s=SIP Call
 c=IN IP6 2001:420:1e00:c6:21f:9eff:fe11:3aa0
 t=0 0
 m=audio 19438 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK7732a8d77
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7-1ebcd687-60ae-450a-823c-0469b2740097-31472387
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76-e811c00a-4a66-4296-a800-0718da03b731-31472184
 Date: Thu, 02 Dec 2010 23:25:37 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK7732a8d77
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7-1ebcd687-60ae-450a-823c-0469b2740097-31472387
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76-e811c00a-4a66-4296-a800-0718da03b731-31472184
 Date: Thu, 02 Dec 2010 23:25:37 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml

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Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Remote-Party-ID: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 252

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
 s=SIP Call
 c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
 t=0 0
 m=audio 23092 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] ACK sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK87c2951a4
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 Date: Thu, 02 Dec 2010 23:25:37 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[14] BYE sip:2002@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK114a88c553
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 Date: Thu, 02 Dec 2010 23:25:37 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 CSeq: 103 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[15] SIP/2.0 200 OK
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK114a88c553
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 Date: Thu, 02 Dec 2010 23:25:45 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 103 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[16] SUBSCRIBE sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK9357240ba
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 103 SUBSCRIBE
 Date: Thu, 02 Dec 2010 23:25:45 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[17] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK123dd20d0f
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 104 NOTIFY
 Max-Forwards: 70

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Date: Thu, 02 Dec 2010 23:25:45 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK9357240ba
 From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 To: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 Date: Thu, 02 Dec 2010 23:25:45 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 103 SUBSCRIBE
 Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK123dd20d0f
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 Date: Thu, 02 Dec 2010 23:25:45 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 104 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK13c5fd5ad
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 105 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 23:25:45 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 P-Asserted-Identity: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK13c5fd5ad
 From: <sip:2002@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=76~e811c00a-4a66-4296-a800-0718da03b731-31472184
 To: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=7~1ebcd687-60ae-450a-823c-0469b2740097-31472387
 Date: Thu, 02 Dec 2010 23:25:45 GMT
 Call-ID: 73a50380-cf812aec-6-c34e590a@2001:420:1e00:bf:221:5eff:fe69:1627
 CSeq: 105 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**24.5 Outbound early offer call using IPv6 only SIP Trunk**

Title: Outbound early offer call using IPv6 only SIP Trunk

Description:

This flow shows a basic early offer call from an IPv6 only SCCP Phone to a IPv4 only SIP Phone via a IPv6 only SIP Trunk. The call is setup using IPv6 for signaling, and IPv6 for media. A dual stack MTP that support IPv6 will be allocated for sending SDP in the INVITE on unified CM1.

A dual stack MTP that supports conversion between IPv4 and IPv6 will be allocated on Unified CM2

Configuration:

Node = Unified CM1, IP = 2001:420:1e00:bf:221:5eff:fe69:cdb

Node = Unified CM2, IP = 2001:420:1e00:bf:221:5eff:fe69:1627

Phone = A, Line = 1003, IP = fd6:2:6:5c:215:63ff:fece:a9b, Model = IPv6 SCCP

Phone = B, Line = 2001, IP = 10.8.28.120, Model = IPv4 SIP TNP

SIP Trunk between Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) The common device configuration associated to the trunk has
IP Addressing Mode set to IPv6

Phone A is configured with a common device configuration with
IP Addressing Mode set to IPv6 so that it behaves in IPv6 only mode.

Phone B is configured with a common device configuration with
IP Addressing Mode set to IPv4 so that it behaves in IPv4 only mode.

Configure a Dual Stack MTP that supports IPv4/IPv6 conversion on Unified CM1 and CM2

Scenario:

Phone A DN 1003 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

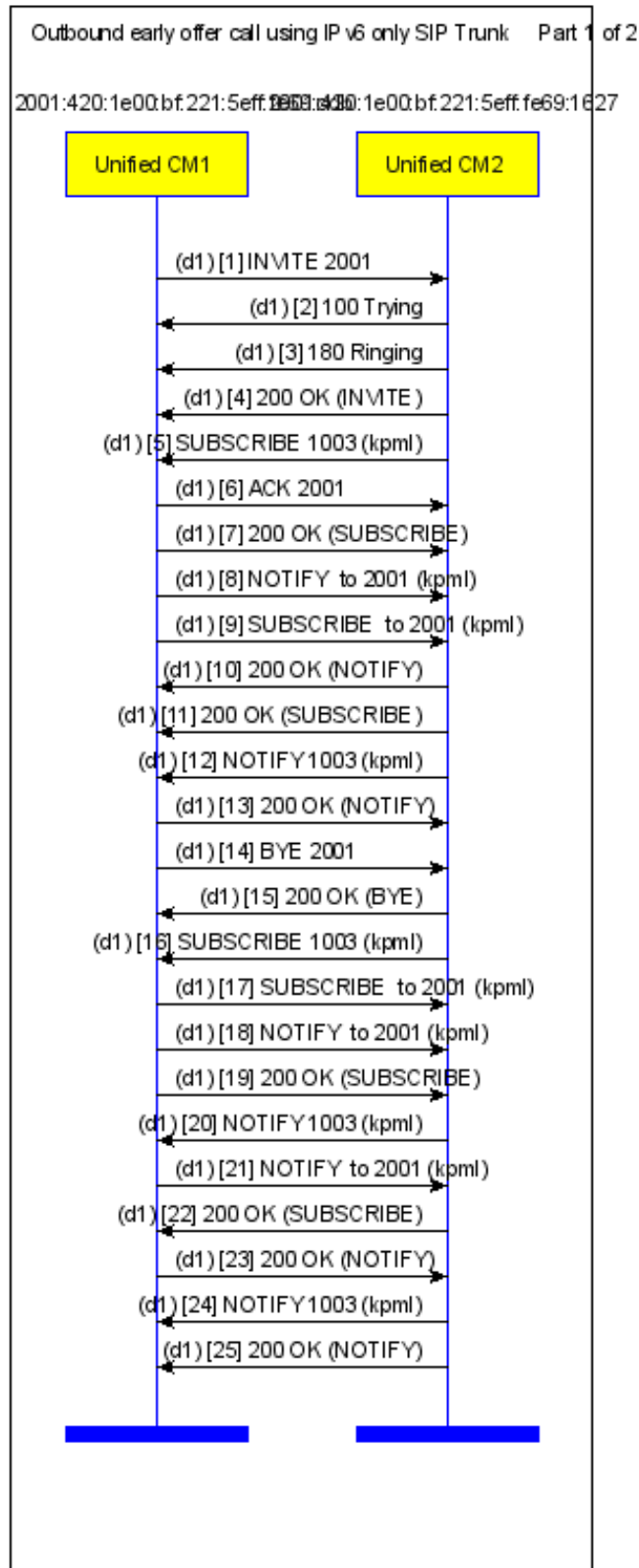
Phone B DN 2001 Answers

Phone A DN 1003 goes onHook

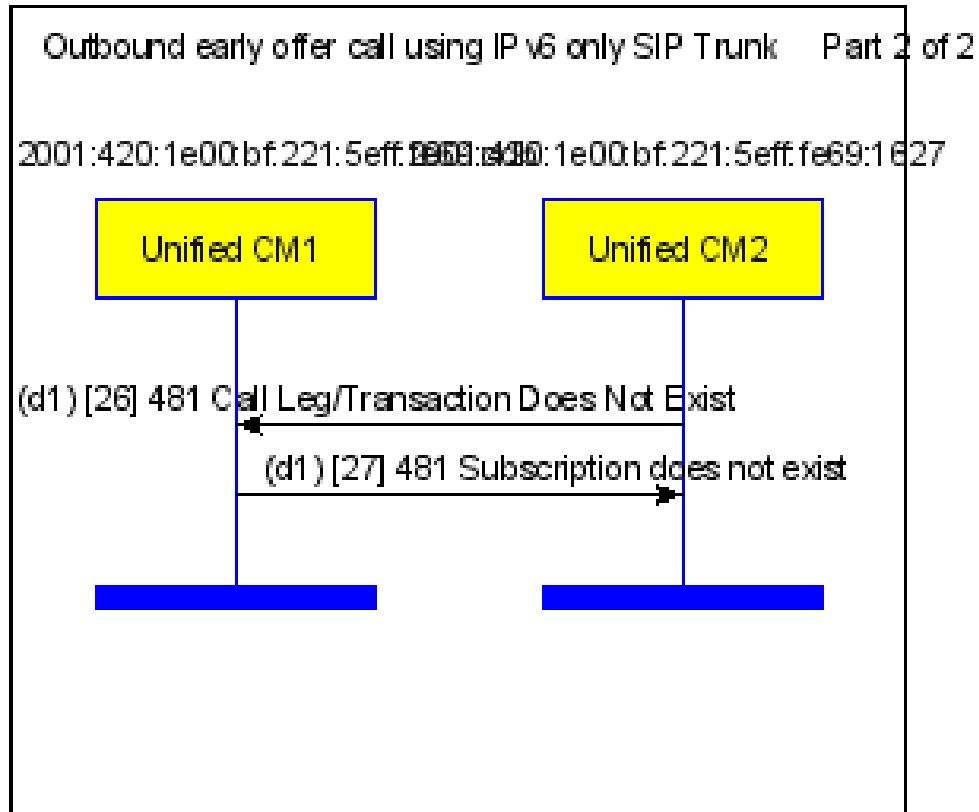
End of Scenario

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Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK12ae27f79
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Date: Fri, 03 Dec 2010 00:30:01 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 1975488512-0000065536-0000000006-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 Remote-Party-ID: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 257

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:420:1e00:bf:221:5eff:fe69:cdb
 s=SIP Call
 c=IN IP6 2001:420:1e00:c6:21f:9eff:fe11:3aa0
 t=0 0
 m=audio 16908 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK12ae27f79
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Date: Fri, 03 Dec 2010 00:30:01 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK12ae27f79
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 Date: Fri, 03 Dec 2010 00:30:01 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>
 Remote-Party-ID: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK12ae27f79
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 Date: Fri, 03 Dec 2010 00:30:01 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>

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Remote-Party-ID: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;party=called;screen=yes;privacy=off
 Contact: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 259

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
 s=SIP Call
 c=IN IP6 2001:420:1e00:c6:2a93:feff:fef8:5b40
 t=0 0
 m=audio 18554 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[5] SUBSCRIBE sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK26141e661a
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 SUBSCRIBE
 Date: Fri, 03 Dec 2010 00:30:02 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[6] ACK sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK133f77340d
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 Date: Fri, 03 Dec 2010 00:30:01 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK26141e661a
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 Date: Fri, 03 Dec 2010 00:30:02 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 101 SUBSCRIBE
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[8] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK1476a238b2
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 00:30:02 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>

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P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] SUBSCRIBE sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK151f926a1c
From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 103 SUBSCRIBE
Date: Fri, 03 Dec 2010 00:30:02 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] SIP/2.0 200 OK
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK1476a238b2
From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
Date: Fri, 03 Dec 2010 00:30:02 GMT
Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 102 NOTIFY
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] SIP/2.0 200 OK
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK151f926a1c
From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
Date: Fri, 03 Dec 2010 00:30:02 GMT
Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 103 SUBSCRIBE
Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
Expires: 7200
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] NOTIFY sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK276b0b4e01
From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Fri, 03 Dec 2010 00:30:02 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] SIP/2.0 200 OK
Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK276b0b4e01
From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
Date: Fri, 03 Dec 2010 00:30:02 GMT
Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
CSeq: 102 NOTIFY
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[14] BYE sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

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Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK161f07eca0
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 Date: Fri, 03 Dec 2010 00:30:01 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK161f07eca0
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SUBSCRIBE sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK29120763e1
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 103 SUBSCRIBE
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SUBSCRIBE sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK171e85073d
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 105 SUBSCRIBE
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK18510fb621
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK29120763e1
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 103 SUBSCRIBE
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

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[diagram] Call-ID: [prev][next]

[20] NOTIFY sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK2a7f3a0c12
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119-e811c00a-4a66-4296-a800-0718da03b731-31472194
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13-1ebcd687-60ae-450a-823c-0469b2740097-31472401
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 104 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Length: 0

[diagram] Call-ID: [prev][next]

[21] NOTIFY sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK196eadd11d
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13-1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119-e811c00a-4a66-4296-a800-0718da03b731-31472194
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 107 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[diagram] Call-ID: [prev][next]

[22] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK171e85073d
 From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13-1ebcd687-60ae-450a-823c-0469b2740097-31472401
 To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119-e811c00a-4a66-4296-a800-0718da03b731-31472194
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 105 SUBSCRIBE
 Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[diagram] Call-ID: [prev][next]

[23] SIP/2.0 200 OK

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK2a7f3a0c12
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119-e811c00a-4a66-4296-a800-0718da03b731-31472194
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13-1ebcd687-60ae-450a-823c-0469b2740097-31472401
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 104 NOTIFY
 Content-Length: 0

[diagram] Call-ID: [prev][next]

[24] NOTIFY sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK2b62c22e66
 From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119-e811c00a-4a66-4296-a800-0718da03b731-31472194
 To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13-1ebcd687-60ae-450a-823c-0469b2740097-31472401
 Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb
 CSeq: 105 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 00:30:11 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:[2001:420:1e00:bf:221:5eff:fe69:1627]:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

CISCO CONFIDENTIAL**[diagram]** Call-ID: **[prev]****[next]****[25] SIP/2.0 200 OK**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK18510fb621

From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194

Date: Fri, 03 Dec 2010 00:30:11 GMT

Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 106 NOTIFY

Content-Length: 0

[diagram] Call-ID: **[prev]****[next]****[26] SIP/2.0 481 Call Leg/Transaction Does Not Exist**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK196eadd11d

From: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194

Date: Fri, 03 Dec 2010 00:30:11 GMT

Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 107 NOTIFY

Content-Length: 0

[diagram] Call-ID: **[prev]****[next]****[27] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:1627]:5060;branch=z9hG4bK2b62c22e66

From: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=119~e811c00a-4a66-4296-a800-0718da03b731-31472194

To: <sip:1003@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=13~1ebcd687-60ae-450a-823c-0469b2740097-31472401

Date: Fri, 03 Dec 2010 00:30:11 GMT

Call-ID: 75bf9000-cf813a09-6-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 105 NOTIFY

Content-Length: 0

CISCO CONFIDENTIAL**24.6 Outbound delayed offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv4**

Title: Outbound delayed offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv4

Description:

This flow shows a delayed offer call from a IPv4_IPv6 SCCP Phone (Media preference IPv4) to a IPv4_IPv6 SCCP

Phone via a Dual Mode SIP Trunk with ANAT enabled.

Since ANAT is enabled, CM2, will offer both IPv4 and IPv6 in the Offer, and since the media preference is IPv4 for the originating phone, IPv4 will be used for media.

The call is setup using IPv4 for signaling, and IPv4 for media.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1003, IPv4 = 10.8.28.104, Model = IPV4_IPv6 SCCP

Phone = A, Line = 1003, IPv6 = fd6:2:6:5c:215:63ff:fece:a9b, Model = IPv4_IPv6 SCCP

Phone = B, Line = 2002, IPv4 = 10.8.28.253, Model = IPv4_IPv6 SCCP

Phone = B, Line = 2002, IPv6 = fd6:2:6:5c:214:a8ff:fe9e:f38f, Model = IPv4_IPv6 SCCP

SIP Trunk between Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) The common device configuration associated to the trunk has
 - IP Addressing Mode set to IPv4 & IPv6, IP Addressing Mode Signaling Preference is set to IPv4
- c) SIP Trunk has a SIP Profile associated with the "Enable ANAT" checkbox checked

Phone A, Phone B are configured with a common device configuration with IP Addressing Mode set to IPv4_IPv6 so that they behave in dual mode.

Enterprise parameter, IP Address Mode preference for Media is set to IPv4

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Scenario:

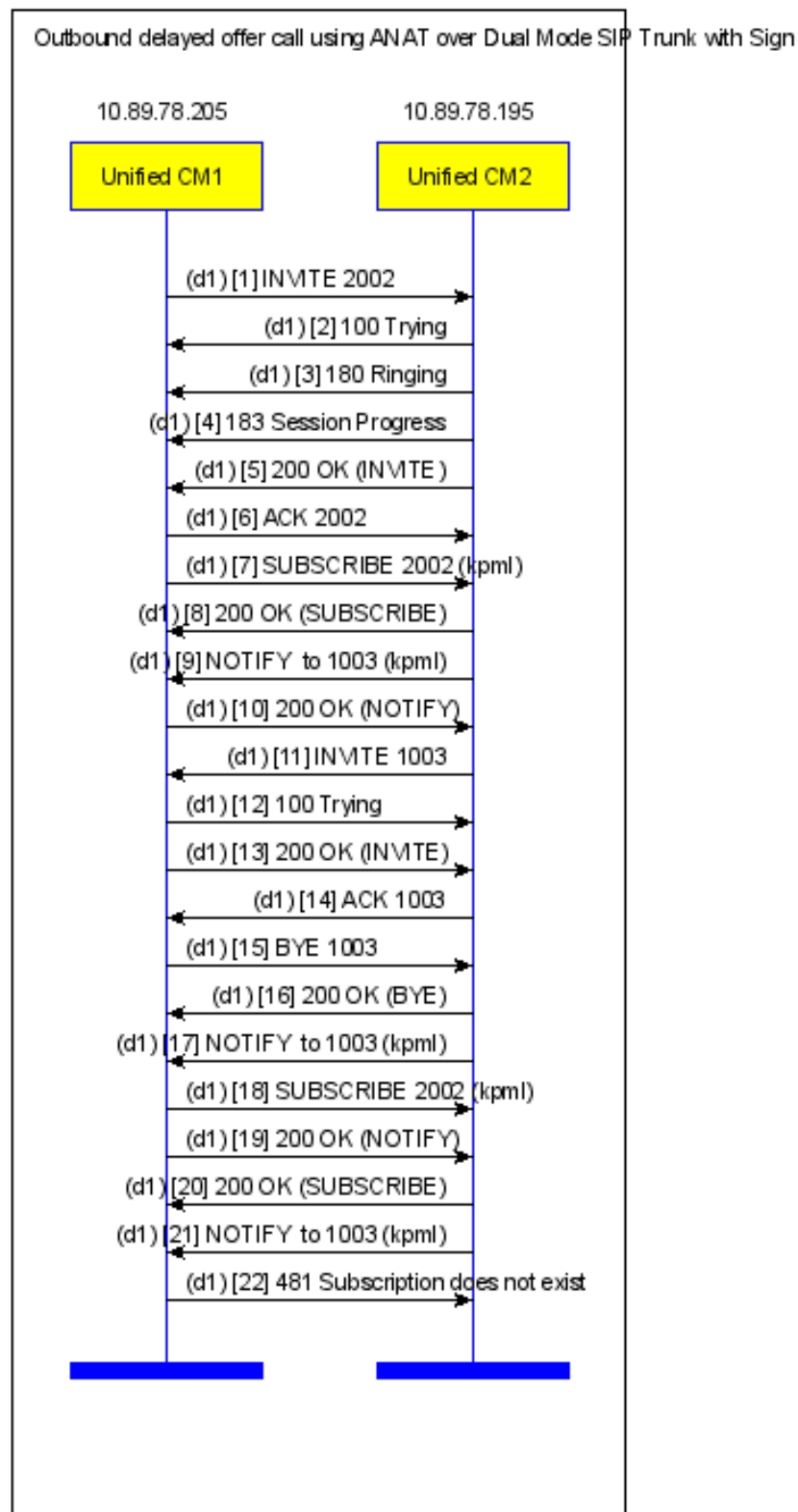
Phone A DN 1003 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1003 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5709e57c3
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 19:10:29 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces,sdp-anat
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3529016832-0000065536-0000000002-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5709e57c3
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 19:10:29 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5709e57c3
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 Date: Thu, 02 Dec 2010 19:10:29 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5709e57c3
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 Date: Thu, 02 Dec 2010 19:10:29 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Require: sdp-anat
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 588

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 t=0 0
 a=group:ANAT 1 2
 m=audio 4000 RTP/AVP 9 0 8 18 101
 c=IN IP4 10.8.28.253
 a=rtpmap:9 G722/8000

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```

a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=mid:1
m=audio 4000 RTP/AVP 9 0 8 18
c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=mid:2

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5709e57c3
From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
Date: Thu, 02 Dec 2010 19:10:29 GMT
Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Require: sdp-anat
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 588

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
s=SIP Call
t=0 0
a=group:ANAT 1 2
m=audio 4000 RTP/AVP 9 0 8 18 101
c=IN IP4 10.8.28.253
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=mid:1
m=audio 4000 RTP/AVP 9 0 8 18
c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=mid:2

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK6377a2fd9
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 Date: Thu, 02 Dec 2010 19:10:29 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 475

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.205
 s=SIP Call
 t=0 0
 a=group:ANAT 1
 m=audio 24596 RTP/AVP 0 101
 c=IN IP4 10.89.78.205
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=recvonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=mid:1
 m=audio 0 RTP/AVP 9 0 8 18
 c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=sendonly
 a=mid:2

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK751862666
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Date: Thu, 02 Dec 2010 19:10:30 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK751862666
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 Date: Thu, 02 Dec 2010 19:10:30 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK679617752

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From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 19:10:30 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK679617752
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Date: Thu, 02 Dec 2010 19:10:30 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INVITE sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK735ccfbab
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Date: Thu, 02 Dec 2010 19:10:31 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces,sdp-anat
 Min-SE: 1800
 Cisco-Guid: 3529016832-0000065536-0000000002-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 232

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.253
 t=0 0
 m=audio 32612 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 m=audio 0 RTP/AVP 9

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK735ccfbab
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Date: Thu, 02 Dec 2010 19:10:31 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK735ccfbab
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Date: Thu, 02 Dec 2010 19:10:31 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml

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Supported: replaces
 Supported: sdp-anat
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 249

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 a=group:ANAT 1
 m=audio 24596 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 m=audio 0 RTP/AVP 9

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] ACK sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK842681ad2
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Date: Thu, 02 Dec 2010 19:10:31 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] BYE sip:1003@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK82217c122
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 Date: Thu, 02 Dec 2010 19:10:31 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK82217c122
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 Date: Thu, 02 Dec 2010 19:10:39 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK916296435
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 19:10:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9466ad428
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631

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Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Date: Thu, 02 Dec 2010 19:10:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK916296435
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Date: Thu, 02 Dec 2010 19:10:39 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK9466ad428
 From: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 To: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 Date: Thu, 02 Dec 2010 19:10:39 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa1ded45c5
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 104 NOTIFY
 Max-Forwards: 70
 Date: Thu, 02 Dec 2010 19:10:39 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKa1ded45c5
 From: <sip:2002@10.89.78.195>;tag=10~e811c00a-4a66-4296-a800-0718da03b731-31438631
 To: <sip:1003@10.89.78.205>;tag=4~1ebcd687-60ae-450a-823c-0469b2740097-31438007
 Date: Thu, 02 Dec 2010 19:10:39 GMT
 Call-ID: d2588600-cf71ef25-2-cd4e590a@10.89.78.205
 CSeq: 104 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**24.7 Outbound delayed offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv4, terminating phone IPv6 only**

Title: Outbound delayed offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv4, terminating phone IPv6 only

Description:

This flow shows a delayed offer call from a IPv4_IPv6 SCCP Phone to a IPv6 SCCP Phone via a Dual Mode SIP Trunk with ANAT enabled.

Eventhough ANAT is enabled, since the sdp-anat tag is received in the SUPPORTED header, CM2 will only offer IPv6 SDP from its endpoint, and the call will be setup using IPv4 signaling and IPv6 media.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1003, IPv4 = 10.8.28.104, Model = IPv4_IPv6 SCCP

Phone = A, Line = 1003, IPv6 = fd6:2:6:5c:215:63ff:fece:a9b, Model = IPv4_IPv6 SCCP

Phone = B, Line = 2002, IPv6 = fd6:2:6:5c:214:a8ff:fe9e:f38f, Model = IPv6 SCCP

SIP Trunk between Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) The common device configuration associated to the trunk has
 - IP Addressing Mode set to IPv4 & IPv6, IP Addressing Mode Signaling Preference is set to IPv4
- c) SIP Trunk has a SIP Profile associated with the "Enable ANAT" checkbox checked

Phone A is configured with a common device configuration with IP Addressing Mode set to IPv4_IPv6 so that it behaves in IPv4_IPv6 mode.

Phone B is configured with a common device configuration with IP Addressing Mode set to IPv6 so that it behaves in IPv6 only mode.

Scenario:

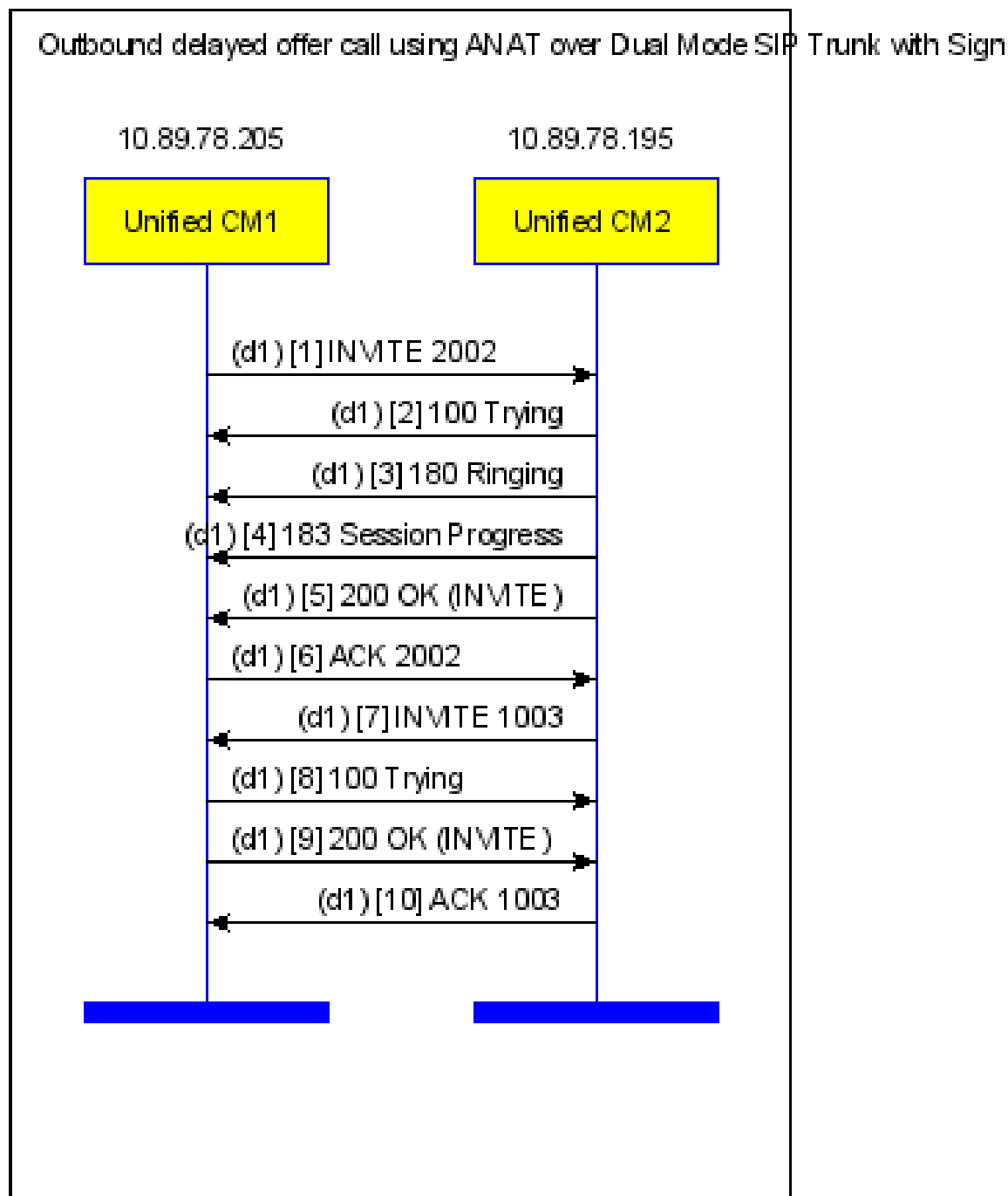
Phone A DN 1003 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

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Phone A DN 1003 goes onHook
End of Scenario

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Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKa2f250c12
 From: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 19:22:23 GMT
 Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces,sdp-anat
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2079082240-0000065536-0000000003-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKa2f250c12
 From: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
 To: <sip:2002@10.89.78.195>
 Date: Thu, 02 Dec 2010 19:22:23 GMT
 Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKa2f250c12
 From: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
 To: <sip:2002@10.89.78.195>;tag=19~e811c00a-4a66-4296-a800-0718da03b731-31438633
 Date: Thu, 02 Dec 2010 19:22:23 GMT
 Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKa2f250c12
 From: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
 To: <sip:2002@10.89.78.195>;tag=19~e811c00a-4a66-4296-a800-0718da03b731-31438633
 Date: Thu, 02 Dec 2010 19:22:23 GMT
 Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: sdp-anat
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 382

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
 s=SIP Call
 c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
 t=0 0
 m=audio 4000 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 aptime:20

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```

a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=mid:1

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKa2f250c12
From: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
To: <sip:2002@10.89.78.195>;tag=19~e811c00a-4a66-4296-a800-0718da03b731-31438633
Date: Thu, 02 Dec 2010 19:22:23 GMT
Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: sdp-anat
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:2002@10.89.78.195>
Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 382

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
s=SIP Call
c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
t=0 0
m=audio 4000 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=mid:1

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKb155fb3bc
From: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
To: <sip:2002@10.89.78.195>;tag=19~e811c00a-4a66-4296-a800-0718da03b731-31438633
Date: Thu, 02 Dec 2010 19:22:23 GMT
Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 262

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP6 2001:420:1e00:bf:221:5eff:fe69:cdb
s=SIP Call
c=IN IP6 fd6:2:6:5c:215:63ff:fece:a9b
t=0 0
m=audio 24288 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=recvnly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] INVITE sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb38c16e96

```

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From: <sip:2002@10.89.78.195>;tag=19~e811c00a-4a66-4296-a800-0718da03b731-31438633
 To: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
 Date: Thu, 02 Dec 2010 19:22:24 GMT
 Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces,sdp-anat
 Min-SE: 1800
 Cisco-Guid: 2079082240-0000065536-0000000003-3444463882
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 252

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP6 2001:420:1e00:bf:221:5eff:fe69:1627
 s=SIP Call
 c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
 t=0 0
 m=audio 22062 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb38c16e96
 From: <sip:2002@10.89.78.195>;tag=19~e811c00a-4a66-4296-a800-0718da03b731-31438633
 To: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
 Date: Thu, 02 Dec 2010 19:22:24 GMT
 Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb38c16e96
 From: <sip:2002@10.89.78.195>;tag=19~e811c00a-4a66-4296-a800-0718da03b731-31438633
 To: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
 Date: Thu, 02 Dec 2010 19:22:24 GMT
 Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: sdp-anat
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 250

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP6 2001:420:1e00:bf:221:5eff:fe69:cdb
 s=SIP Call
 c=IN IP6 fd6:2:6:5c:215:63ff:fece:a9b
 t=0 0
 m=audio 24288 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKc6b6d8549

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From: <sip:2002@10.89.78.195>;tag=19~e811c00a-4a66-4296-a800-0718da03b731-31438633
To: <sip:1003@10.89.78.205>;tag=6~1ebcd687-60ae-450a-823c-0469b2740097-31438012
Date: Thu, 02 Dec 2010 19:22:24 GMT
Call-ID: 7bec4700-cf71f1ef-3-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0

CISCO CONFIDENTIAL**24.8 Outbound early offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv4**

Title: Outbound early offer call using ANAT over Dual Mode SIP Trunk with Signaling preference set to IPv4

Description:

This flow shows a early offer call from a IPv4_IPv6 SCCP Phone to a IPv6 SCCP Phone via a Dual Mode SIP Trunk with ANAT enabled.

Since ANAT is enabled, CM1 will allocate MTP, and offer both IPv4 and IPv6 in the ANAT SDP, CM2 will pick IPv6, since the endpoint only supports IPv6, and the call will be setup using IPv4 for signaling and IPv6 for media

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1003, IP = 10.8.28.104, Model = IPv4_IPv6 SCCP

Phone = A, Line = 1003, IP = fd6:2:6:5c:215:63ff:fece:a9b, Model = IPv4_IPv6 SCCP

Phone = B, Line = 2002, IP = fd6:2:6:5c:214:a8ff:fe9e:f38f, Model = IPv6 only SCCP

SIP Trunk between Unified CM1 & Unified CM2 has

- a) route pattern 2.XXXX
- b) The common device configuration associated to the trunk has
 - IP Addressing Mode set to IPv4 & IPv6, IP Addressing Mode Signaling Preference is set to IPv4
- c) SIP Trunk has a SIP Profile associated with the "Enable ANAT" checkbox checked
- d) SIP Trunk has "Media Termination Point Required" Checkbox checked

Phone A is configured with a common device configuration with IP Addressing Mode set to IPv4_IPv6 so that it behaves in IPv4_IPv6 mode.

Phone B is configured with a common device configuration with IP Addressing Mode set to IPv6 so that it behaves in IPv6 only mode.

Configure a Dual Stack MTP that supports IPv4/IPv6 conversion on Unified CM1

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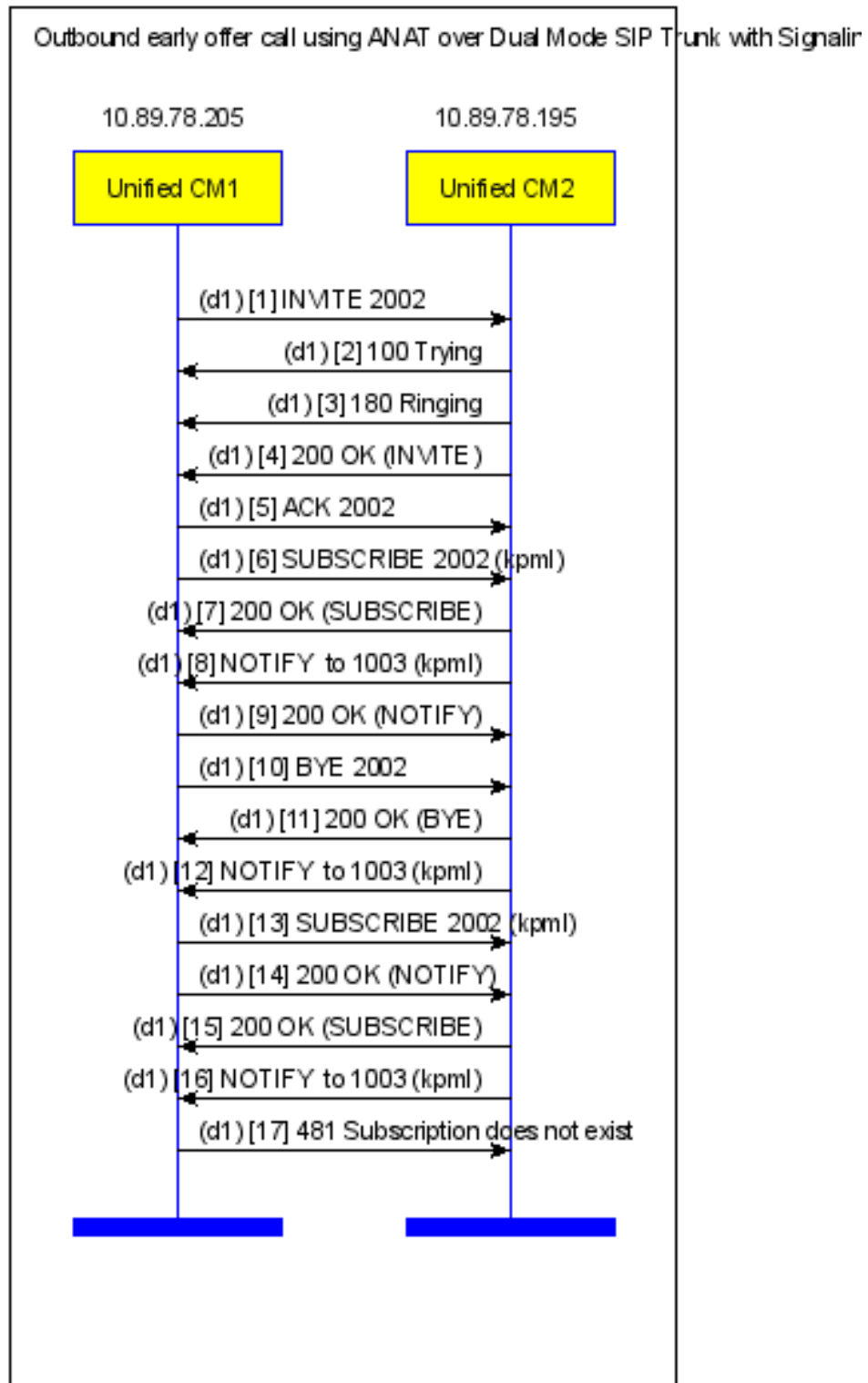
Scenario:

Phone A DN 1003 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1003 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c2f5f4d5f
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>
 Date: Fri, 03 Dec 2010 01:26:18 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Require: sdp-anat
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 1385750144-0000065536-0000000010-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Remote-Party-ID: <sip:1003@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 408

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 t=0 0
 a=group:ANAT 1 2
 m=audio 17964 RTP/AVP 0 101
 c=IN IP4 10.89.79.60
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=mid:1
 m=audio 17178 RTP/AVP 0 101
 c=IN IP6 2001:420:1e00:c6:21f:9eff:fe11:3aa0
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=mid:2

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c2f5f4d5f
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>
 Date: Fri, 03 Dec 2010 01:26:18 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c2f5f4d5f
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Date: Fri, 03 Dec 2010 01:26:18 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1c2f5f4d5f
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Date: Fri, 03 Dec 2010 01:26:18 GMT

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Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Require: sdp-anat
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 396

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 t=0 0
 a=group:ANAT 2
 m=audio 0 RTP/AVP 0 101
 c=IN IP4 10.89.79.60
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=mid:1
 m=audio 26324 RTP/AVP 0 101
 c=IN IP6 fd6:2:6:5c:214:a8ff:fe9e:f38f
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=mid:2

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1d77d551e
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Date: Fri, 03 Dec 2010 01:26:18 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1e1e6aab25
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Date: Fri, 03 Dec 2010 01:26:19 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>

</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1e1e6aab25
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905

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To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Date: Fri, 03 Dec 2010 01:26:19 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 102 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK153afc1c44
 From: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 To: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 01:26:19 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK153afc1c44
 From: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 To: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 Date: Fri, 03 Dec 2010 01:26:19 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1f132a9583
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Date: Fri, 03 Dec 2010 01:26:18 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK1f132a9583
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Date: Fri, 03 Dec 2010 01:26:29 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK16484e4d73
 From: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 To: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 01:26:29 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK201786ab44
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Date: Fri, 03 Dec 2010 01:26:29 GMT
 User-Agent: Cisco-CUCM8.5

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Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1003@10.89.78.205>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK16484e4d73
 From: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 To: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 Date: Fri, 03 Dec 2010 01:26:29 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK201786ab44
 From: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 To: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 Date: Fri, 03 Dec 2010 01:26:29 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 104 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1762bd03d7
 From: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 To: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Fri, 03 Dec 2010 01:26:29 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK1762bd03d7
 From: <sip:2002@10.89.78.195>;tag=43~e811c00a-4a66-4296-a800-0718da03b731-31523559
 To: <sip:1003@10.89.78.205>;tag=16~1ebcd687-60ae-450a-823c-0469b2740097-31523905
 Date: Fri, 03 Dec 2010 01:26:29 GMT
 Call-ID: 5298de80-cf81473a-a-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**24.9 Outbound IPv4 call to an IPv6 trunk results in a 503**

Title: Outbound IPv4 call to an IPv6 trunk results in a 503

Description:

This flow shows an IPv4 call destined to an IPv6 only SIP Trunk will result in a call failure.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.13.5.217, Model = IPv4 SCCP

Phone = B, Line = 2001, IP = 10.13.5.220, Model = IPv4 SIP TNP

SIP Trunk on Unified CM1 pointing to CM2

- a) route pattern 2.XXXX
- b) The common device configuration associated to the trunk has
IP Addressing Mode set to IPv4

SIP Trunk on Unified CM2 pointing to CM1

- a) route pattern 1.XXXX
- b) The common device configuration associated to the trunk has
IP Addressing Mode set to IPv6

Phone A, Phone B are configured with a common device configuration with
IP Addressing Mode set to IPv4 so that they behave in IPv4 only mode.

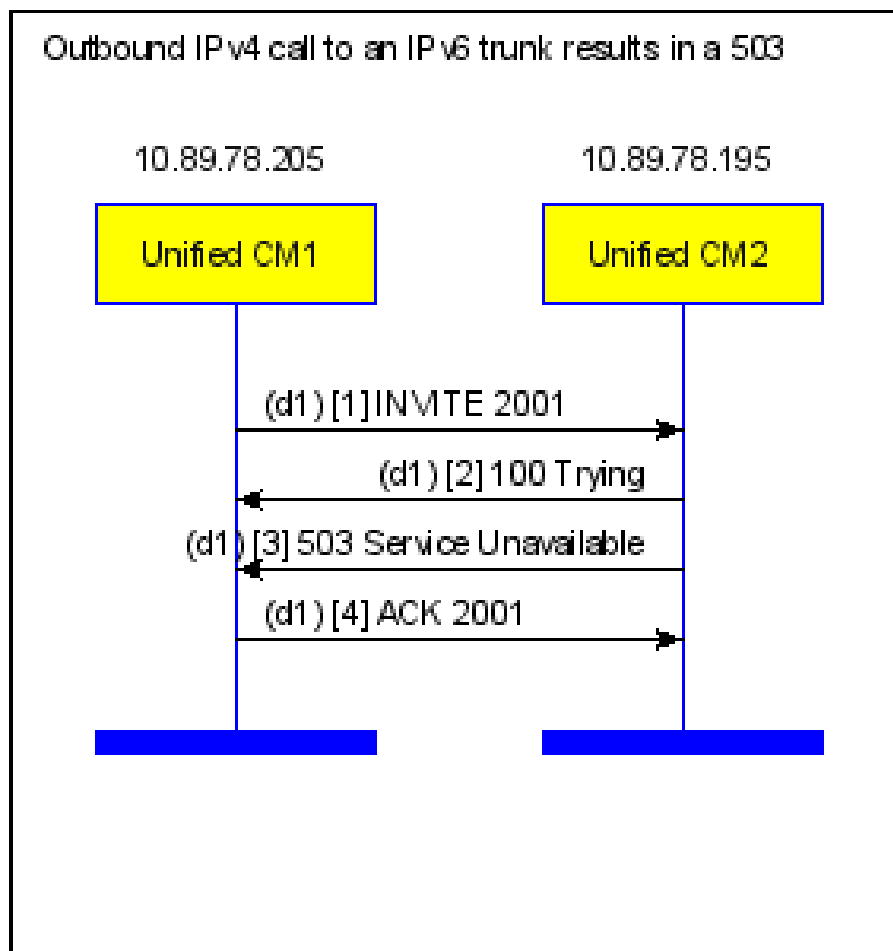
Configure a dual mode SIP Trunk on both Unified CM1 and CM2, pointing to
an another CM, so that CUCM is listening on both IPv4 and IPv6 interface

Scenario:

Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone A hears reorder tone

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKfc7a736b
 From: <sip:1001@10.89.78.205>;tag=10~1ebcd687-60ae-450a-823c-0469b2740097-31438025
 To: <sip:2001@10.89.78.195>
 Date: Thu, 02 Dec 2010 19:35:46 GMT
 Call-ID: 5a8c5a80-cf71f512-6-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1519147648-0000065536-000000006-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKfc7a736b
 From: <sip:1001@10.89.78.205>;tag=10~1ebcd687-60ae-450a-823c-0469b2740097-31438025
 To: <sip:2001@10.89.78.195>
 Date: Thu, 02 Dec 2010 19:35:46 GMT
 Call-ID: 5a8c5a80-cf71f512-6-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 503 Service Unavailable**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKfc7a736b
 From: <sip:1001@10.89.78.205>;tag=10~1ebcd687-60ae-450a-823c-0469b2740097-31438025
 To: <sip:2001@10.89.78.195>;tag=772483855
 Date: Thu, 02 Dec 2010 19:35:46 GMT
 Call-ID: 5a8c5a80-cf71f512-6-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Warning: 399 sw021b-cm2 "Unable to find a device handler for the request received on port 50194 from 10.89.78.205"
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] ACK sip:2001@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKfc7a736b
 From: <sip:1001@10.89.78.205>;tag=10~1ebcd687-60ae-450a-823c-0469b2740097-31438025
 To: <sip:2001@10.89.78.195>;tag=772483855
 Date: Thu, 02 Dec 2010 19:35:46 GMT
 Call-ID: 5a8c5a80-cf71f512-6-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

CISCO CONFIDENTIAL**24.10 Outbound IPv6 call to an IPv4 trunk results in a 503**

Title: Outbound IPv6 call to an IPv4 trunk results in a 503

Description:

This flow shows an IPv6 call destined to an IPv4 only SIP Trunk will result in a call failure.

Configuration:

Node = Unified CM1, IP = 2001:420:1e00:bf:221:5eff:fe69:cdb

Node = Unified CM2, IP = 2001:420:1e00:bf:221:5eff:fe69:1627

Phone = A, Line = 1001, IP = 10.8.28.121, Model = IPv4 SCCP

Phone = B, Line = 2001, IP = 10.8.28.120, Model = IPv4 SIP TNP

SIP Trunk on Unified CM1 pointing to CM2

- a) route pattern 2.XXXX
- b) The common device configuration associated to the trunk has
IP Addressing Mode set to IPv6

SIP Trunk on Unified CM2 pointing to CM1

- a) route pattern 1.XXXX
- b) The common device configuration associated to the trunk has
IP Addressing Mode set to IPv4

Phone A, Phone B are configured with a common device configuration with
IP Addressing Mode set to IPv4 so that they behave in IPv4 only mode.

Configure another dual mode SIP Trunk on both Unified CM1 and CM2, pointing to
an dummy CM, so that CM1/CM2 is listening on both IPv4 and IPv6 interface

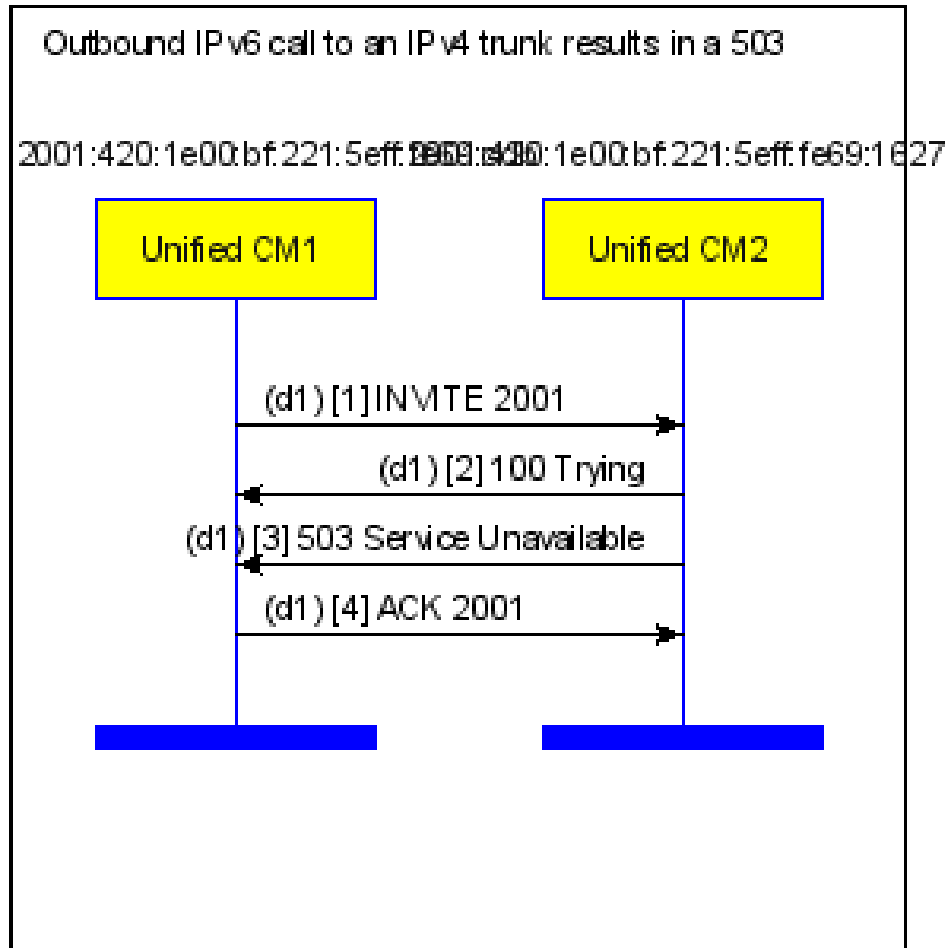
Scenario:

Phone A DN 1001 calls Phone B DN 2001 over the SIP Trunk by dialing 22001

Phone A hears reorder tone

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060 SIP/2.0**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK114ac75f7

From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=4-1ebcd687-60ae-450a-823c-0469b2740097-32848649

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>

Date: Mon, 06 Dec 2010 21:42:01 GMT

Call-ID: a740a000-cfd158a9-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 2806030336-0000065536-0000000002-3444463882

Session-Expires: 1800

P-Asserted-Identity: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>

Remote-Party-ID: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;party=calling;screen=yes;privacy=off

Contact: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;transport=tcp>

Max-Forwards: 70

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK114ac75f7

From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=4-1ebcd687-60ae-450a-823c-0469b2740097-32848649

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>

Date: Mon, 06 Dec 2010 21:42:01 GMT

Call-ID: a740a000-cfd158a9-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 503 Service Unavailable**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK114ac75f7

From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=4-1ebcd687-60ae-450a-823c-0469b2740097-32848649

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=596343449

Date: Mon, 06 Dec 2010 21:42:01 GMT

Call-ID: a740a000-cfd158a9-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

CSeq: 101 INVITE

Allow-Events: presence

Warning: 399 sw021b-cm2 "Unable to find a device handler for the request received on port 34633 from

2001:420:1e00:bf:221:5eff:fe69:cdb"

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] ACK sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]:5060 SIP/2.0**

Via: SIP/2.0/TCP [2001:420:1e00:bf:221:5eff:fe69:cdb]:5060;branch=z9hG4bK114ac75f7

From: <sip:1001@[2001:420:1e00:bf:221:5eff:fe69:cdb]>;tag=4-1ebcd687-60ae-450a-823c-0469b2740097-32848649

To: <sip:2001@[2001:420:1e00:bf:221:5eff:fe69:1627]>;tag=596343449

Date: Mon, 06 Dec 2010 21:42:01 GMT

Call-ID: a740a000-cfd158a9-2-cd4e590a@2001:420:1e00:bf:221:5eff:fe69:cdb

Max-Forwards: 70

CSeq: 101 ACK

Allow-Events: presence, kpml

Content-Length: 0

CISCO CONFIDENTIAL**25. CallingPartyTransformations****25.1 Define number of digits to be prefixed, stripped for Unknown Number Type on Service Parameter page**

Title: Define number of digits to be prefixed, stripped for Unknown Number Type on Service Parameter page

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk, and between the UAS side SIP trunk and the terminating side SIP phone.

Cisco IP PhoneB registered to Cisco Unified CM2 calls Cisco IP PhoneA which is registered to Cisco Unified CM1.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1002, IP = 10.8.28.104, Model = SIP TNP

Phone = B, Line = 2004, IP = 10.8.28.103, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has route pattern 1.XXXX

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Calling party transformation configuration steps:**1. CCM1 configuration:**

1) Service Parameter (Advanced) for Incoming Calling Party Unknown Number Prefix - SIP: +919392:2

2) Trunk Device Page - Incoming Calling Party Setting Incoming Number Prefix: default

3) Trunk Device Page - Incoming Calling Party Setting Incoming Number Strip Digits: empty

4) Default Device Pool Page - Incoming Calling Party Unknown Number Prefix: default

5) Default Device Pool Page - Incoming Calling Party Unknown Number Strip Digits: empty

2. CCM2 configuration:

Route Pattern 1.XXXX configurations:

1) Prefix Digits (Outgoing Calls): 00

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- 2) Calling Party Number Type: Unknown
- 3) Calling Party Numbering Plan: Unknown
- 4) Discard Predot

Scenario:

Phone B DN 2004 calls Phone A DN 1002 over the SIP Trunk by dialing 11002

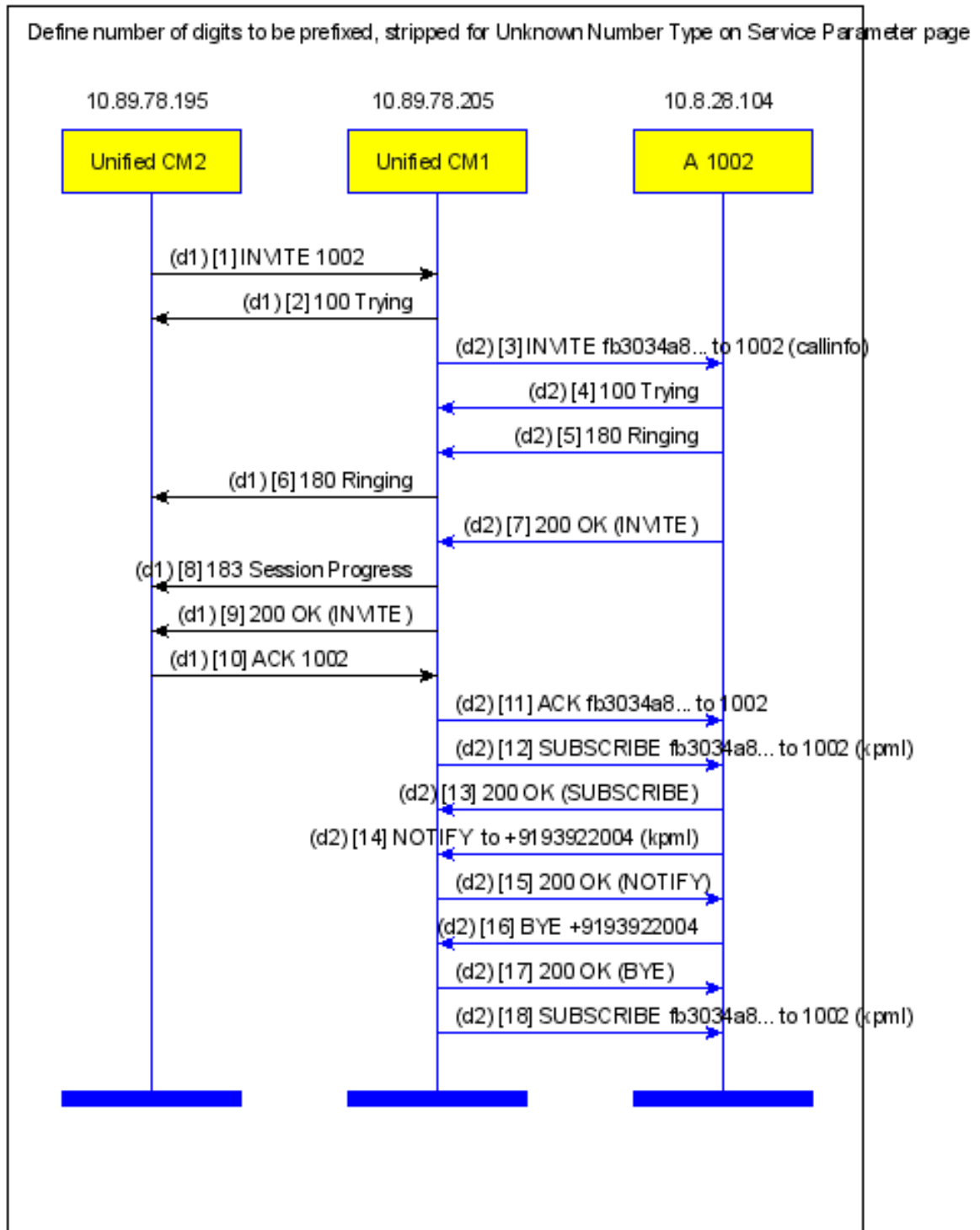
Phone A DN 1002 Answers

Duration short

Phone A DN 1002 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1002@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf119f9f78
 From: <sip:002004@10.89.78.195>;tag=2693-e811c00a-4a66-4296-a800-0718da03b731-23908562
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 16:43:20 GMT
 Call-ID: f3970980-cdd16ea8-1e-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 4086761856-00000065536-0000000010-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:002004@10.89.78.195>
 Remote-Party-ID: <sip:002004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:002004@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf119f9f78
 From: <sip:002004@10.89.78.195>;tag=2693-e811c00a-4a66-4296-a800-0718da03b731-23908562
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 16:43:20 GMT
 Call-ID: f3970980-cdd16ea8-1e-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] INVITE sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKd71afc7041
 From: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 16:43:20 GMT
 Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= from; gci= 1-5025;
 call-instance= 1
 Send-Info: conference, x-cisco-conference
 Alert-Info: <file://Bellcore-dr2/>
 Remote-Party-ID: <sip:+9193922004@10.89.78.205;x-cisco-callback-number=+9193922004>;party=calling;screen=yes;privacy=off
 Contact: <sip:+9193922004@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 69
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKd71afc7041
 From: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
 To: <sip:1002@10.89.78.205>
 Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 16:43:19 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1
 Allow-Events: kpml,dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKd71afc7041

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From: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
 Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 16:43:20 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "1002" <sip:1002@10.89.78.205>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf119f9f78
 From: <sip:002004@10.89.78.195>;tag=2693-e811c00a-4a66-4296-a800-0718da03b731-23908562
 To: <sip:1002@10.89.78.205>;tag=587-1ebcd687-60ae-450a-823c-0469b2740097-24226734
 Date: Fri, 12 Nov 2010 16:43:20 GMT
 Call-ID: f3970980-cdd16ea8-1e-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKd71afc7041
 From: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
 Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 16:43:26 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "1002" <sip:1002@10.89.78.205>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 325
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 9941 0 IN IP4 10.8.28.104
 s=SIP Call
 t=0 0
 m=audio 32408 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.8.28.104
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf119f9f78
 From: <sip:002004@10.89.78.195>;tag=2693-e811c00a-4a66-4296-a800-0718da03b731-23908562
 To: <sip:1002@10.89.78.205>;tag=587-1ebcd687-60ae-450a-823c-0469b2740097-24226734
 Date: Fri, 12 Nov 2010 16:43:20 GMT
 Call-ID: f3970980-cdd16ea8-1e-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation

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P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 32408 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf119f9f78
 From: <sip:002004@10.89.78.195>;tag=2693-e811c00a-4a66-4296-a800-0718da03b731-23908562
 To: <sip:1002@10.89.78.205>;tag=587-1ebcd687-60ae-450a-823c-0469b2740097-24226734
 Date: Fri, 12 Nov 2010 16:43:20 GMT
 Call-ID: f3970980-cdd16ea8-1e-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 32408 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] ACK sip:1002@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf276b1216c
 From: <sip:002004@10.89.78.195>;tag=2693-e811c00a-4a66-4296-a800-0718da03b731-23908562
 To: <sip:1002@10.89.78.205>;tag=587-1ebcd687-60ae-450a-823c-0469b2740097-24226734
 Date: Fri, 12 Nov 2010 16:43:20 GMT
 Call-ID: f3970980-cdd16ea8-1e-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.103

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```
t=0 0
m=audio 19960 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[11] ACK sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKd8757acbc8
From: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
Date: Fri, 12 Nov 2010 16:43:20 GMT
Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.8.28.103
t=0 0
m=audio 19960 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[12] SUBSCRIBE sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKd95b161d16
From: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Date: Fri, 12 Nov 2010 16:43:26 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.205:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[13] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKd95b161d16
From: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
Date: Fri, 12 Nov 2010 16:43:26 GMT
CSeq: 102 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[14] NOTIFY sip:10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK7c371437
To: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
Date: Fri, 12 Nov 2010 16:43:26 GMT
CSeq: 101 NOTIFY
Event: kpml
```


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Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK7c371437
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
 To: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
 Date: Fri, 12 Nov 2010 16:43:27 GMT
 Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] BYE sip:+9193922004@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bKb758d15b
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
 To: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
 Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
 Max-Forwards: 70
 Date: Fri, 12 Nov 2010 16:43:35 GMT
 CSeq: 102 BYE
 User-Agent: Cisco-CP7970G/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bKb758d15b
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
 To: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
 Date: Fri, 12 Nov 2010 16:43:36 GMT
 Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SUBSCRIBE sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdb6477ca4c
 From: <sip:+9193922004@10.89.78.205>;tag=588-1ebcd687-60ae-450a-823c-0469b2740097-24226735
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021080ac1241-854d46d4
 Call-ID: f3970980-cdd16ea8-21-cd4e590a@10.89.78.205
 CSeq: 103 SUBSCRIBE
 Date: Fri, 12 Nov 2010 16:43:36 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

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Title: Define number of digits to be prefixed, stripped for Unknown Number Type on trunk device page

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk, and between the UAS side SIP trunk and the terminating side SIP phone.

Cisco IP PhoneB registered to Cisco Unified CM2 calls Cisco IP PhoneA which is registered to Cisco Unified CM1.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1002, IP = 10.8.28.104, Model = SIP TNP

Phone = B, Line = 2004, IP = 10.8.28.103, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has route pattern 1.XXXX

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Calling party transformation configuration steps:**1. CCM1 configuration:**

1) Service Parameter (Advanced) for Incoming Calling Party Unknown Number Prefix - SIP: +919392:1

2) Trunk Device Page - Incoming Calling Party Setting Incoming Number Prefix: +919391

3) Trunk Device Page - Incoming Calling Party Setting Incoming Number Strip Digits: 2

4) Default Device Pool Page - Incoming Calling Party Unknown Number Prefix: default

5) Default Device Pool Page - Incoming Calling Party Unknown Digits to Strip: empty

2. CCM2 configuration:**Route pattern Configuration:**

1) Prefix Digits (Outgoing Calls): 00

2) Calling Party Number Type: Unknown

3) Calling Party Numbering Plan: Unknown

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4) Discard Predot

Scenario:

Phone B DN 2004 calls Phone A DN 1002 over the SIP Trunk by dialing 11002

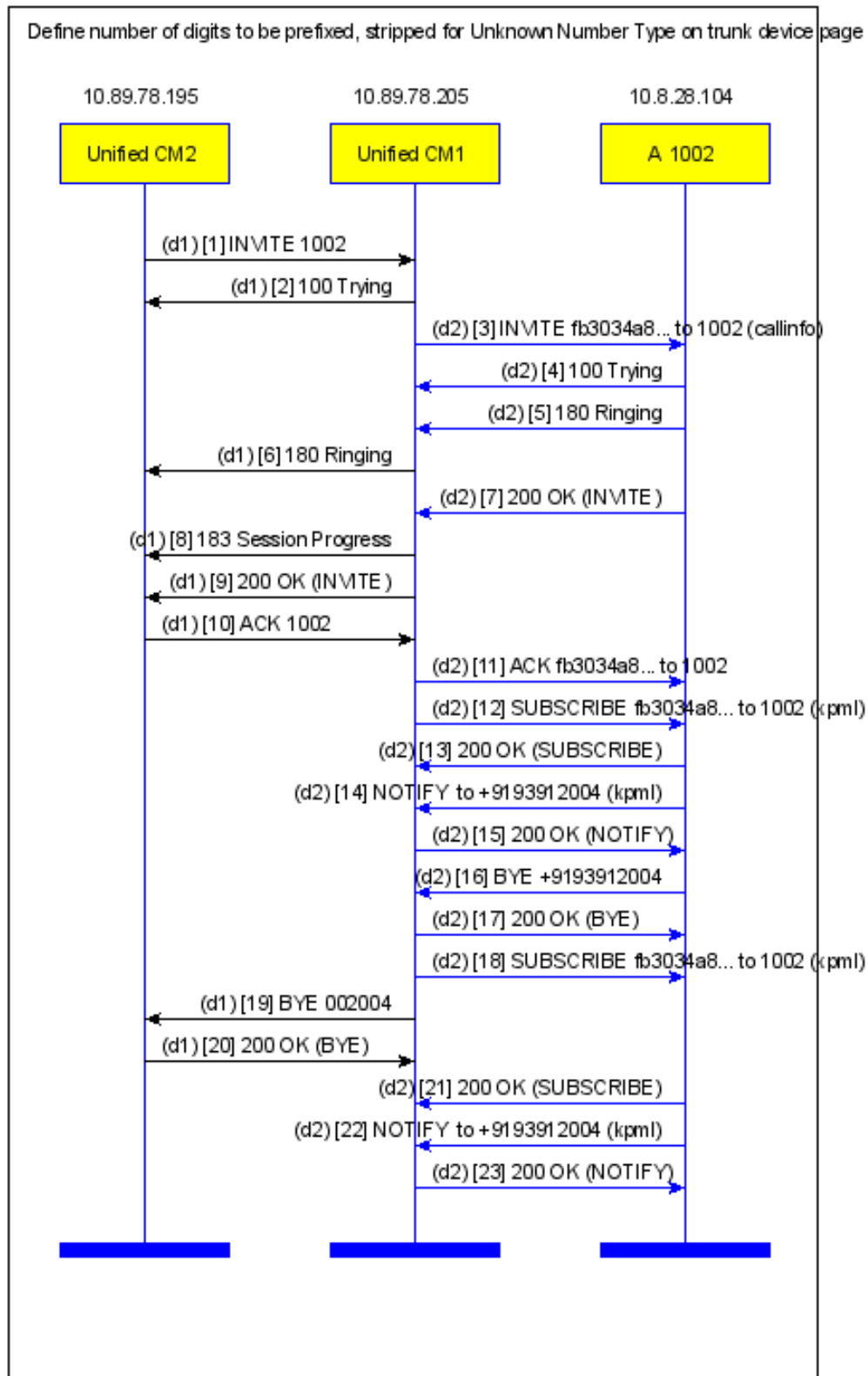
Phone A DN 1002 Answers

Duration short

Phone A DN 1002 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1002@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf3670a80a2
 From: <sip:002004@10.89.78.195>;tag=2703-e811c00a-4a66-4296-a800-0718da03b731-23908564
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 16:51:48 GMT
 Call-ID: 2261af80-cdd170a4-1f-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0576827264-0000065536-0000000011-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:002004@10.89.78.195>
 Remote-Party-ID: <sip:002004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:002004@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf3670a80a2
 From: <sip:002004@10.89.78.195>;tag=2703-e811c00a-4a66-4296-a800-0718da03b731-23908564
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 16:51:48 GMT
 Call-ID: 2261af80-cdd170a4-1f-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] INVITE sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdc3f351a71
 From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 16:51:48 GMT
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= from; gci= 1-5028;
 call-instance= 1
 Send-Info: conference, x-cisco-conference
 Alert-Info: <file://Bellcore-dr2/>
 Remote-Party-ID: <sip:+9193912004@10.89.78.205;x-cisco-callback-number=+9193912004>;party=calling;screen=yes;privacy=off
 Contact: <sip:+9193912004@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 69
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdc3f351a71
 From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 To: <sip:1002@10.89.78.205>
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 16:51:47 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1
 Allow-Events: kpml,dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdc3f351a71

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From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 16:51:48 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "1002" <sip:1002@10.89.78.205>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf3670a80a2
 From: <sip:002004@10.89.78.195>;tag=2703-e811c00a-4a66-4296-a800-0718da03b731-23908564
 To: <sip:1002@10.89.78.205>;tag=599-1ebcd687-60ae-450a-823c-0469b2740097-24226738
 Date: Fri, 12 Nov 2010 16:51:48 GMT
 Call-ID: 2261af80-cdd170a4-1f-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdc3f351a71
 From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 16:51:53 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "1002" <sip:1002@10.89.78.205>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 326
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 12475 0 IN IP4 10.8.28.104
 s=SIP Call
 t=0 0
 m=audio 25068 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.8.28.104
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf3670a80a2
 From: <sip:002004@10.89.78.195>;tag=2703-e811c00a-4a66-4296-a800-0718da03b731-23908564
 To: <sip:1002@10.89.78.205>;tag=599-1ebcd687-60ae-450a-823c-0469b2740097-24226738
 Date: Fri, 12 Nov 2010 16:51:48 GMT
 Call-ID: 2261af80-cdd170a4-1f-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation

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P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 25068 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf3670a80a2
 From: <sip:002004@10.89.78.195>;tag=2703-e811c00a-4a66-4296-a800-0718da03b731-23908564
 To: <sip:1002@10.89.78.205>;tag=599-1ebcd687-60ae-450a-823c-0469b2740097-24226738
 Date: Fri, 12 Nov 2010 16:51:48 GMT
 Call-ID: 2261af80-cdd170a4-1f-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 25068 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:1002@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf4137e130e
 From: <sip:002004@10.89.78.195>;tag=2703-e811c00a-4a66-4296-a800-0718da03b731-23908564
 To: <sip:1002@10.89.78.205>;tag=599-1ebcd687-60ae-450a-823c-0469b2740097-24226738
 Date: Fri, 12 Nov 2010 16:51:48 GMT
 Call-ID: 2261af80-cdd170a4-1f-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.103

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```
t=0 0
m=audio 21578 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[11] ACK sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdd22d063f8
From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
Date: Fri, 12 Nov 2010 16:51:48 GMT
Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.8.28.103
t=0 0
m=audio 21578 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[12] SUBSCRIBE sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdec3b11f
From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Date: Fri, 12 Nov 2010 16:51:54 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.205:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[13] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdec3b11f
From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
Date: Fri, 12 Nov 2010 16:51:54 GMT
CSeq: 102 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[14] NOTIFY sip:10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK72fd4b79
To: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
Date: Fri, 12 Nov 2010 16:51:54 GMT
CSeq: 101 NOTIFY
Event: kpml
```


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Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK72fd4b79
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
 To: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 Date: Fri, 12 Nov 2010 16:51:54 GMT
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] BYE sip:+9193912004@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bKce29829f
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
 To: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 Max-Forwards: 70
 Date: Fri, 12 Nov 2010 16:52:01 GMT
 CSeq: 102 BYE
 User-Agent: Cisco-CP7970G/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bKce29829f
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
 To: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 Date: Fri, 12 Nov 2010 16:52:01 GMT
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SUBSCRIBE sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe039028209
 From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 CSeq: 103 SUBSCRIBE
 Date: Fri, 12 Nov 2010 16:52:01 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] BYE sip:002004@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdf2d56081d
 From: <sip:1002@10.89.78.205>;tag=599-1ebcd687-60ae-450a-823c-0469b2740097-24226738
 To: <sip:002004@10.89.78.195>;tag=2703-e811c00a-4a66-4296-a800-0718da03b731-23908564
 Date: Fri, 12 Nov 2010 16:51:54 GMT
 Call-ID: 2261af80-cdd170a4-1f-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 101 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKdf2d56081d
 From: <sip:1002@10.89.78.205>;tag=599-1ebcd687-60ae-450a-823c-0469b2740097-24226738
 To: <sip:002004@10.89.78.195>;tag=2703-e811c00a-4a66-4296-a800-0718da03b731-23908564
 Date: Fri, 12 Nov 2010 16:52:01 GMT
 Call-ID: 2261af80-cdd170a4-1f-c34e590a@10.89.78.195
 CSeq: 101 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe039028209
 From: <sip:+9193912004@10.89.78.205>;tag=600-1ebcd687-60ae-450a-823c-0469b2740097-24226739
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5

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Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 16:52:01 GMT
 CSeq: 103 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffbba7c2e5@10.8.28.104:49957;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] NOTIFY sip:10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK26348dcd
 To: <sip:+9193912004@10.89.78.205>;tag=600~1ebcd687-60ae-450a-823c-0469b2740097-24226739
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 16:52:01 GMT
 CSeq: 103 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffbba7c2e5@10.8.28.104:49957;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 214
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
  suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK26348dcd
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b021ba5b65851-f801c3d5
 To: <sip:+9193912004@10.89.78.205>;tag=600~1ebcd687-60ae-450a-823c-0469b2740097-24226739
 Date: Fri, 12 Nov 2010 16:52:01 GMT
 Call-ID: 2261af80-cdd170a4-22-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**25.3 Define Calling Party Transformation CSS for Unknown Number on Trunk Device Page**

Title: Define Calling Party Transformation CSS for Unknown Number on Trunk Device Page

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk, and between the UAS side SIP trunk and the terminating side SIP phone.

Cisco IP PhoneB registered to Cisco Unified CM2 calls Cisco IP PhoneA which is registered to Cisco Unified CM1.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1002, IP = 10.8.28.104, Model = SIP TNP

Phone = B, Line = 2004, IP = 10.8.28.103, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has route pattern 1.XXXX

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Calling party transformation configuration steps:

1. CCM1 configuration:

1) Configure a CSS rtpCSS1 with partition rtp1

2) Configure a Calling Party Transformation with

Pattern = 00XXXX

Partition = rtp1

Calling Party Transformation Mask - 47XX

Prefix Digits +919392

3) Trunk Device Page - Incoming Calling Party Settings Incoming Number CSS: rtpCSS1

4) Service Parameter (Advanced) for Incoming Calling Party Unknown Number Prefix - SIP: empty

5) Trunk Device Page - Incoming Calling Party Settings Incoming Number Prefix: default

6) Trunk Device Page - Incoming Calling Party Settings Incoming Number Strip Digits: empty

7) Default Device Pool Page - Incoming Calling Party Unknown Number Prefix: default

8) Default Device Pool Page - Incoming Calling Party Unknown Digits to Strip: empty

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2. CCM2 configuration:

- 1) Prefix Digits (Outgoing Calls): 00
- 2) Calling Party Number Type: Unknown
- 3) Calling Party Numbering Plan: Unknown
- 4) Discard Predot

Scenario:

Phone B DN 2002 calls Phone A DN 1002 over the SIP Trunk by dialing 11002

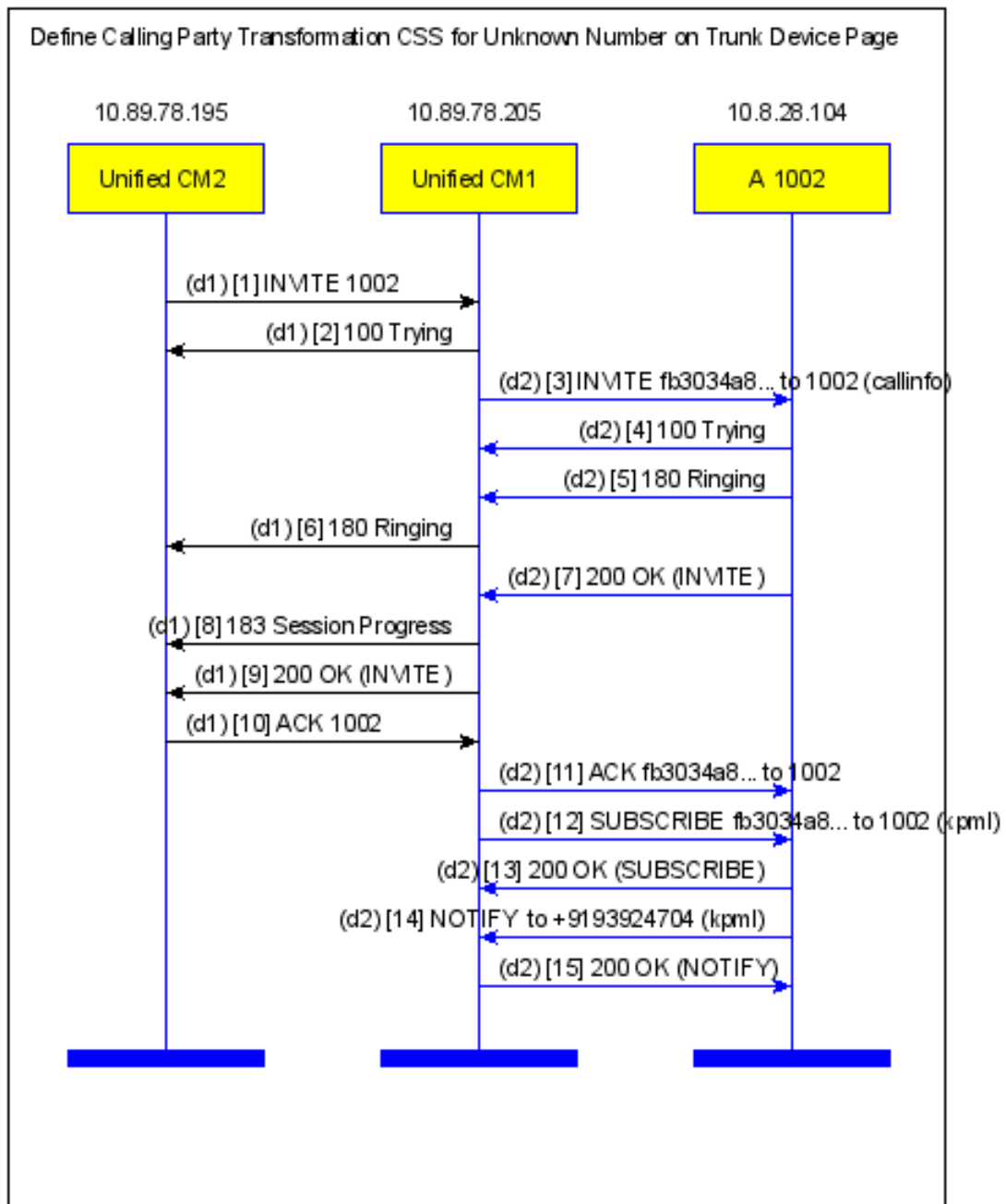
Phone A DN 1002 Answers

Duration short

Phone A DN 1002 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1002@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf5529ba5cb
 From: <sip:002004@10.89.78.195>;tag=2720-e811c00a-4a66-4296-a800-0718da03b731-23908566
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 Call-ID: 14ad2980-cdd173e8-20-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0346892672-00000065536-0000000012-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:002004@10.89.78.195>
 Remote-Party-ID: <sip:002004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:002004@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf5529ba5cb
 From: <sip:002004@10.89.78.195>;tag=2720-e811c00a-4a66-4296-a800-0718da03b731-23908566
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 Call-ID: 14ad2980-cdd173e8-20-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] INVITE sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe15358e1e1
 From: <sip:+9193924704@10.89.78.205>;tag=612-1ebcd687-60ae-450a-823c-0469b2740097-24226741
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= from; gci= 1-5029;
 call-instance= 1
 Send-Info: conference, x-cisco-conference
 Alert-Info: <file://Bellcore-dr2/>
 Remote-Party-ID: <sip:+9193924704@10.89.78.205;x-cisco-callback-number=+9193924704>;party=calling;screen=yes;privacy=off
 Contact: <sip:+9193924704@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 69
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe15358e1e1
 From: <sip:+9193924704@10.89.78.205>;tag=612-1ebcd687-60ae-450a-823c-0469b2740097-24226741
 To: <sip:1002@10.89.78.205>
 Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe15358e1e1

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From: <sip:+9193924704@10.89.78.205>;tag=612~1ebcd687-60ae-450a-823c-0469b2740097-24226741
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b022440ac7256-18eebdcc
 Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "1002" <sip:1002@10.89.78.205>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf5529ba5cb
 From: <sip:002004@10.89.78.195>;tag=2720~e811c00a-4a66-4296-a800-0718da03b731-23908566
 To: <sip:1002@10.89.78.205>;tag=611~1ebcd687-60ae-450a-823c-0469b2740097-24226740
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 Call-ID: 14ad2980-cdd173e8-20-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe15358e1e1
 From: <sip:+9193924704@10.89.78.205>;tag=612~1ebcd687-60ae-450a-823c-0469b2740097-24226741
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b022440ac7256-18eebdcc
 Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 17:05:50 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "1002" <sip:1002@10.89.78.205>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 325
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 1900 0 IN IP4 10.8.28.104
 s=SIP Call
 t=0 0
 m=audio 18008 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.8.28.104
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf5529ba5cb
 From: <sip:002004@10.89.78.195>;tag=2720~e811c00a-4a66-4296-a800-0718da03b731-23908566
 To: <sip:1002@10.89.78.205>;tag=611~1ebcd687-60ae-450a-823c-0469b2740097-24226740
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 Call-ID: 14ad2980-cdd173e8-20-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation

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P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 18008 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf5529ba5cb
 From: <sip:002004@10.89.78.195>;tag=2720-e811c00a-4a66-4296-a800-0718da03b731-23908566
 To: <sip:1002@10.89.78.205>;tag=611-1ebcd687-60ae-450a-823c-0469b2740097-24226740
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 Call-ID: 14ad2980-cdd173e8-20-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 18008 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] ACK sip:1002@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKf662751f6f
 From: <sip:002004@10.89.78.195>;tag=2720-e811c00a-4a66-4296-a800-0718da03b731-23908566
 To: <sip:1002@10.89.78.205>;tag=611-1ebcd687-60ae-450a-823c-0469b2740097-24226740
 Date: Fri, 12 Nov 2010 17:05:44 GMT
 Call-ID: 14ad2980-cdd173e8-20-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.103

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```
t=0 0
m=audio 23292 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[11] ACK sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe22ded1b98
From: <sip:+9193924704@10.89.78.205>;tag=612-1ebcd687-60ae-450a-823c-0469b2740097-24226741
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b022440ac7256-18eebdcc
Date: Fri, 12 Nov 2010 17:05:44 GMT
Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.8.28.103
t=0 0
m=audio 23292 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[12] SUBSCRIBE sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe32fc88189
From: <sip:+9193924704@10.89.78.205>;tag=612-1ebcd687-60ae-450a-823c-0469b2740097-24226741
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b022440ac7256-18eebdcc
Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Date: Fri, 12 Nov 2010 17:05:51 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.205:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[13] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKe32fc88189
From: <sip:+9193924704@10.89.78.205>;tag=612-1ebcd687-60ae-450a-823c-0469b2740097-24226741
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b022440ac7256-18eebdcc
Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
Date: Fri, 12 Nov 2010 17:05:50 GMT
CSeq: 102 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[14] NOTIFY sip:10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK82a2167e
To: <sip:+9193924704@10.89.78.205>;tag=612-1ebcd687-60ae-450a-823c-0469b2740097-24226741
From: <sip:1002@10.89.78.205>;tag=001563ce0a9b022440ac7256-18eebdcc
Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
Date: Fri, 12 Nov 2010 17:05:50 GMT
CSeq: 101 NOTIFY
Event: kpml
```

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Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK82a2167e
From: <sip:1002@10.89.78.205>;tag=001563ce0a9b022440ac7256-18eebdcc
To: <sip:+9193924704@10.89.78.205>;tag=612~1ebcd687-60ae-450a-823c-0469b2740097-24226741
Date: Fri, 12 Nov 2010 17:05:51 GMT
Call-ID: 14ad2980-cdd173e8-23-cd4e590a@10.89.78.205
CSeq: 101 NOTIFY
Content-Length: 0

CISCO CONFIDENTIAL**25.4 Define both Stripping/Prefixing and Calling Party Transformation CSS for Unknown Number on Device Pool Page**

Title: Define both Stripping/Prefixing and Calling Party Transformation CSS for Unknown Number on Device Pool Page

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk, and between the UAS side SIP trunk and the terminating side SIP phone.

Cisco IP PhoneB registered to Cisco Unified CM2 calls Cisco IP PhoneA which is registered to Cisco Unified CM1.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1002, IP = 10.8.28.104, Model = SIP TNP

Phone = B, Line = 2004, IP = 10.8.28.103, Model = SCCP

SIP Trunk between Unified CM2 & Unified CM1 has route pattern 1.XXXX

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 2.XXXX

Calling party transformation configuration steps:

1. CCM1 configuration:

1) Configure a CSS rtpCSS1 with partition rtp1

2) Configure a Calling Party Transformation Pattern with

Pattern = \+91!

Partition = rtp1

Calling Party Transformation Mask - 47XX

Prefix Digits +408804

3) Trunk Device Page - Incoming Calling Party Settings Incoming Number CSS: None

Check the "Use Device Pool CSS" checkbox

4) Default Device Pool Page - Incoming Calling Party Settings Unknown Number CSS: rtpCSS1

5) Service Parameter (Advanced) for Incoming Calling Party Unknown Number Prefix - SIP: empty

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- 6) Trunk Device Page - Incoming Calling Party Settings Incoming Number Prefix: +919392
- 7) Trunk Device Page - Incoming Calling Party Settings Incoming Number Strip Digits: 2
- 8) Default Device Pool Page - Incoming Calling Party Unknown Number Prefix: default
- 9) Default Device Pool Page - Incoming Calling Party Unknown Digits to Strip: empty

2. CCM2 configuration:

- 1) Prefix Digits (Outgoing Calls): 00
- 2) Calling Party Number Type: Unknown
- 3) Calling Party Numbering Plan: Unknown
- 4) Discard Predot

Scenario:

Phone B DN 2004 calls Phone A DN 1002 over the SIP Trunk by dialing 11002

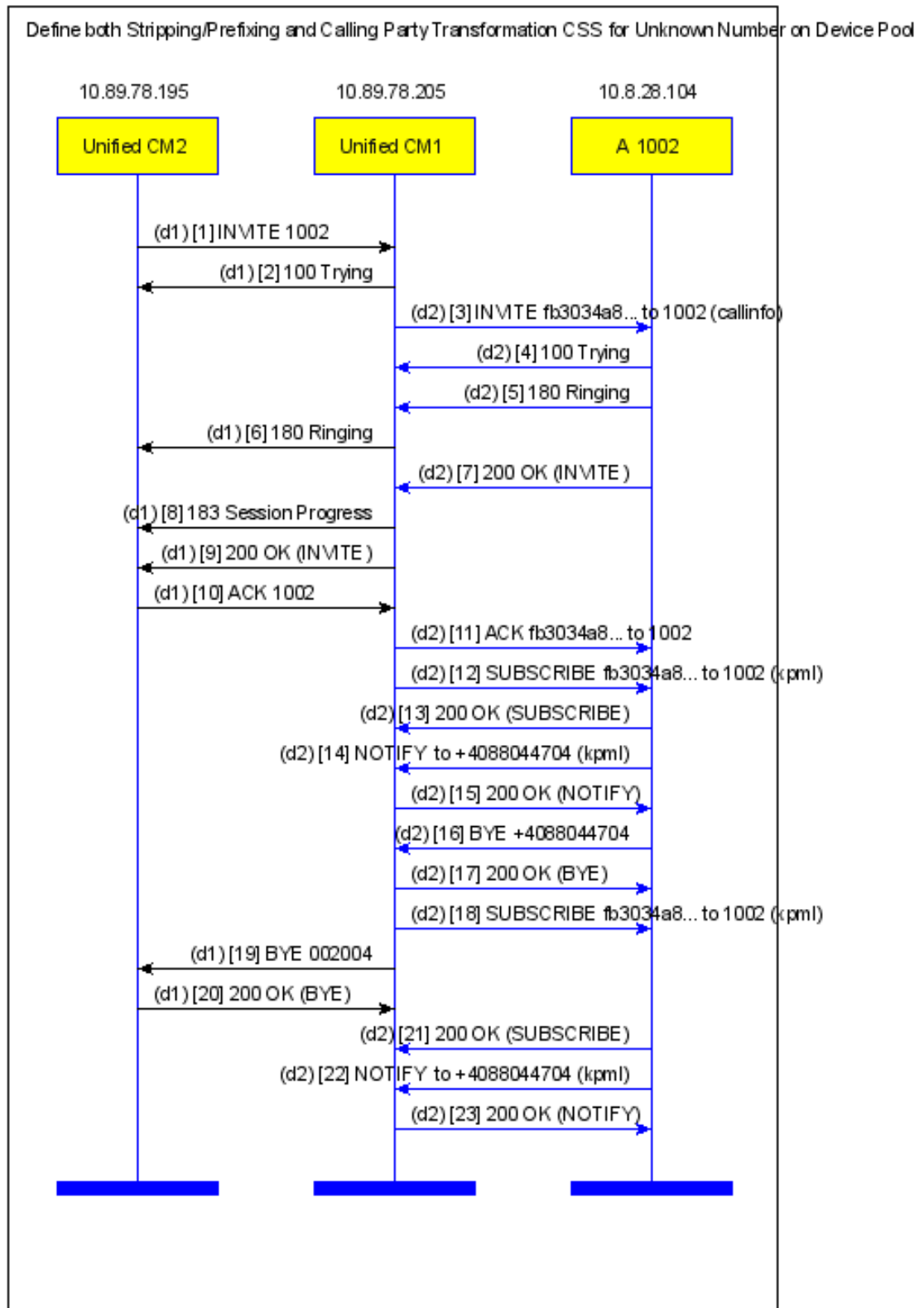
Phone A DN 1002 Answers

Duration short

Phone A DN 1002 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1002@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKfc6b406aed
 From: <sip:002004@10.89.78.195>;tag=2743-e811c00a-4a66-4296-a800-0718da03b731-23908574
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 Call-ID: 6f478500-cdd177db-24-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1866958080-0000065536-0000000016-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:002004@10.89.78.195>
 Remote-Party-ID: <sip:002004@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:002004@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKfc6b406aed
 From: <sip:002004@10.89.78.195>;tag=2743-e811c00a-4a66-4296-a800-0718da03b731-23908574
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 Call-ID: 6f478500-cdd177db-24-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] INVITE sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKed5ad321bf
 From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 To: <sip:1002@10.89.78.205>
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= from; gci= 1-5033;
 call-instance= 1
 Send-Info: conference, x-cisco-conference
 Alert-Info: <file://Bellcore-dr2/>
 Remote-Party-ID: <sip:+4088044704@10.89.78.205;x-cisco-callback-number=+4088044704>;party=calling;screen=yes;privacy=off
 Contact: <sip:+4088044704@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 69
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKed5ad321bf
 From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 To: <sip:1002@10.89.78.205>
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1
 Allow-Events: kpml,dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKed5ad321bf

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From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "1002" <sip:1002@10.89.78.205>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKfc6b406aed
 From: <sip:002004@10.89.78.195>;tag=2743-e811c00a-4a66-4296-a800-0718da03b731-23908574
 To: <sip:1002@10.89.78.205>;tag=631-1ebcd687-60ae-450a-823c-0469b2740097-24226748
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 Call-ID: 6f478500-cdd177db-24-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKed5ad321bf
 From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 17:22:40 GMT
 CSeq: 101 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=tcp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "1002" <sip:1002@10.89.78.205>;party=called;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 325
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 8519 0 IN IP4 10.8.28.104
 s=SIP Call
 t=0 0
 m=audio 30486 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.8.28.104
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKfc6b406aed
 From: <sip:002004@10.89.78.195>;tag=2743-e811c00a-4a66-4296-a800-0718da03b731-23908574
 To: <sip:1002@10.89.78.205>;tag=631-1ebcd687-60ae-450a-823c-0469b2740097-24226748
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 Call-ID: 6f478500-cdd177db-24-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation

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P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 30486 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKfc6b406aed
 From: <sip:002004@10.89.78.195>;tag=2743-e811c00a-4a66-4296-a800-0718da03b731-23908574
 To: <sip:1002@10.89.78.205>;tag=631-1ebcd687-60ae-450a-823c-0469b2740097-24226748
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 Call-ID: 6f478500-cdd177db-24-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1002@10.89.78.205>
 Remote-Party-ID: <sip:1002@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1002@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 342

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.8.28.104
 t=0 0
 m=audio 30486 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:1002@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKfd3a9b4001
 From: <sip:002004@10.89.78.195>;tag=2743-e811c00a-4a66-4296-a800-0718da03b731-23908574
 To: <sip:1002@10.89.78.205>;tag=631-1ebcd687-60ae-450a-823c-0469b2740097-24226748
 Date: Fri, 12 Nov 2010 17:22:35 GMT
 Call-ID: 6f478500-cdd177db-24-c34e590a@10.89.78.195
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.103

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```
t=0 0
m=audio 25974 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[11] ACK sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKee2f4b9c41
From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
Date: Fri, 12 Nov 2010 17:22:35 GMT
Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 211
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.8.28.103
t=0 0
m=audio 25974 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[12] SUBSCRIBE sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKef5b3e2058
From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
CSeq: 102 SUBSCRIBE
Date: Fri, 12 Nov 2010 17:22:40 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.205:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[13] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKef5b3e2058
From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
To: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
Date: Fri, 12 Nov 2010 17:22:40 GMT
CSeq: 102 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffb7a7c2e5@10.8.28.104:49957;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[14] NOTIFY sip:10.89.78.205:5060 SIP/2.0
Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK1f580bac
To: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
From: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
Date: Fri, 12 Nov 2010 17:22:40 GMT
CSeq: 101 NOTIFY
Event: kpml
```

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Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK1f580bac
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
 To: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 Date: Fri, 12 Nov 2010 17:22:41 GMT
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] BYE sip:+4088044704@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK9a69d932
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
 To: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 Max-Forwards: 70
 Date: Fri, 12 Nov 2010 17:22:45 GMT
 CSeq: 102 BYE
 User-Agent: Cisco-CP7970G/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bK9a69d932
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
 To: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 Date: Fri, 12 Nov 2010 17:22:46 GMT
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SUBSCRIBE sip:fb3034a8-5b72-41df-a8c7-9c7ffba7c2e5@10.8.28.104:49957;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf162963322
 From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 CSeq: 103 SUBSCRIBE
 Date: Fri, 12 Nov 2010 17:22:46 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] BYE sip:002004@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf06c537445
 From: <sip:1002@10.89.78.205>;tag=631-1ebcd687-60ae-450a-823c-0469b2740097-24226748
 To: <sip:002004@10.89.78.195>;tag=2743-e811c00a-4a66-4296-a800-0718da03b731-23908574
 Date: Fri, 12 Nov 2010 17:22:40 GMT
 Call-ID: 6f478500-cdd177db-24-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 101 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf06c537445
 From: <sip:1002@10.89.78.205>;tag=631-1ebcd687-60ae-450a-823c-0469b2740097-24226748
 To: <sip:002004@10.89.78.195>;tag=2743-e811c00a-4a66-4296-a800-0718da03b731-23908574
 Date: Fri, 12 Nov 2010 17:22:46 GMT
 Call-ID: 6f478500-cdd177db-24-c34e590a@10.89.78.195
 CSeq: 101 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bKf162963322
 From: <sip:+4088044704@10.89.78.205>;tag=632-1ebcd687-60ae-450a-823c-0469b2740097-24226749
 To: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00

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Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 17:22:45 GMT
 CSeq: 103 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffbba7c2e5@10.8.28.104:49957;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] NOTIFY sip:10.89.78.205:5060 SIP/2.0

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bKe890afc4
 To: <sip:+4088044704@10.89.78.205>;tag=632~1ebcd687-60ae-450a-823c-0469b2740097-24226749
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 Date: Fri, 12 Nov 2010 17:22:45 GMT
 CSeq: 103 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb3034a8-5b72-41df-a8c7-9c7ffbba7c2e5@10.8.28.104:49957;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 214
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
  suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.8.28.104:49957;branch=z9hG4bKe890afc4
 From: <sip:1002@10.89.78.205>;tag=001563ce0a9b0232548793a3-904d2a00
 To: <sip:+4088044704@10.89.78.205>;tag=632~1ebcd687-60ae-450a-823c-0469b2740097-24226749
 Date: Fri, 12 Nov 2010 17:22:46 GMT
 Call-ID: 6f478500-cdd177db-27-cd4e590a@10.89.78.205
 CSeq: 103 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**26. MLPP Q735****26.1 MLPP Q735 Namespace Call**

Title: MLPP Q735 Namespace Call

Description:

The following basic call flow illustrates the SIP messaging when the MLPP feature is enabled on SIP trunk with the Q735 namespace.

Cisco Unified CM1 is configured to have resource priority namespace network domain (Q735) and resource priority namespace lists with prioritized order for validating inbound SIP trunk messages. SIP Trunk profile is associated with namespace list and namespace network domains are added to any MLPP translations or route patterns, used for outbound SIP trunk calls.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.89.78.205

Node = Unified CM2, IP = 10.89.78.195

Phone = A, Line = 1001, Model = SCCP on CM1

Phone = B, Line = 2002, Model = SCCP on CM2

Scenario:

Phone A DN 1001 makes a FlashOverride MLPP call to Phone B DN 2002 over the SIP Trunk
Phone B DN 2002 rings with Precedence Ringer and shows Precedence level bubbles on CallerID

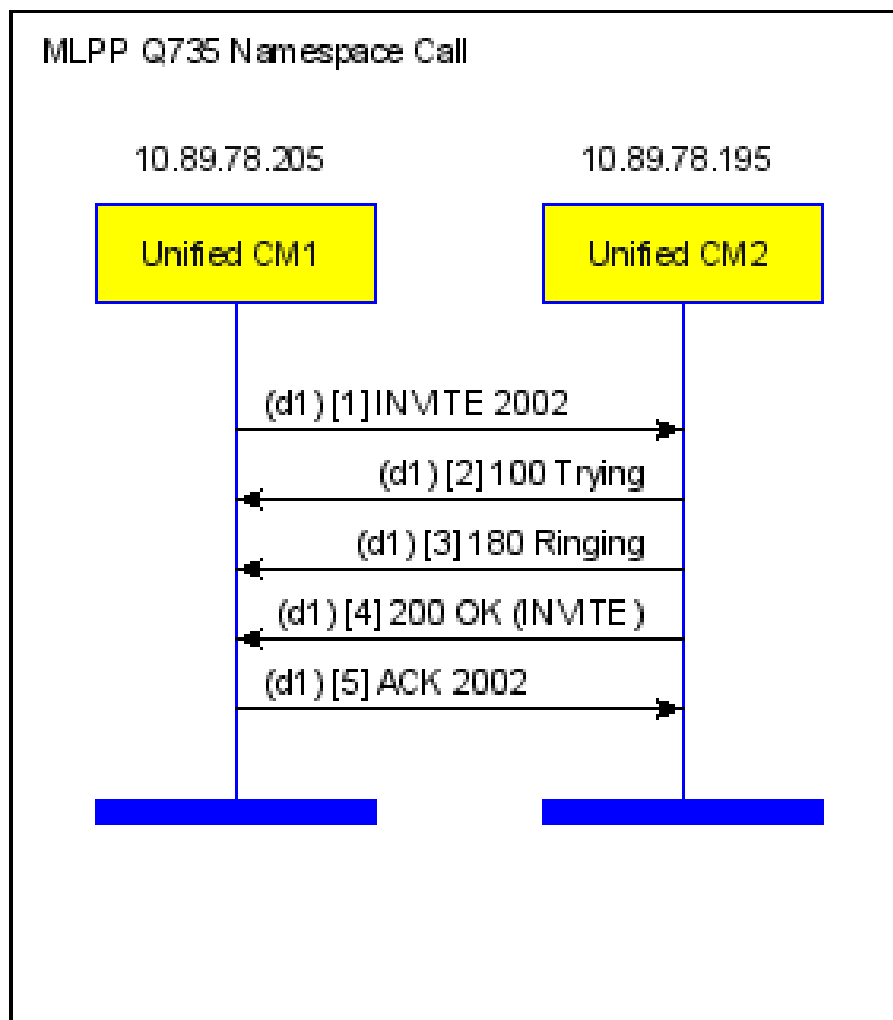
Phone A DN 1001 gets Precedence Ringback

Phone B DN 2002 answers

Both talk for 5 seconds

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5362d71c87
 From: <sip:1001@10.89.78.205>;tag=80~1ebcd687-60ae-450a-823c-0469b2740097-23904201
 To: <sip:2002@10.89.78.195>
 Date: Thu, 11 Nov 2010 20:26:26 GMT
 Call-ID: f3daca80-cdc15172-42-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.205:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Require: resource-priority
 Resource-Priority: q735.0
 Cisco-Guid: 4091202176-0000000066-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5362d71c87
 From: <sip:1001@10.89.78.205>;tag=80~1ebcd687-60ae-450a-823c-0469b2740097-23904201
 To: <sip:2002@10.89.78.195>
 Date: Thu, 11 Nov 2010 20:26:26 GMT
 Call-ID: f3daca80-cdc15172-42-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5362d71c87
 From: <sip:1001@10.89.78.205>;tag=80~1ebcd687-60ae-450a-823c-0469b2740097-23904201
 To: <sip:2002@10.89.78.195>;tag=1359~e811c00a-4a66-4296-a800-0718da03b731-23908503
 Date: Thu, 11 Nov 2010 20:26:26 GMT
 Call-ID: f3daca80-cdc15172-42-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK5362d71c87
 From: <sip:1001@10.89.78.205>;tag=80~1ebcd687-60ae-450a-823c-0469b2740097-23904201
 To: <sip:2002@10.89.78.195>;tag=1359~e811c00a-4a66-4296-a800-0718da03b731-23908503
 Date: Thu, 11 Nov 2010 20:26:26 GMT
 Call-ID: f3daca80-cdc15172-42-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 321

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.13.5.219

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```

t=0 0
m=audio 17300 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK54cb1f42e

From: <sip:1001@10.89.78.205>;tag=80~1ebcd687-60ae-450a-823c-0469b2740097-23904201

To: <sip:2002@10.89.78.195>;tag=1359~e811c00a-4a66-4296-a800-0718da03b731-23908503

Date: Thu, 11 Nov 2010 20:26:26 GMT

Call-ID: f3daca80-cdc15172-42-cd4e590a@10.89.78.205

Max-Forwards: 70

CSeq: 101 ACK

Allow-Events: presence, kpml

Content-Type: application/sdp

Content-Length: 211

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
s=SIP Call
c=IN IP4 10.13.5.217
t=0 0
m=audio 30714 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

CISCO CONFIDENTIAL**27. ConnectedPartyTransformations****27.1 Connected Party number transformation**

Title: Connected Party number transformation

Description:

The Connected Party Transformation is to provide the capability to communicate transformed number in identify headers of 180 Ringing, 200OK and mid-call UPDATE/reINVITE messages, this would allow the calling endpoint in other cluster, Voice GW or 3rd Party IPPBX to be able to display the alerting or connected number in the format DID or E164 number.

Configuration:

Node = Unified CM2, IP = 10.89.78.195

Node = Unified CM1, IP = 10.89.78.195

Phone = A, Line 2015, IP=10.8.28.253

Phone = B, Line 1003, IP=10.8.28.104

The Connected Party Settings on CM1:

- create a CSS cssCTNumTransformation containing the partition CTNumPT
- create a Calling Party Transformation Pattern 1XXX under the partition CTNumPT with Calling Party Transformation Mask +971555XXXX
- On the SIP trunk configuration, choose cssCTNumTransformation as Connected Party

Transformation CSS

and uncheck Use Device Pool Connected Party transformation CSS

P-Asserted-Identity and Remote-Party-ID carry the connected transformation via 180 Ringing and 200 OK Messages.

Scenario:

Phone A call Phone B over SIP ICT Trunk by dialing 11003

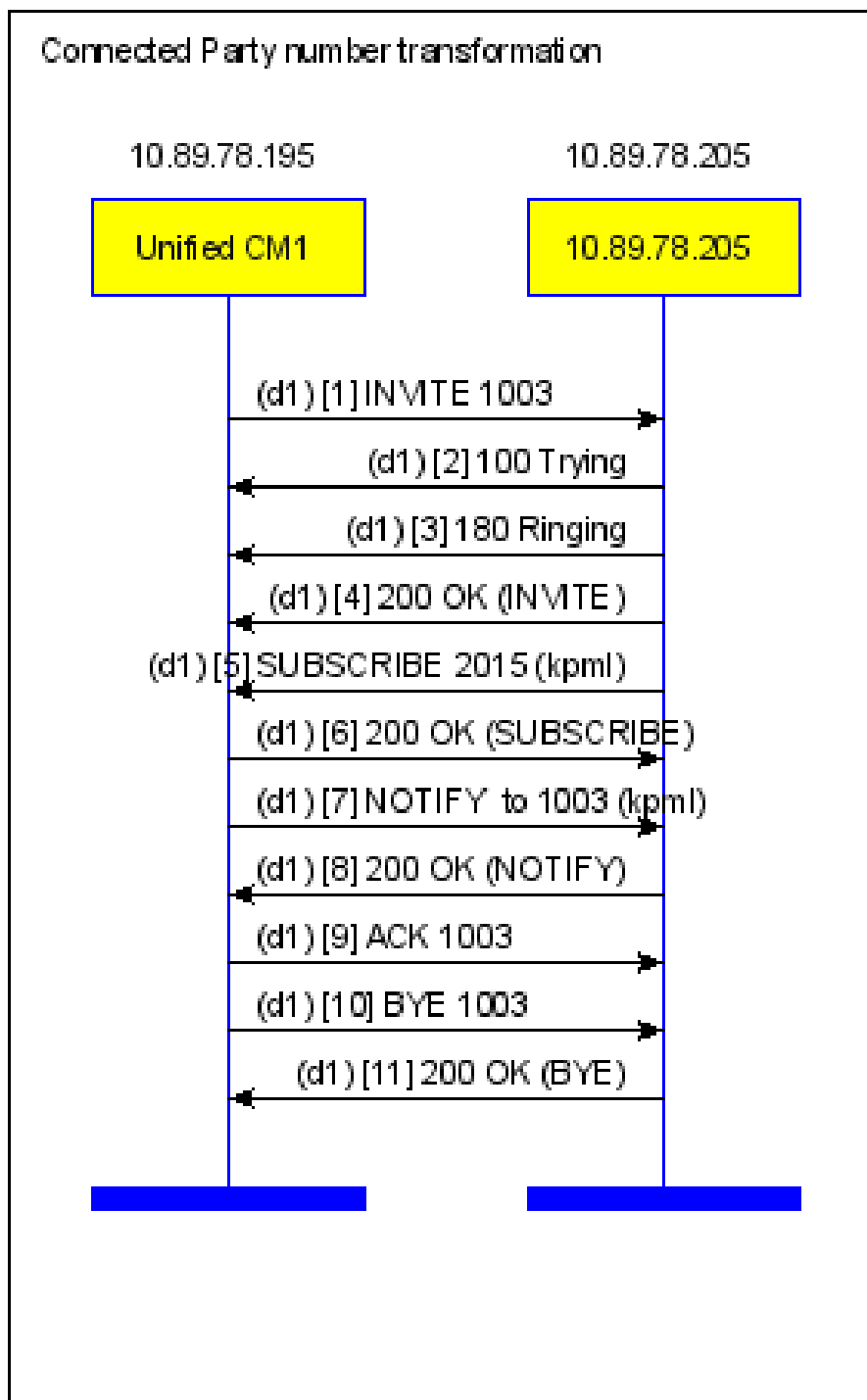
Phone B is alerting

Phone B answers the call

Phone A onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1003@10.89.78.205:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb025e6f228
 From: <sip:2015@10.89.78.195>;tag=5381-e811c00a-4a66-4296-a800-0718da03b731-19486329
 To: <sip:1003@10.89.78.205>
 Date: Tue, 21 Dec 2010 21:18:43 GMT
 Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.89.78.195:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3794600192-0000065536-0000000052-3276691722
 Session-Expires: 1800
 P-Asserted-Identity: <sip:2015@10.89.78.195>
 Remote-Party-ID: <sip:2015@10.89.78.195>;party=calling;screen=yes;privacy=off
 Contact: <sip:2015@10.89.78.195:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb025e6f228
 From: <sip:2015@10.89.78.195>;tag=5381-e811c00a-4a66-4296-a800-0718da03b731-19486329
 To: <sip:1003@10.89.78.205>
 Date: Tue, 21 Dec 2010 21:18:43 GMT
 Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb025e6f228
 From: <sip:2015@10.89.78.195>;tag=5381-e811c00a-4a66-4296-a800-0718da03b731-19486329
 To: <sip:1003@10.89.78.205>;tag=2263-1ebcd687-60ae-450a-823c-0469b2740097-32848821
 Date: Tue, 21 Dec 2010 21:18:43 GMT
 Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:+9715551003@10.89.78.205>
 Remote-Party-ID: <sip:+9715551003@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb025e6f228
 From: <sip:2015@10.89.78.195>;tag=5381-e811c00a-4a66-4296-a800-0718da03b731-19486329
 To: <sip:1003@10.89.78.205>;tag=2263-1ebcd687-60ae-450a-823c-0469b2740097-32848821
 Date: Tue, 21 Dec 2010 21:18:43 GMT
 Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:+9715551003@10.89.78.205>
 Remote-Party-ID: <sip:+9715551003@10.89.78.205>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.89.78.205:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 248

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 24722 RTP/AVP 0 8 101

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```
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SUBSCRIBE sip:2015@10.89.78.195:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8977c368ba
From: <sip:1003@10.89.78.205>;tag=2263~1ebcd687-60ae-450a-823c-0469b2740097-32848821
To: <sip:2015@10.89.78.195>;tag=5381~e811c00a-4a66-4296-a800-0718da03b731-19486329
Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
CSeq: 101 SUBSCRIBE
Date: Tue, 21 Dec 2010 21:18:49 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.205:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK8977c368ba
From: <sip:1003@10.89.78.205>;tag=2263~1ebcd687-60ae-450a-823c-0469b2740097-32848821
To: <sip:2015@10.89.78.195>;tag=5381~e811c00a-4a66-4296-a800-0718da03b731-19486329
Date: Tue, 21 Dec 2010 21:18:49 GMT
Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
CSeq: 101 SUBSCRIBE
Contact: <sip:2015@10.89.78.195:5060;transport=tcp>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb1ee8aeb9
From: <sip:2015@10.89.78.195>;tag=5381~e811c00a-4a66-4296-a800-0718da03b731-19486329
To: <sip:1003@10.89.78.205>;tag=2263~1ebcd687-60ae-450a-823c-0469b2740097-32848821
Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
CSeq: 102 NOTIFY
Max-Forwards: 70
Date: Tue, 21 Dec 2010 21:18:49 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:2015@10.89.78.195:5060;transport=tcp>
P-Asserted-Identity: <sip:2015@10.89.78.195>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb1ee8aeb9
From: <sip:2015@10.89.78.195>;tag=5381~e811c00a-4a66-4296-a800-0718da03b731-19486329
To: <sip:1003@10.89.78.205>;tag=2263~1ebcd687-60ae-450a-823c-0469b2740097-32848821
Date: Tue, 21 Dec 2010 21:18:49 GMT
Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
CSeq: 102 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] ACK sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb22669c0c9
From: <sip:2015@10.89.78.195>;tag=5381~e811c00a-4a66-4296-a800-0718da03b731-19486329
To: <sip:1003@10.89.78.205>;tag=2263~1ebcd687-60ae-450a-823c-0469b2740097-32848821
Date: Tue, 21 Dec 2010 21:18:43 GMT
Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
Max-Forwards: 70
```

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CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call
 c=IN IP4 10.8.28.253
 t=0 0
 m=audio 29638 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] BYE sip:1003@10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb34bbd3ee
 From: <sip:2015@10.89.78.195>;tag=5381~e811c00a-4a66-4296-a800-0718da03b731-19486329
 To: <sip:1003@10.89.78.205>;tag=2263~1ebcd687-60ae-450a-823c-0469b2740097-32848821
 Date: Tue, 21 Dec 2010 21:18:43 GMT
 Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:2015@10.89.78.195>
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bKb34bbd3ee
 From: <sip:2015@10.89.78.195>;tag=5381~e811c00a-4a66-4296-a800-0718da03b731-19486329
 To: <sip:1003@10.89.78.205>;tag=2263~1ebcd687-60ae-450a-823c-0469b2740097-32848821
 Date: Tue, 21 Dec 2010 21:18:55 GMT
 Call-ID: e22d0100-d11119b3-2c-c34e590a@10.89.78.195
 CSeq: 103 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**28. EarlyOffer****28.1 Basic Call from SCCP legacy to a SCCP TNP Device**

Title: Basic Call from SCCP legacy to a SCCP TNP Device

Description:

Basic Call from SCCP legacy 7940 to a SCCP TNP Device via an Early Offer enabled Inter Cluster SIP Trunk

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.81.54.134

Node = Unified CM2, IP = 10.1.197.55

Phone = A, Line = 7002, IP = 10.1.193.54, Model = SCCP

Phone = B, Line = 1016, IP = 10.1.193.101, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 88.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

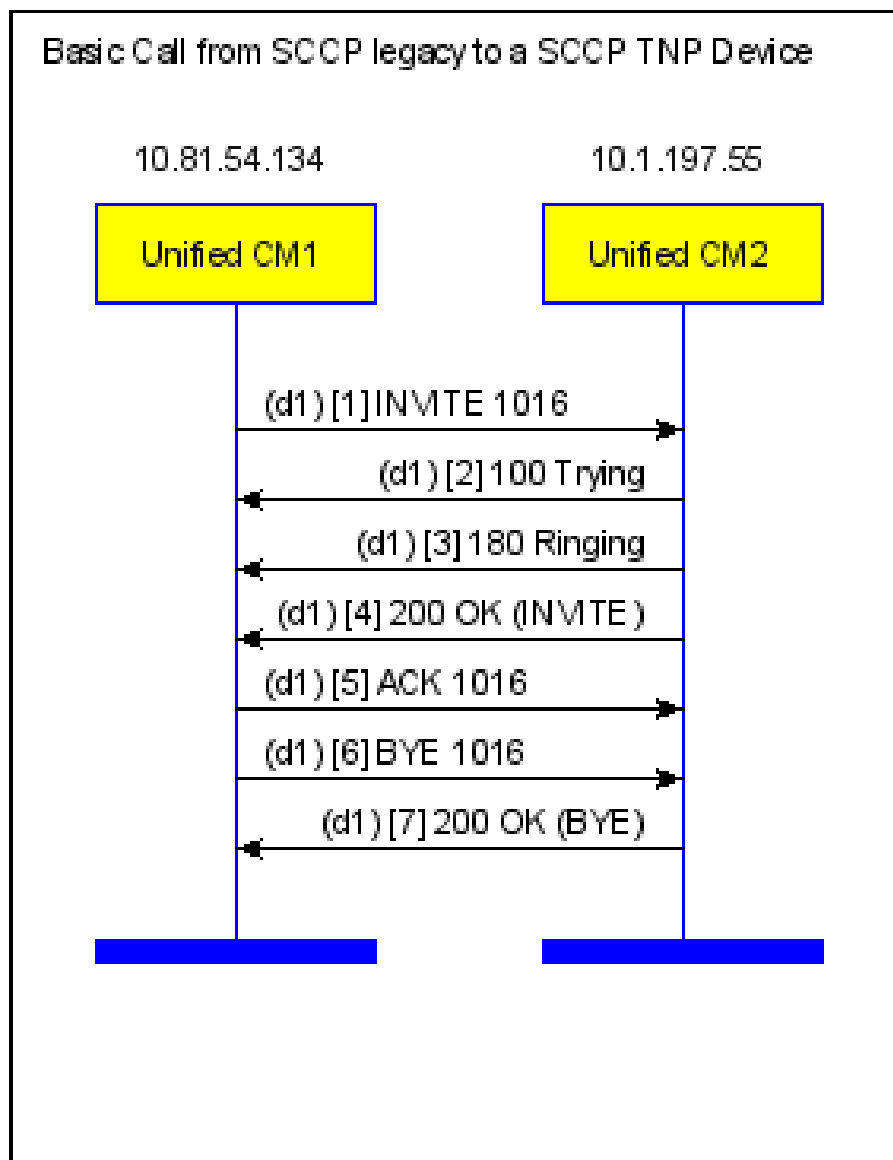
Scenario:

Phone A DN 7002 calls Phone B DN 1016 over the SIP Trunk by dialing 881016

Phone B DN 1016 Answers

Phone A DN 7002 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1016@10.1.197.55:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK75673ab4b
 From: <sip:7002@10.81.54.134>;tag=18~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230374
 To: <sip:1016@10.1.197.55>
 Date: Wed, 17 Nov 2010 17:45:06 GMT
 Call-ID: 689a8280-ce4114a2-4-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1754956416-00000065536-0000000003-2251706634
 Session-Expires: 1800
 P-Asserted-Identity: <sip:7002@10.81.54.134>
 Remote-Party-ID: <sip:7002@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7002@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 300

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.81.54.134
 b=TIAS:64000
 t=0 0
 m=audio 24576 RTP/AVP 0 8 18 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK75673ab4b
 From: <sip:7002@10.81.54.134>;tag=18~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230374
 To: <sip:1016@10.1.197.55>
 Date: Wed, 17 Nov 2010 17:45:06 GMT
 Call-ID: 689a8280-ce4114a2-4-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK75673ab4b
 From: <sip:7002@10.81.54.134>;tag=18~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230374
 To: <sip:1016@10.1.197.55>;tag=75395~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175583
 Date: Wed, 17 Nov 2010 17:45:06 GMT
 Call-ID: 689a8280-ce4114a2-4-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK75673ab4b
 From: <sip:7002@10.81.54.134>;tag=18~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230374
 To: <sip:1016@10.1.197.55>;tag=75395~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175583
 Date: Wed, 17 Nov 2010 17:45:06 GMT
 Call-ID: 689a8280-ce4114a2-4-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml

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Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 215

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 24522 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK8f6e573d
 From: <sip:7002@10.81.54.134>;tag=18~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230374
 To: <sip:1016@10.1.197.55>;tag=75395~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175583
 Date: Wed, 17 Nov 2010 17:45:06 GMT
 Call-ID: 689a8280-ce4114a2-4-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] BYE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK918824524
 From: <sip:7002@10.81.54.134>;tag=18~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230374
 To: <sip:1016@10.1.197.55>;tag=75395~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175583
 Date: Wed, 17 Nov 2010 17:45:06 GMT
 Call-ID: 689a8280-ce4114a2-4-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:7002@10.81.54.134>
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK918824524
 From: <sip:7002@10.81.54.134>;tag=18~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230374
 To: <sip:1016@10.1.197.55>;tag=75395~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175583
 Date: Wed, 17 Nov 2010 17:45:20 GMT
 Call-ID: 689a8280-ce4114a2-4-8636510a@10.81.54.134
 CSeq: 102 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**28.2 Basic Call from SCCP TNP to a SCCP TNP Device**

Title: Basic Call from SCCP TNP to a SCCP TNP Device

Description:

Basic Call from SCCP TNP to a SCCP TNP Device via an Early Offer enabled Inter Cluster SIP Trunk

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.81.54.134

Node = Unified CM2, IP = 10.1.197.55

Phone = A, Line = 7002, IP = 10.1.203.233 Model = SCCP

Phone = B, Line = 1016, IP = 10.1.193.101, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 88.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

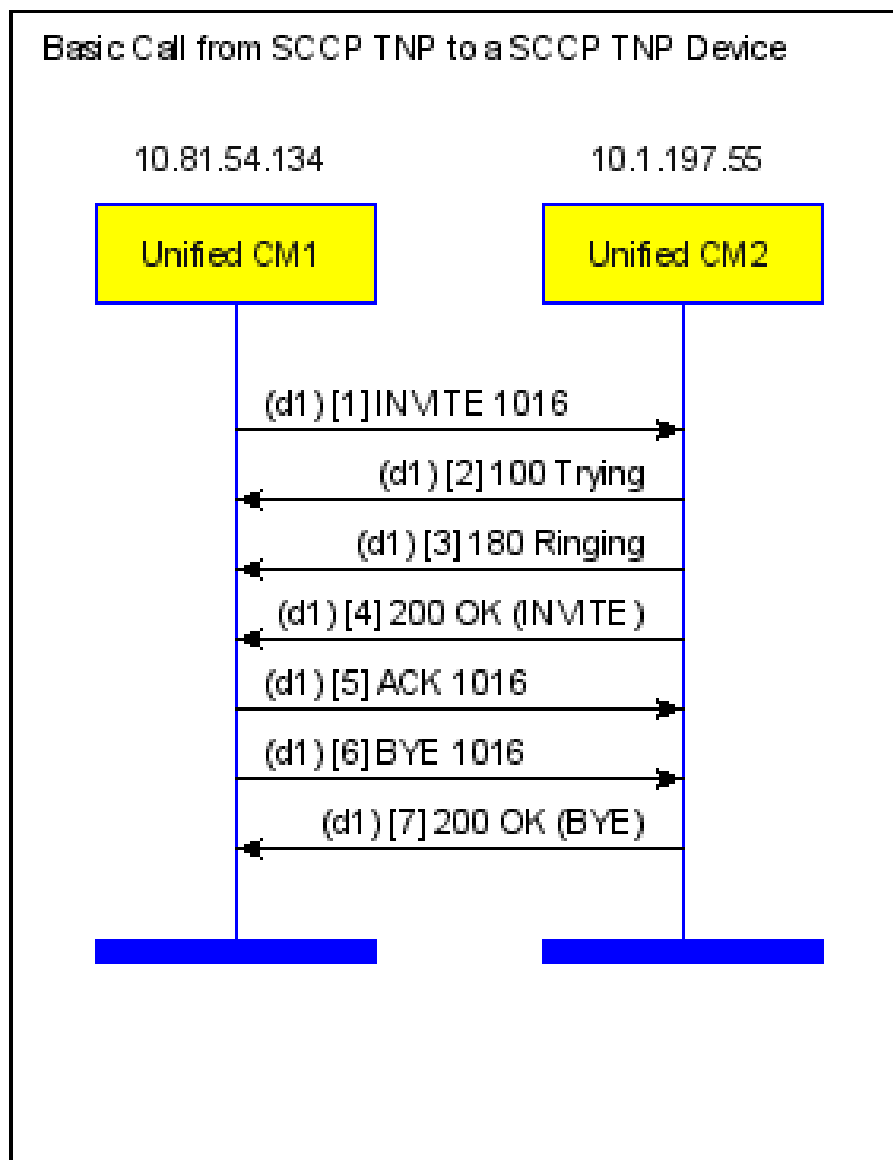
Scenario:

Phone A DN 7002 calls Phone B DN 1016 over the SIP Trunk by dialing 881016

Phone B DN 1016 Answers

Phone A DN 7002 goes onHook

End of Scenario

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CISCO CONFIDENTIAL**[diagram]** Call-ID:[prev]**[next]****[1] INVITE sip:1016@10.1.197.55:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK4546365b1

From: <sip:7003@10.81.54.134>;tag=14~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230372

To: <sip:1016@10.1.197.55>

Date: Wed, 17 Nov 2010 17:40:09 GMT

Call-ID: b793e800-ce411379-3-8636510a@10.81.54.134

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 3079923712-00000065536-0000000002-2251706634

Session-Expires: 1800

P-Asserted-Identity: <sip:7003@10.81.54.134>

Remote-Party-ID: <sip:7003@10.81.54.134>;party=calling;screen=yes;privacy=off

Contact: <sip:7003@10.81.54.134:5060;transport=tcp>

Max-Forwards: 70

Content-Type: application/sdp

Content-Length: 338

v=0

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134

s=SIP Call

c=IN IP4 10.1.203.233

b=TIAS:64000

t=0 0

m=audio 24988 RTP/AVP 9 0 8 18 101

a=rtpmap:9 G722/8000

a=ptime:20

a=rtpmap:0 PCMU/8000

a=ptime:20

a=rtpmap:8 PCMA/8000

a=ptime:20

a=rtpmap:18 G729/8000

a=ptime:20

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

[diagram] Call-ID:[prev]**[next]****[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK4546365b1

From: <sip:7003@10.81.54.134>;tag=14~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230372

To: <sip:1016@10.1.197.55>

Date: Wed, 17 Nov 2010 17:40:09 GMT

Call-ID: b793e800-ce411379-3-8636510a@10.81.54.134

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[diagram] Call-ID:[prev]**[next]****[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK4546365b1

From: <sip:7003@10.81.54.134>;tag=14~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230372

To: <sip:1016@10.1.197.55>;tag=75366~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175581

Date: Wed, 17 Nov 2010 17:40:09 GMT

Call-ID: b793e800-ce411379-3-8636510a@10.81.54.134

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence

Supported: X-cisco-srtp-fallback

Supported: Geolocation

P-Asserted-Identity: <sip:1016@10.1.197.55>

Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off

Contact: <sip:1016@10.1.197.55:5060;transport=tcp>

Content-Length: 0

[diagram] Call-ID:[prev]**[next]****[4] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK4546365b1

From: <sip:7003@10.81.54.134>;tag=14~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230372

To: <sip:1016@10.1.197.55>;tag=75366~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175581

Date: Wed, 17 Nov 2010 17:40:09 GMT

Call-ID: b793e800-ce411379-3-8636510a@10.81.54.134

CSeq: 101 INVITE

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Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 215

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 27492 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK571bd3922
 From: <sip:7003@10.81.54.134>;tag=14~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230372
 To: <sip:1016@10.1.197.55>;tag=75366~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175581
 Date: Wed, 17 Nov 2010 17:40:09 GMT
 Call-ID: b793e800-ce411379-3-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] BYE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK661766144
 From: <sip:7003@10.81.54.134>;tag=14~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230372
 To: <sip:1016@10.1.197.55>;tag=75366~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175581
 Date: Wed, 17 Nov 2010 17:40:09 GMT
 Call-ID: b793e800-ce411379-3-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:7003@10.81.54.134>
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK661766144
 From: <sip:7003@10.81.54.134>;tag=14~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230372
 To: <sip:1016@10.1.197.55>;tag=75366~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175581
 Date: Wed, 17 Nov 2010 17:40:19 GMT
 Call-ID: b793e800-ce411379-3-8636510a@10.81.54.134
 CSeq: 102 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**28.3 Basic Call from a secure SCCP TNP to a SCCP TNP Device**

Title: Basic Call from a secure SCCP TNP to a SCCP TNP Device

Description:

Basic Call from a secure SCCP TNP to a SCCP TNP Device via an Early Offer enabled Inter Cluster SIP Trunk with PRACK enabled

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.1.199.76

Node = Unified CM2, IP = 10.1.203.182

Phone = A, Line = 3009, IP = 10.1.199.56, Model = SCCP

Phone = B, Line = 6003, IP = 10.1.193.82, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 80.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer and PRACK

Scenario:

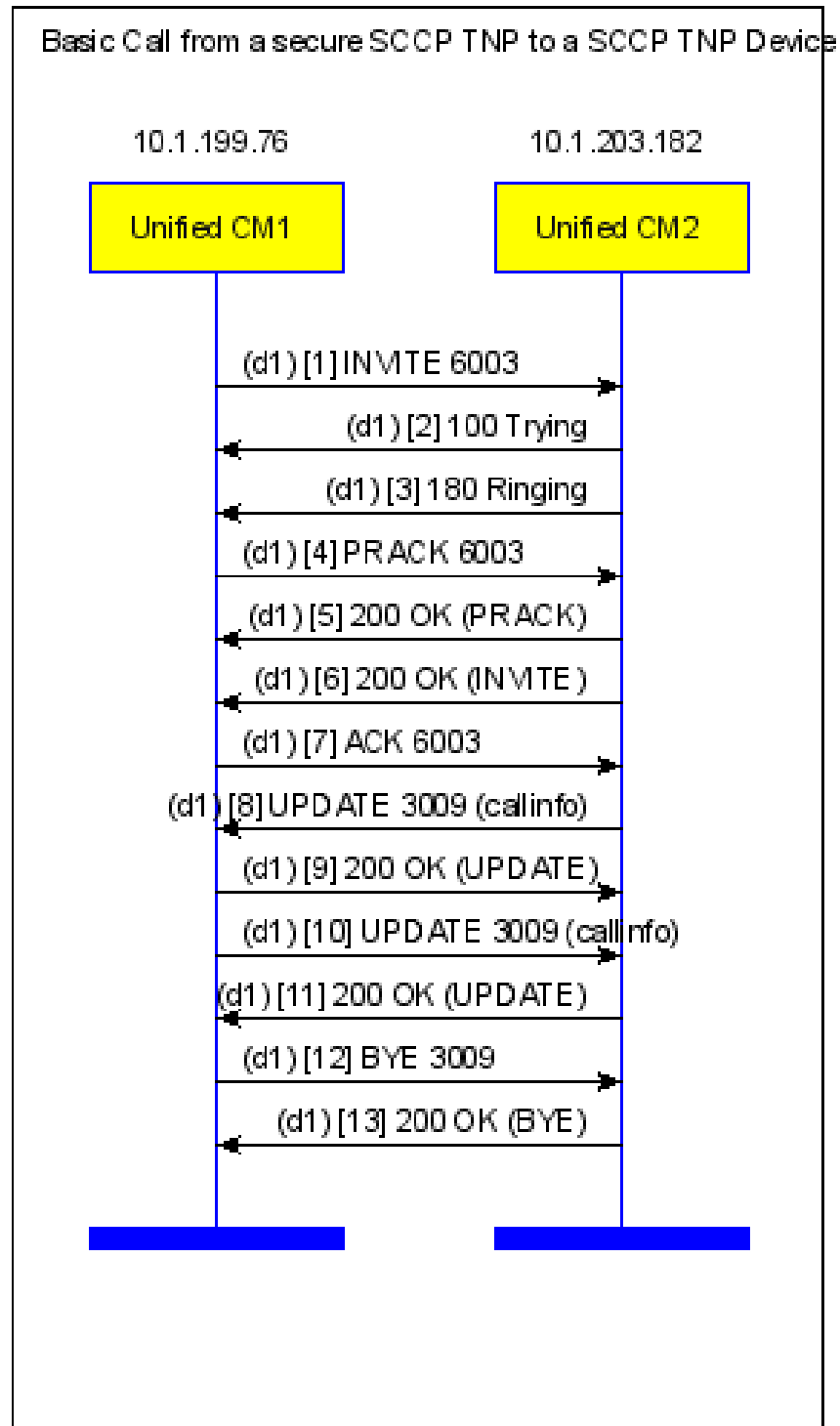
Phone A DN 3009 calls Phone B DN 6003 over the SIP Trunk by dialing 806003

Phone B DN 6003 Answers

Phone A DN 3009 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:6003@10.1.203.182:5061 SIP/2.0**

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK149fdc462
 From: <sip:3009@10.1.199.76>;tag=25~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>
 Date: Wed, 17 Nov 2010 18:35:12 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 Supported: 100rel, timer, resource-priority, replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.1.199.76:5061>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1750185344-0000065536-0000000003-1288114860
 Session-Expires: 1800
 P-Asserted-Identity: <sip:3009@10.1.199.76>
 Remote-Party-ID: <sip:3009@10.1.199.76>;party=calling;screen=yes;privacy=off
 Contact: <sip:3009@10.1.199.76:5061;transport=tls>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 387

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.199.76
 s=SIP Call
 c=IN IP4 10.1.199.56
 b=TIAS:64000
 t=0 0
 m=audio 28532 RTP/SAVP 0 8 18 101
 a=crypto:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK149fdc462
 From: <sip:3009@10.1.199.76>;tag=25~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>
 Date: Wed, 17 Nov 2010 18:35:12 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK149fdc462
 From: <sip:3009@10.1.199.76>;tag=25~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566~366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:12 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Require: 100rel
 RSeq: 2014755052
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=called;screen=yes;privacy=off
 Contact: <sip:6003@10.1.203.182:5061;transport=tls>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] PRACK sip:6003@10.1.203.182:5061;transport=tls SIP/2.0**

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK155207ef74
 From: <sip:3009@10.1.199.76>;tag=25~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566~366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:12 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76

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CSeq: 102 PRACK
 RAck: 2014755052 101 INVITE
 Allow-Events: presence, kpml
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK155207ef74
 From: <sip:3009@10.1.199.76>;tag=25~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566~366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:12 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 CSeq: 102 PRACK
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 200 OK

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK149fdc462
 From: <sip:3009@10.1.199.76>;tag=25~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566~366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:12 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=called;screen=yes;privacy=off
 Contact: <sip:6003@10.1.203.182:5061;transport=tls>
 Content-Type: application/sdp
 Content-Length: 300

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.203.182
 s=SIP Call
 c=IN IP4 10.1.193.82
 t=0 0
 m=audio 24820 RTP/SAVP 0 101
 a=crypto:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] ACK sip:6003@10.1.203.182:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK1645ea23ff
 From: <sip:3009@10.1.199.76>;tag=25~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566~366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:12 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] UPDATE sip:3009@10.1.199.76:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 10.1.203.182:5061;branch=z9hG4bK346cadb2d
 From: <sip:6003@10.1.203.182>;tag=31566~366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 To: <sip:3009@10.1.199.76>;tag=25~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 Date: Wed, 17 Nov 2010 18:35:14 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: 100rel,timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 UPDATE
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= Encrypted; gci= 1-70005; policy= chaperone
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=calling;screen=yes;privacy=off
 Contact: <sip:3009@10.1.203.182:5061;transport=tls>
 Content-Length: 0

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[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TLS 10.1.203.182:5061;branch=z9hG4bK346cadb2d
 From: <sip:6003@10.1.203.182>;tag=31566-366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 To: <sip:3009@10.1.199.76>;tag=25-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 Date: Wed, 17 Nov 2010 18:35:15 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 CSeq: 101 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3009@10.1.199.76>
 Remote-Party-ID: <sip:3009@10.1.199.76>;party=called;screen=yes;privacy=off
 Contact: <sip:3009@10.1.199.76:5061;transport=tls>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] UPDATE sip:3009@10.1.203.182:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK174a8c404
 From: <sip:3009@10.1.199.76>;tag=25-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566-366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:15 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: 100rel,timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 UPDATE
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= Encrypted; gci= 1-236002; policy= chaperone
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3009@10.1.199.76>
 Remote-Party-ID: <sip:3009@10.1.199.76>;party=calling;screen=yes;privacy=off
 Contact: <sip:3009@10.1.199.76:5061;transport=tls>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK174a8c404
 From: <sip:3009@10.1.199.76>;tag=25-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566-366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:15 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 CSeq: 103 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=called;screen=yes;privacy=off
 Contact: <sip:6003@10.1.203.182:5061;transport=tls>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] BYE sip:3009@10.1.203.182:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK185bf58604
 From: <sip:3009@10.1.199.76>;tag=25-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566-366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:15 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:3009@10.1.199.76>
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 200 OK

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK185bf58604
 From: <sip:3009@10.1.199.76>;tag=25-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246184
 To: <sip:6003@10.1.203.182>;tag=31566-366bf88b-400e-47ce-9d44-1109d1875b54-28483337
 Date: Wed, 17 Nov 2010 18:35:18 GMT
 Call-ID: 6851b580-ce412060-11-4cc712ac@10.1.199.76
 CSeq: 104 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**28.4 Send Call to Mobile call to a SCCP phone**

Title: Send Call to Mobile call to a SCCP phone

Description:

Send Call to Mobile call to a SCCP phone across an Early Offer enabled Inter Cluster SIP Trunk

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.1.199.76

Node = Unified CM2, IP = 10.1.203.182

Phone = A, Line = 3002, IP = 10.1.195.76, Model = SIP

Phone = B, Line = 3007, IP = 10.1.199.41, Model = SCCP

Phone = C, Line = 6003, IP = 10.1.193.82, Model = SCCP

Phone C is the remote destination for Phone B and is reachable over a SIP Trunk.

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 80.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

Scenario:

Phone A DN 3002 calls Phone B DN 3007

Phone B DN 3007 Answers

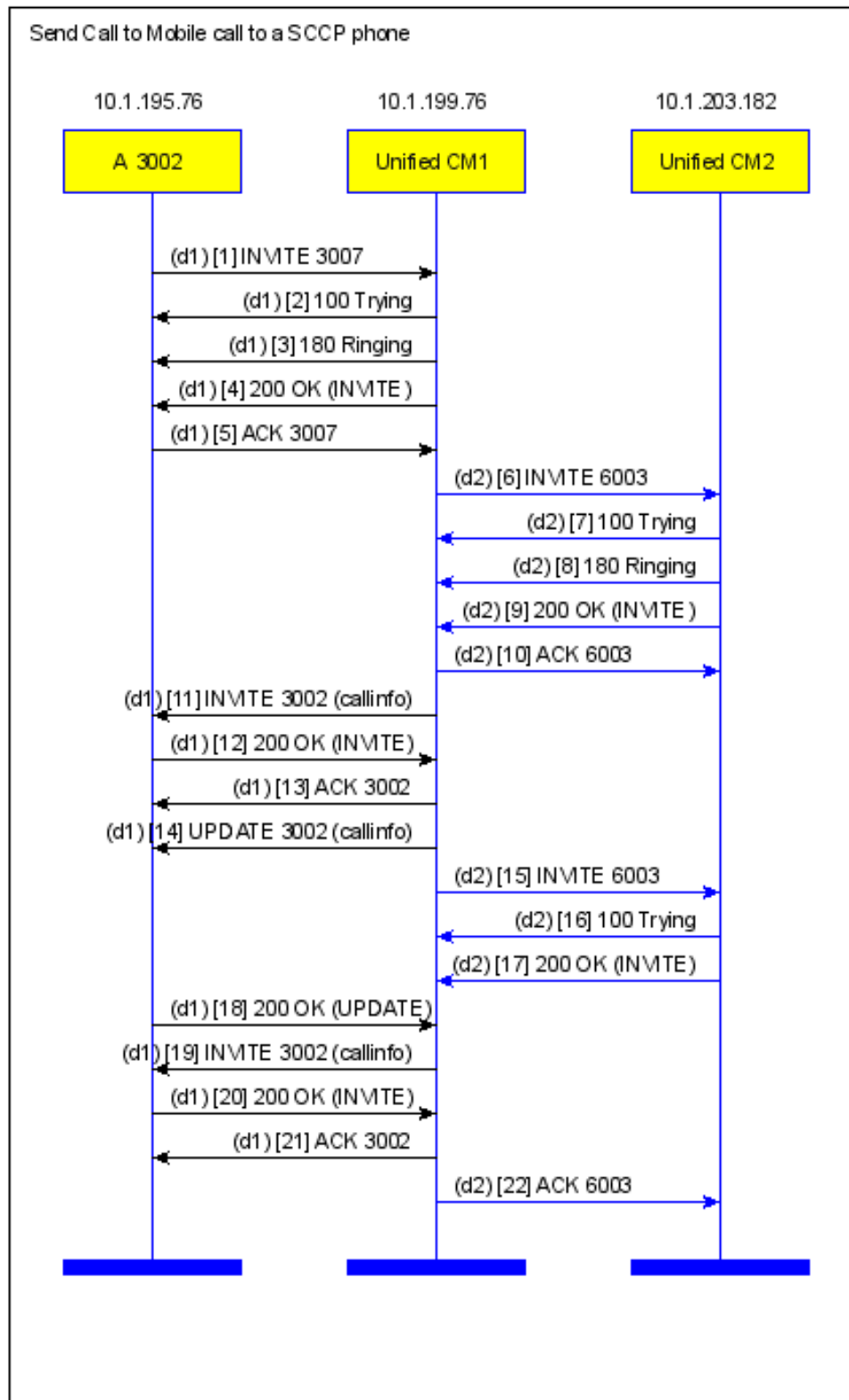
Phone B DN 3007 presses the Mobility softkey and then presses Send Call to Mobile

Phone C DN 6003 Answers

Phone A DN 3002 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:3007@10.1.199.76 SIP/2.0**

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK5a72afa5
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 To: <sip:3007@10.1.199.76>
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 Max-Forwards: 70
 CSeq: 101 INVITE
 User-Agent: Cisco-CP7940G/8.0
 Contact: <sip:3002@10.1.195.76:5060;transport=udp>
 Expires: 180
 Accept: application/sdp
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
 Remote-Party-ID: "3002" <sip:3002@10.1.199.76>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 278
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 20450 0 IN IP4 10.1.195.76
 s=SIP Call
 t=0 0
 m=audio 19810 RTP/AVP 0 8 18 101
 c=IN IP4 10.1.195.76
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK5a72afa5
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 To: <sip:3007@10.1.199.76>
 Date: Wed, 17 Nov 2010 18:51:19 GMT
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK5a72afa5
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 To: <sip:3007@10.1.199.76>;tag=81-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190
 Date: Wed, 17 Nov 2010 18:51:19 GMT
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-236005; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:3007@10.1.199.76>;party=called;screen=yes;privacy=off
 Contact: <sip:3007@10.1.199.76:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK5a72afa5
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 To: <sip:3007@10.1.199.76>;tag=81-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190
 Date: Wed, 17 Nov 2010 18:51:19 GMT
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-236005;
 call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:3007@10.1.199.76>;party=called;screen=yes;privacy=off
 Contact: <sip:3007@10.1.199.76:5060>
 Content-Type: application/sdp
 Content-Length: 214

v=0

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```

o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.199.76
s=SIP Call
c=IN IP4 10.1.199.41
t=0 0
m=audio 23664 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] ACK sip:3007@10.1.199.76:5060 SIP/2.0

```

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK4898240f
From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
To: <sip:3007@10.1.199.76>;tag=81-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190
Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
Max-Forwards: 70
CSeq: 101 ACK
User-Agent: Cisco-CP7940G/8.0
Remote-Party-ID: "3002" <sip:3002@10.1.199.76>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] INVITE sip:6003@10.1.203.182:5061 SIP/2.0

```

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK435c42a906
From: <sip:3002@10.1.199.76>;tag=83-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193
To: <sip:6003@10.1.203.182>
Date: Wed, 17 Nov 2010 18:51:29 GMT
Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Cisco-Guid: 2930250752-0000065536-0000000006-1288114860
Session-Expires: 1800
P-Asserted-Identity: <sip:3002@10.1.199.76>
Remote-Party-ID: <sip:3002@10.1.199.76>;party=calling;screen=yes;privacy=off
Contact: <sip:3002@10.1.199.76:5061;transport=tl>
Max-Forwards: 70
Content-Type: application/sdp
Content-Length: 564

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.199.76
s=SIP Call
c=IN IP4 10.1.199.76
t=0 0
m=audio 24578 RTP/AVP 8 0 4 15 18 3 0 0 0 101
a=rtpmap:8 PCMA/8000
a=ptime:60
a=rtpmap:0 PCMU/8000
a=ptime:60
a=rtpmap:4 G723/8000
a=ptime:60
a=rtpmap:15 G728/8000
a=ptime:60
a=rtpmap:3 GSM/8000
a=ptime:60
a=rtpmap:0 mpeg4-generic/0/0
a=fmtp:0 profile-level-id=0;mode=generic
a=rtpmap:0 iLBC/8000
a=ptime:0
a=maxptime:60
a=fmtp:0 mode=30
a=rtpmap:0 iSAC/16000
a=rtpmap:18 G729/8000
a=ptime:60
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 100 Trying

```

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK435c42a906
From: <sip:3002@10.1.199.76>;tag=83-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193
To: <sip:6003@10.1.203.182>

```

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Date: Wed, 17 Nov 2010 18:51:29 GMT
 Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 180 Ringing

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK435c42a906
 From: <sip:3002@10.1.199.76>;tag=83~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193
 To: <sip:6003@10.1.203.182>;tag=31587~366bf88b-400e-47ce-9d44-1109d1875b54-28483343
 Date: Wed, 17 Nov 2010 18:51:29 GMT
 Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=called;screen=yes;privacy=off
 Contact: <sip:6003@10.1.203.182:5061;transport=tls>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK435c42a906
 From: <sip:3002@10.1.199.76>;tag=83~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193
 To: <sip:6003@10.1.203.182>;tag=31587~366bf88b-400e-47ce-9d44-1109d1875b54-28483343
 Date: Wed, 17 Nov 2010 18:51:29 GMT
 Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=called;screen=yes;privacy=off
 Contact: <sip:6003@10.1.203.182:5061;transport=tls>
 Content-Type: application/sdp
 Content-Length: 215

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.203.182
 s=SIP Call
 c=IN IP4 10.1.193.82
 t=0 0
 m=audio 24298 RTP/AVP 0 101
 a=rtptime:0 PCMU/8000
 a=ptime:20
 a=rtptime:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:6003@10.1.203.182:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK44763e381b
 From: <sip:3002@10.1.199.76>;tag=83~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193
 To: <sip:6003@10.1.203.182>;tag=31587~366bf88b-400e-47ce-9d44-1109d1875b54-28483343
 Date: Wed, 17 Nov 2010 18:51:29 GMT
 Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INVITE sip:3002@10.1.195.76:5060;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.1.199.76:5060;branch=z9hG4bK456c7d0482
 From: <sip:3007@10.1.199.76>;tag=81~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190
 To: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 Date: Wed, 17 Nov 2010 18:51:32 GMT
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70

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Expires: 180
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-236005;
 call-instance= 1
 Remote-Party-ID: <sip:3007@10.1.199.76>;party=calling;screen=yes;privacy=off
 Contact: <sip:3002@10.1.199.76:5060>
 Content-Type: application/sdp
 Content-Length: 220

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.1.199.76
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 23664 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.1.199.76:5060;branch=z9hG4bK456c7d0482
 From: <sip:3007@10.1.199.76>;tag=81~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190
 To: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 CSeq: 101 INVITE
 Server: Cisco-CP7940G/8.0
 Contact: <sip:3002@10.1.195.76:5060;transport=udp>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE
 Remote-Party-ID: "3002" <sip:3002@10.1.199.76>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 207
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 20450 1 IN IP4 10.1.195.76
 s=SIP Call
 t=0 0
 m=audio 19810 RTP/AVP 0 101
 c=IN IP4 10.1.195.76
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] ACK sip:3002@10.1.195.76:5060;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.1.199.76:5060;branch=z9hG4bK4669463f22
 From: <sip:3007@10.1.199.76>;tag=81~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190
 To: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 Date: Wed, 17 Nov 2010 18:51:32 GMT
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] UPDATE sip:3002@10.1.195.76:5060;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.1.199.76:5060;branch=z9hG4bK473764182b
 From: <sip:3007@10.1.199.76>;tag=81~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190
 To: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 Date: Wed, 17 Nov 2010 18:51:32 GMT
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 UPDATE
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-236005;
 call-instance= 1
 Remote-Party-ID: <sip:3007@10.1.199.76>;party=calling;screen=yes;privacy=off
 Contact: <sip:3002@10.1.199.76:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] INVITE sip:6003@10.1.203.182:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK486a1c5342

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From: <sip:3002@10.1.199.76>;tag=83~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193
 To: <sip:6003@10.1.203.182>;tag=31587~366bf88b-400e-47ce-9d44-1109d1875b54-28483343
 Date: Wed, 17 Nov 2010 18:51:33 GMT
 Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:3002@10.1.199.76>
 Remote-Party-ID: <sip:3002@10.1.199.76>;party=calling;screen=yes;privacy=off
 Contact: <sip:3002@10.1.199.76:5061;transport=tls>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 100 Trying

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK486a1c5342
 From: <sip:3002@10.1.199.76>;tag=83~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193
 To: <sip:6003@10.1.203.182>;tag=31587~366bf88b-400e-47ce-9d44-1109d1875b54-28483343
 Date: Wed, 17 Nov 2010 18:51:33 GMT
 Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK486a1c5342
 From: <sip:3002@10.1.199.76>;tag=83~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193
 To: <sip:6003@10.1.203.182>;tag=31587~366bf88b-400e-47ce-9d44-1109d1875b54-28483343
 Date: Wed, 17 Nov 2010 18:51:33 GMT
 Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=called;screen=yes;privacy=off
 Contact: <sip:6003@10.1.203.182:5061;transport=tls>
 Content-Type: application/sdp
 Content-Length: 410

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.1.203.182
 s=SIP Call
 c=IN IP4 10.1.193.82
 t=0 0
 m=audio 24330 RTP/SAVP 9 0 8 18 101
 a=crypto:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.1.199.76:5060;branch=z9hG4bK473764182b
 From: <sip:3007@10.1.199.76>;tag=81~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190
 To: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87
 Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76
 CSeq: 102 UPDATE
 Server: Cisco-CP7940G/8.0
 Contact: <sip:3002@10.1.195.76:5060;transport=udp>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[19] INVITE sip:3002@10.1.195.76:5060;transport=udp SIP/2.0**

Via: SIP/2.0/UDP 10.1.199.76:5060;branch=z9hG4bK49b7feaf

From: <sip:3007@10.1.199.76>;tag=81~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190

To: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87

Date: Wed, 17 Nov 2010 18:51:33 GMT

Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 103 INVITE

Max-Forwards: 70

Expires: 180

Allow-Events: presence

Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-236005;

call-instance= 1

Remote-Party-ID: <sip:3007@10.1.199.76>;party=calling;screen=yes;privacy=off

Contact: <sip:3002@10.1.199.76:5060>;video;audio

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[20] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.1.199.76:5060;branch=z9hG4bK49b7feaf

From: <sip:3007@10.1.199.76>;tag=81~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190

To: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87

Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76

CSeq: 103 INVITE

Server: Cisco-CP7940G/8.0

Contact: <sip:3002@10.1.195.76:5060;transport=udp>

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE

Remote-Party-ID: "3002" <sip:3002@10.1.199.76>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 278

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 20450 2 IN IP4 10.1.195.76

s=SIP Call

t=0 0

m=audio 19810 RTP/AVP 0 8 18 101

c=IN IP4 10.1.195.76

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[21] ACK sip:3002@10.1.195.76:5060;transport=udp SIP/2.0**

Via: SIP/2.0/UDP 10.1.199.76:5060;branch=z9hG4bK4a2b06bab

From: <sip:3007@10.1.199.76>;tag=81~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246190

To: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507554045b6f-41f63d87

Date: Wed, 17 Nov 2010 18:51:33 GMT

Call-ID: 000f23e7-25c3775d-1cc89275-40202c3e@10.1.195.76

Max-Forwards: 70

CSeq: 103 ACK

Allow-Events: presence

Content-Type: application/sdp

Content-Length: 214

v=0

o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.1.199.76

s=SIP Call

c=IN IP4 10.1.193.82

t=0 0

m=audio 24330 RTP/AVP 0 101

a=rtpmap:0 PCMU/8000

a=ptime:20

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[22] ACK sip:60030@10.1.203.182:5061;transport=tls SIP/2.0**

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK4b6da084bb

From: <sip:3002@10.1.199.76>;tag=83~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246193

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To: <sip:6003@10.1.203.182>;tag=31587~366bf88b-400e-47ce-9d44-1109d1875b54-28483343
Date: Wed, 17 Nov 2010 18:51:33 GMT
Call-ID: aea81400-ce412431-32-4cc712ac@10.1.199.76
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 214

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.1.199.76
s=SIP Call
c=IN IP4 10.1.195.76
t=0 0
m=audio 19810 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

CISCO CONFIDENTIAL**28.5 SNR call from a SIP 7940 Device**

Title: SNR call from a SIP 7940 Device

Description:

SNR call from a SIP 7940 Device across an Early Offer enabled Inter Cluster SIP Trunk

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.1.199.76

Node = Unified CM2, IP = 10.1.203.182

Phone = A, Line = 3002, IP = 10.1.195.76, Model = SIP

Phone = B, Line = 3007, IP = 10.1.199.41, Model = SCCP

Phone = C, Line = 6003, IP = 10.1.193.82, Model = SCCP

Phone C is the remote destination for Phone B and is reachable over a SIP Trunk.

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 80.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

Scenario:

Phone A DN 3002 calls Phone B DN 3007

Phone B DN 3007 lets the call ring

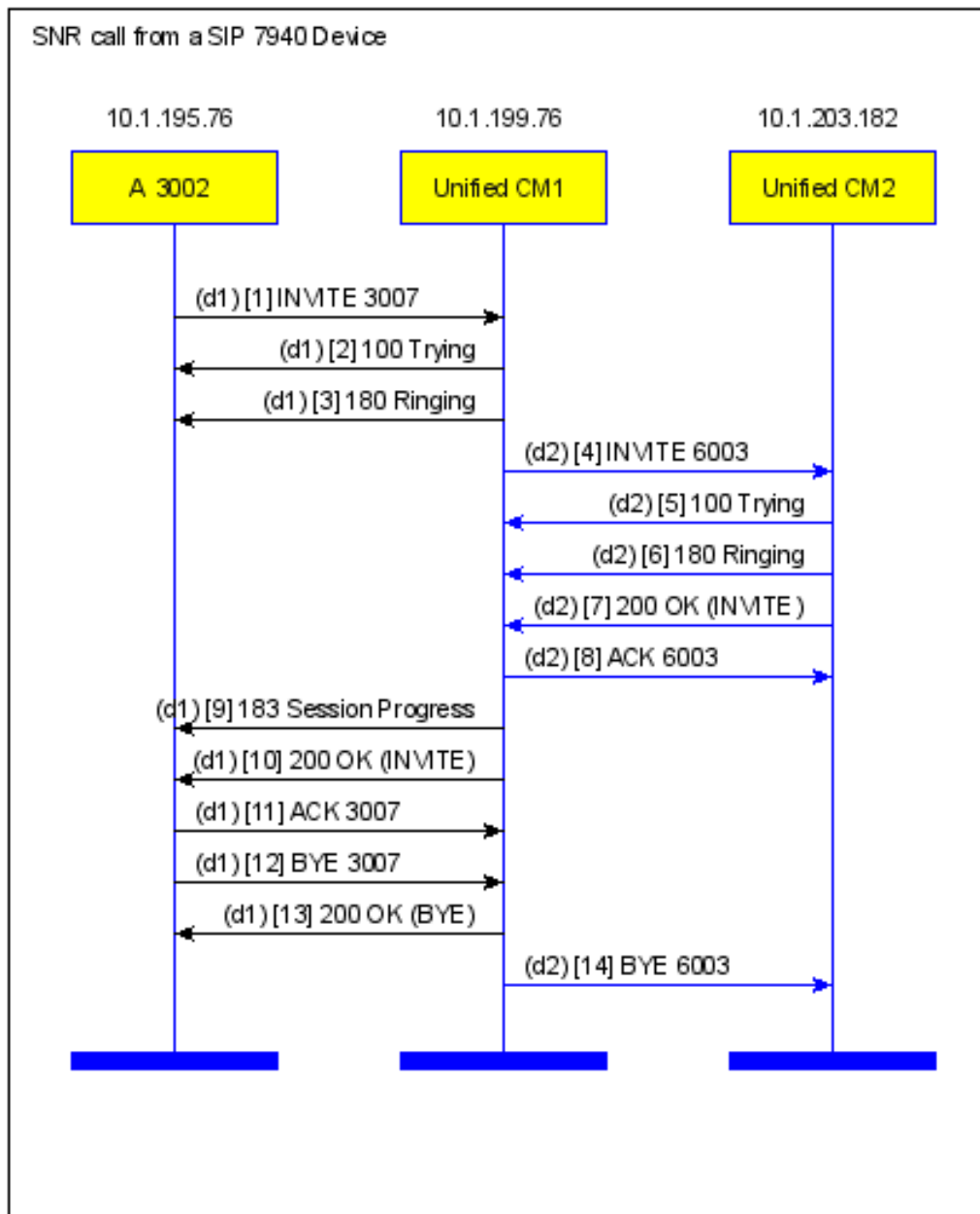
About few seconds later, the call is offered to Phone C across the SIP Trunk

Phone C DN 6003 Answers

Phone A DN 3002 goes onHook

End of Scenario

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Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK57fd28fc
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507101639880-176e35d5
 To: <sip:3007@10.1.199.76>
 Call-ID: 000f23e7-25c3775c-524bcf4e-1b661a69@10.1.195.76
 Max-Forwards: 70
 CSeq: 101 INVITE
 User-Agent: Cisco-CP7940G/8.0
 Contact: <sip:3002@10.1.195.76:5060;transport=udp>
 Expires: 180
 Accept: application/sdp
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
 Remote-Party-ID: "3002" <sip:3002@10.1.199.76>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 278
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 26698 0 IN IP4 10.1.195.76
 s=SIP Call
 t=0 0
 m=audio 29904 RTP/AVP 0 8 18 101
 c=IN IP4 10.1.195.76
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[diagram] Call-ID:[prev][next]**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK57fd28fc
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507101639880-176e35d5
 To: <sip:3007@10.1.199.76>
 Date: Wed, 17 Nov 2010 18:45:37 GMT
 Call-ID: 000f23e7-25c3775c-524bcf4e-1b661a69@10.1.195.76
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[diagram] Call-ID:[prev][next]**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK57fd28fc
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507101639880-176e35d5
 To: <sip:3007@10.1.199.76>;tag=59-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246189
 Date: Wed, 17 Nov 2010 18:45:37 GMT
 Call-ID: 000f23e7-25c3775c-524bcf4e-1b661a69@10.1.195.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-236004; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:3007@10.1.199.76>;party=called;screen=yes;privacy=off
 Contact: <sip:3007@10.1.199.76:5060>
 Content-Length: 0

[diagram] Call-ID:[prev][next]**[4] INVITE sip:6003@10.1.203.182:5061 SIP/2.0**

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK36656dd360
 From: <sip:3002@10.1.199.76>;tag=62-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246189
 To: <sip:6003@10.1.203.182>
 Date: Wed, 17 Nov 2010 18:45:41 GMT
 Call-ID: df3b7e00-ce4122d5-27-4cc712ac@10.1.199.76
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 3745218048-0000065536-0000000005-1288114860
 Session-Expires: 1800
 P-Asserted-Identity: <sip:3002@10.1.199.76>
 Remote-Party-ID: <sip:3002@10.1.199.76>;party=calling;screen=yes;privacy=off

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Contact: <sip:3002@10.1.199.76:5061;transport=tls>
 Max-Forwards: 69
 Content-Type: application/sdp
 Content-Length: 323

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.199.76
 s=SIP Call
 c=IN IP4 10.1.195.76
 b=TIAS:64000
 t=0 0
 m=audio 29904 RTP/AVP 0 8 18 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 100 Trying

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK36656dd360
 From: <sip:3002@10.1.199.76>;tag=62~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246189
 To: <sip:6003@10.1.203.182>
 Date: Wed, 17 Nov 2010 18:45:41 GMT
 Call-ID: df3b7e00-ce4122d5-27-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK36656dd360
 From: <sip:3002@10.1.199.76>;tag=62~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246189
 To: <sip:6003@10.1.203.182>;tag=31580~366bf88b-400e-47ce-9d44-1109d1875b54-28483341
 Date: Wed, 17 Nov 2010 18:45:41 GMT
 Call-ID: df3b7e00-ce4122d5-27-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=called;screen=yes;privacy=off
 Contact: <sip:6003@10.1.203.182:5061;transport=tls>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK36656dd360
 From: <sip:3002@10.1.199.76>;tag=62~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246189
 To: <sip:6003@10.1.203.182>;tag=31580~366bf88b-400e-47ce-9d44-1109d1875b54-28483341
 Date: Wed, 17 Nov 2010 18:45:41 GMT
 Call-ID: df3b7e00-ce4122d5-27-4cc712ac@10.1.199.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:6003@10.1.203.182>
 Remote-Party-ID: <sip:6003@10.1.203.182>;party=called;screen=yes;privacy=off
 Contact: <sip:6003@10.1.203.182:5061;transport=tls>
 Content-Type: application/sdp
 Content-Length: 215

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.203.182
 s=SIP Call
 c=IN IP4 10.1.193.82
 t=0 0
 m=audio 22378 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000

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a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] ACK sip:6003@10.1.203.182:5061;transport=tls SIP/2.0
 Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK37c29b74f
 From: <sip:3002@10.1.199.76>;tag=62~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246189
 To: <sip:6003@10.1.203.182>;tag=31580~366bf88b-400e-47ce-9d44-1109d1875b54-28483341
 Date: Wed, 17 Nov 2010 18:45:41 GMT
 Call-ID: df3b7e00-ce4122d5-27-4cc712ac@10.1.199.76
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 183 Session Progress
 Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK57fd28fc
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507101639880-176e35d5
 To: <sip:3007@10.1.199.76>;tag=59~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246188
 Date: Wed, 17 Nov 2010 18:45:37 GMT
 Call-ID: 000f23e7-25c3775c-524bcf4e-1b661a69@10.1.195.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-236004; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:3007@10.1.199.76>;party=called;screen=yes;privacy=off
 Contact: <sip:3007@10.1.199.76:5060>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.199.76
 s=SIP Call
 c=IN IP4 10.1.193.82
 t=0 0
 m=audio 22378 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK
 Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK57fd28fc
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507101639880-176e35d5
 To: <sip:3007@10.1.199.76>;tag=59~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246188
 Date: Wed, 17 Nov 2010 18:45:37 GMT
 Call-ID: 000f23e7-25c3775c-524bcf4e-1b661a69@10.1.195.76
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-236004;
 call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:3007@10.1.199.76>;party=called;screen=yes;privacy=off
 Contact: <sip:3007@10.1.199.76:5060>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.199.76
 s=SIP Call
 c=IN IP4 10.1.193.82
 t=0 0
 m=audio 22378 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] ACK sip:3007@10.1.199.76:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK642fc2c6
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507101639880-176e35d5
 To: <sip:3007@10.1.199.76>;tag=59~98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246188
 Call-ID: 000f23e7-25c3775c-524bcf4e-1b661a69@10.1.195.76
 Max-Forwards: 70

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CSeq: 101 ACK
 User-Agent: Cisco-CP7940G/8.0
 Remote-Party-ID: "3002" <sip:3002@10.1.199.76>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] BYE sip:3007@10.1.199.76:5060 SIP/2.0

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK0814b3ff
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507101639880-176e35d5
 To: <sip:3007@10.1.199.76>;tag=59-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246188
 Call-ID: 000f23e7-25c3775c-524bcf4e-1b661a69@10.1.195.76
 Max-Forwards: 70
 CSeq: 102 BYE
 User-Agent: Cisco-CP7940G/8.0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.1.195.76:5060;branch=z9hG4bK0814b3ff
 From: "3002" <sip:3002@10.1.199.76>;tag=000f23e725c3507101639880-176e35d5
 To: <sip:3007@10.1.199.76>;tag=59-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246188
 Date: Wed, 17 Nov 2010 18:45:50 GMT
 Call-ID: 000f23e7-25c3775c-524bcf4e-1b661a69@10.1.195.76
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] BYE sip:6003@10.1.203.182:5061;transport=tls SIP/2.0

Via: SIP/2.0/TLS 10.1.199.76:5061;branch=z9hG4bK386238b107
 From: <sip:3002@10.1.199.76>;tag=62-98a519b1-5d99-412d-9ffb-4fb7e84ae4ec-26246189
 To: <sip:6003@10.1.203.182>;tag=31580~366bf88b-400e-47ce-9d44-1109d1875b54-28483341
 Date: Wed, 17 Nov 2010 18:45:41 GMT
 Call-ID: df3b7e00-ce4122d5-27-4cc712ac@10.1.199.76
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:3002@10.1.199.76>
 CSeq: 102 BYE
 Content-Length: 0

CISCO CONFIDENTIAL**28.6 Video Call from SIP 9971 to a SIP 9971 Device**

Title: Video Call from SIP 9971 to a SIP 9971 Device

Description:

Video Call from SIP 9971 to a SIP 9971 Device via an Early Offer enabled Inter Cluster SIP Trunk

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.81.54.134

Node = Unified CM2, IP = 10.1.197.55

Phone = A, Line = 7004, IP = 10.1.203.103, Model = SIP 9971

Phone = B, Line = 1017, IP = 10.1.203.162 Model = SIP 9971

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 88.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

Scenario:

Phone A DN 7004 calls Phone B DN 1017 over the SIP Trunk by dialing 881017

Phone B DN 1017 Answers

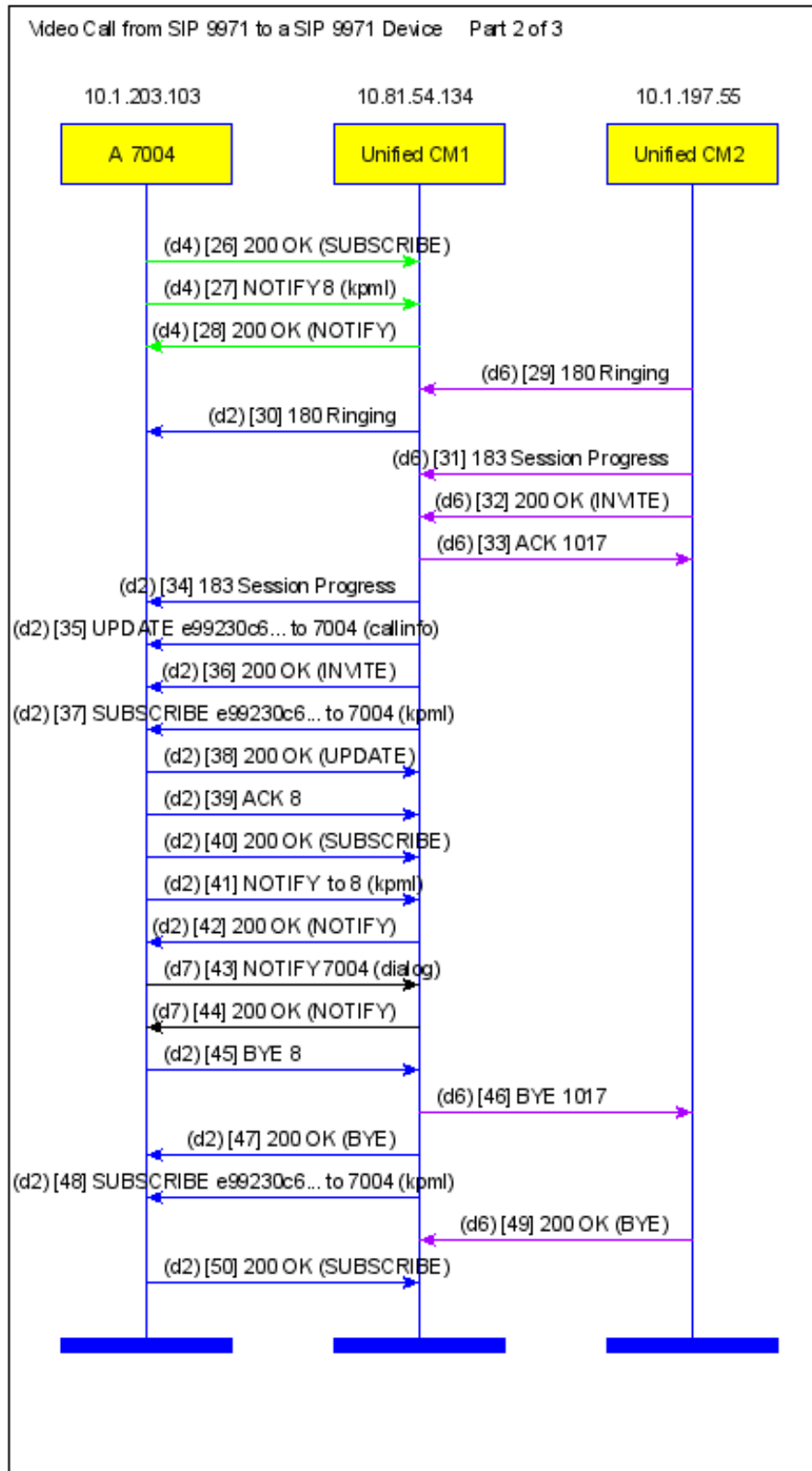
Phone A DN 7004 goes onHook

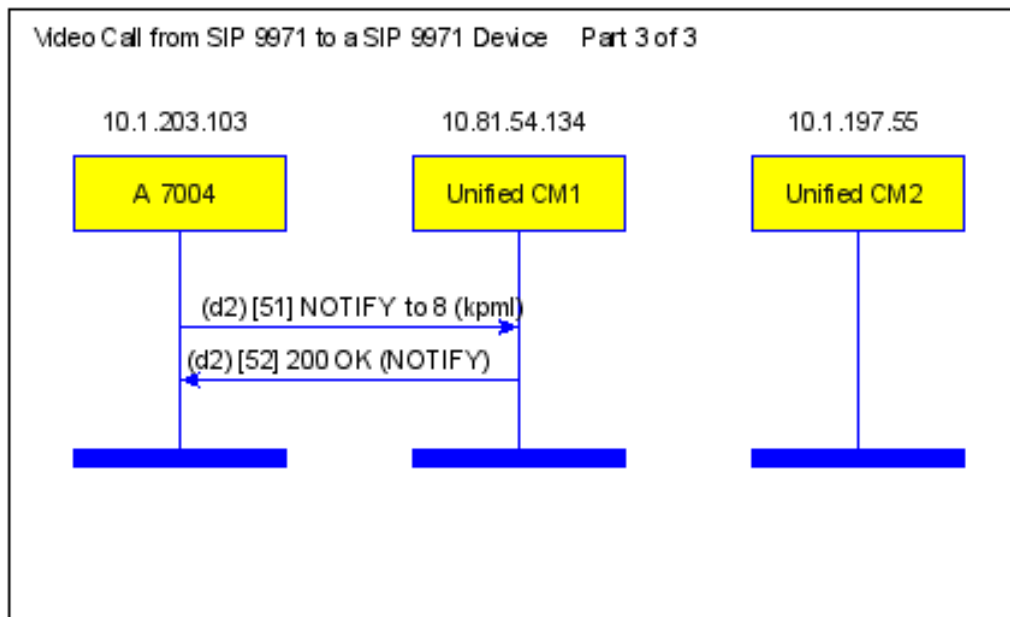
End of Scenario

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[diagram] Call-ID:[prev][next]

[1] NOTIFY sip:7004@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK2f53864b

To: <sip:7004@10.81.54.134>

From: <sip:7004@10.81.54.134>;tag=1c17d3419119001204c11d61-6d089b5e

Call-ID: 63d9a782-305252ea@10.1.203.103

Date: Wed, 17 Nov 2010 18:17:57 GMT

CSeq: 3 NOTIFY

Event: dialog

Subscription-State: active

Max-Forwards: 70

Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 357

Content-Type: application/dialog-info+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8" ?>

<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="2" state="partial" entity="sip:7004@10.1.203.103">

<dialog id="2" call-id="1c17d341-91190009-011f11d1-14876326@10.1.203.103" local-tag="1c17d341911900115f6d4fa8-3fd36ccf"><state>trying</state></dialog>

</dialog-info>

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK2f53864b

From: <sip:7004@10.81.54.134>;tag=1c17d3419119001204c11d61-6d089b5e

To: <sip:7004@10.81.54.134>;tag=2066140510

Date: Wed, 17 Nov 2010 18:17:58 GMT

Call-ID: 63d9a782-305252ea@10.1.203.103

CSeq: 3 NOTIFY

Content-Length: 0

[diagram] Call-ID:[prev][next]

[3] INVITE sip:8@10.81.54.134;user=phone SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK661d0c36

From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf

To: <sip:8@10.81.54.134;user=phone>

Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103

Max-Forwards: 70

Date: Wed, 17 Nov 2010 18:17:58 GMT

CSeq: 101 INVITE

User-Agent: Cisco-CP9971/9.1.1

Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=tcp>

Expires: 180

Accept: application/sdp

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO

Remote-Party-ID: "7004" <sip:7004@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes

Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.0.1

Allow-Events: kpml, dialog

Content-Length: 706

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 13494 0 IN IP4 10.1.203.103

s=SIP Call

t=0 0

m=audio 29052 RTP/AVP 0 8 18 102 9 116 124 101

c=IN IP4 10.1.203.103

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:102 L16/16000

a=rtpmap:9 G722/8000

a=rtpmap:116 iLBC/8000

a=fmtp:116 mode=20

a=rtpmap:124 ISAC/16000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

m=video 20310 RTP/AVP 126 97

c=IN IP4 10.1.203.103

b=TIAS:1000000

a=rtpmap:126 H264/90000

a=fmtp:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1

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```
a=rtpmap:97 H264/90000
a=fmtp:97 profile-level-id=42801E;packetization-mode=0;level-asymmetry-allowed=1
a=sendrecv
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[4] SIP/2.0 100 Trying

```
Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK661d0c36
From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
To: <sip:8@10.81.54.134;user=phone>
Date: Wed, 17 Nov 2010 18:17:59 GMT
Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] REFER sip:7004@10.1.203.103:52604 SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK544a6706ba
From: <sip:7004@10.81.54.134>;tag=672659600
To: <sip:7004@10.1.203.103>
Call-ID: 9a6b00-ce411c57-22-8636510a@10.81.54.134
CSeq: 101 REFER
Max-Forwards: 70
Contact: <sip:7004@10.81.54.134:5060;transport=tcp>
User-Agent: Cisco-CUCM8.5
Expires: 0
Refer-To: cid:1234567890@10.81.54.134
Content-Id: <1234567890@10.81.54.134>
Require: nofollow
Content-Type: application/x-cisco-remotecc-request+xml
Referred-By: <sip:7004@10.81.54.134>
Content-Length: 413
```

```
<x-cisco-remotecc-request>
```

```
<playtonereq>
  <dialogid>
    <callid>1c17d341-91190009-011f11d1-14876326@10.1.203.103</callid>
    <localtag>107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391</localtag>
    <remotetag>1c17d341911900115f6d4fa8-3fd36ccf</remotetag>
  </dialogid>
  <tonetype>DtOutsideDialTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

```
</x-cisco-remotecc-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SUBSCRIBE sip:7004@10.1.203.103:52604 SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK55519fa6ef
From: <sip:8@10.81.54.134>;tag=234669983
To: <sip:7004@10.1.203.103>
Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
CSeq: 101 SUBSCRIBE
Date: Wed, 17 Nov 2010 18:17:59 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml; call-id=1c17d341-91190009-011f11d1-14876326@10.1.203.103; from-tag=1c17d341911900115f6d4fa8-3fd36ccf
Expires: 7200
Contact: <sip:8@10.81.54.134:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 424
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern criticaldigittimer="1000" extradigittimer="500" interdigittimer="15000" persist="persist">
    <regex tag="Backspace OK">[x#*+]|bs</regex>
  </pattern>

</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK544a6706ba
From: <sip:7004@10.81.54.134>;tag=672659600
```

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To: <sip:7004@10.1.203.103>;tag=1c17d34191190013255ebe10-789f8a67
 Call-ID: 9a6b00-ce411c57-22-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 18:17:58 GMT
 CSeq: 101 REFER
 Server: Cisco-CP9971/9.1.1
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK55519fa6ef
 From: <sip:8@10.81.54.134>;tag=234669983
 To: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43ffffecb
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 18:17:58 GMT
 CSeq: 101 SUBSCRIBE
 Server: Cisco-CP9971/9.1.1
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Expires: 7200
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK192ae86f
 To: <sip:8@10.81.54.134>;tag=234669983
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43ffffecb
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 18:17:58 GMT
 CSeq: 1000 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK192ae86f
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43ffffecb
 To: <sip:8@10.81.54.134>;tag=234669983
 Date: Wed, 17 Nov 2010 18:17:59 GMT
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 CSeq: 1000 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK406566bd
 To: <sip:8@10.81.54.134>;tag=234669983
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43ffffecb
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 18:17:58 GMT
 CSeq: 1001 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK406566bd
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43ffffecb
 To: <sip:8@10.81.54.134>;tag=234669983
 Date: Wed, 17 Nov 2010 18:18:00 GMT
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 CSeq: 1001 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] REFER sip:7004@10.1.203.103:52604 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK56116f1124

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```

From: <sip:7004@10.81.54.134>;tag=1777986764
To: <sip:7004@10.1.203.103>
Call-ID: 1330180-ce411c58-24-8636510a@10.81.54.134
CSeq: 101 REFER
Max-Forwards: 70
Contact: <sip:7004@10.81.54.134:5060;transport=tcp>
User-Agent: Cisco-CUCM8.5
Expires: 0
Refer-To: cid:1234567890@10.81.54.134
Content-Id: <1234567890@10.81.54.134>
Require: nofersub
Content-Type: application/x-cisco-remotecc-request+xml
Referred-By: <sip:7004@10.81.54.134>
Content-Length: 405

```

```
<x-cisco-remotecc-request>
```

```

<playtonereq>
  <dialogid>
    <callid>1c17d341-91190009-011f11d1-14876326@10.1.203.103</callid>
    <localtag>107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391</localtag>
    <remotetag>1c17d341911900115f6d4fa8-3fd36ccf</remotetag>
  </dialogid>
  <tonetype>Dt_NoTone</tonetype>
  <direction>user</direction>
</playtonereq>

```

```
</x-cisco-remotecc-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK56116f1124
From: <sip:7004@10.81.54.134>;tag=1777986764
To: <sip:7004@10.1.203.103>;tag=1c17d341911900151629fae6-03131ca0
Call-ID: 1330180-ce411c58-24-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 18:17:58 GMT
CSeq: 101 REFER
Server: Cisco-CP9971/9.1.1
Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK51e9066f
To: <sip:8@10.81.54.134>;tag=234669983
From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 18:17:59 GMT
CSeq: 1002 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required

```

```

<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK51e9066f
From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
To: <sip:8@10.81.54.134>;tag=234669983
Date: Wed, 17 Nov 2010 18:18:00 GMT
Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
CSeq: 1002 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK3d2e8d3b
To: <sip:8@10.81.54.134>;tag=234669983
From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 18:18:00 GMT

```


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CSeq: 1003 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="0" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK3d2e8d3b
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
 To: <sip:8@10.81.54.134>;tag=234669983
 Date: Wed, 17 Nov 2010 18:18:01 GMT
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 CSeq: 1003 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK1421b2cd
 To: <sip:8@10.81.54.134>;tag=234669983
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 18:18:00 GMT
 CSeq: 1004 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK1421b2cd
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
 To: <sip:8@10.81.54.134>;tag=234669983
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 CSeq: 1004 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK63935e52
 To: <sip:8@10.81.54.134>;tag=234669983
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 18:18:01 GMT
 CSeq: 1005 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="7" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK63935e52
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb

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To: <sip:8@10.81.54.134>;tag=234669983
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 CSeq: 1005 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[23] SUBSCRIBE sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK572900aecc
 From: <sip:8@10.81.54.134>;tag=234669983
 To: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43ffffecb
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 CSeq: 102 SUBSCRIBE
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=1c17d341-91190009-011f11d1-14876326@10.1.203.103; from-tag=1c17d341911900115f6d4fa8-3fd36ccf
 Expires: 0
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[24] INVITE sip:1017@10.1.197.55:5060 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK58230761b2
 From: <sip:7004@10.81.54.134>;tag=111~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230392
 To: <sip:1017@10.1.197.55>
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 2642e80-ce411c5a-25-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0040119936-0000065536-0000000010-2251706634
 Session-Expires: 1800
 P-Asserted-Identity: <sip:7004@10.81.54.134>
 Remote-Party-ID: <sip:7004@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7004@10.81.54.134:5060;transport=tcp>;video;audio
 Max-Forwards: 69
 Content-Type: application/sdp
 Content-Length: 723

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
s=SIP Call
c=IN IP4 10.1.203.103
b=TIAS:384000
t=0 0
m=audio 29052 RTP/AVP 9 124 0 8 116 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:124 iSAC/16000
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:116 iLBC/8000
a=ptime:20
a=maxptime:20
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 20310 RTP/AVP 126 97
b=TIAS:384000
a=rtpmap:126 H264/90000
a=fmtp:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1
a=rtpmap:97 H264/90000
a=fmtp:97 profile-level-id=42801E;packetization-mode=0;level-asymmetry-allowed=1
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[25] SIP/2.0 100 Trying

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Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK58230761b2
 From: <sip:7004@10.81.54.134>;tag=111-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230392
 To: <sip:1017@10.1.197.55>
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 2642e80-ce411c5a-25-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK572900aeecc
 From: <sip:8@10.81.54.134>;tag=234669983
 To: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 18:18:01 GMT
 CSeq: 102 SUBSCRIBE
 Server: Cisco-CP9971/9.1.1
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK0bfe5fa0
 To: <sip:8@10.81.54.134>;tag=234669983
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 18:18:01 GMT
 CSeq: 1006 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 222
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK0bfe5fa0
 From: <sip:7004@10.1.203.103>;tag=1c17d341911900143d2fd348-43fffecb
 To: <sip:8@10.81.54.134>;tag=234669983
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 9a6b00-ce411c57-23-8636510a@10.81.54.134
 CSeq: 1006 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK58230761b2
 From: <sip:7004@10.81.54.134>;tag=111-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230392
 To: <sip:1017@10.1.197.55>;tag=32-e8eb181c-e5c7-4bb9-a774-8ae601f45812-26242919
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 2642e80-ce411c5a-25-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1017@10.1.197.55>
 Remote-Party-ID: <sip:1017@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1017@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK661d0c36
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 To: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 Date: Wed, 17 Nov 2010 18:17:59 GMT
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence

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Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1010; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1017@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK58230761b2
 From: <sip:7004@10.81.54.134>;tag=111~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230392
 To: <sip:1017@10.1.197.55>;tag=32~e8eb181c-e5c7-4bb9-a774-8ae601f45812-26242919
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 2642e80-ce411c5a-25-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1017@10.1.197.55>
 Remote-Party-ID: <sip:1017@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1017@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 365

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.203.162
 t=0 0
 m=audio 17856 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 m=video 31612 RTP/AVP 126
 b=TIAS:320000
 a=rtpmap:126 H264/90000
 a=fmtp:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK58230761b2
 From: <sip:7004@10.81.54.134>;tag=111~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230392
 To: <sip:1017@10.1.197.55>;tag=32~e8eb181c-e5c7-4bb9-a774-8ae601f45812-26242919
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 2642e80-ce411c5a-25-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1017@10.1.197.55>
 Remote-Party-ID: <sip:1017@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1017@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 365

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.203.162
 t=0 0
 m=audio 17856 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 m=video 31612 RTP/AVP 126
 b=TIAS:320000
 a=rtpmap:126 H264/90000
 a=fmtp:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[33] ACK sip:1017@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK59721b6a8f
 From: <sip:7004@10.81.54.134>;tag=111~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230392

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To: <sip:1017@10.1.197.55>;tag=32-e8eb181c-e5c7-4bb9-a774-8ae601f45812-26242919
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 2642e80-ce411c5a-25-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[34] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK661d0c36
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 To: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 Date: Wed, 17 Nov 2010 18:17:59 GMT
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1010; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1017@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 364

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.203.162
 t=0 0
 m=audio 17856 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 m=video 31612 RTP/AVP 126
 b=TIAS:320000
 a=rtpmap:126 H264/90000
 a=fmtp:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[35] UPDATE sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK5a2d68e7a4
 From: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 To: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 Date: Wed, 17 Nov 2010 18:17:59 GMT
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 UPDATE
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1010; call-instance= 1
 Remote-Party-ID: <sip:1017@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7004@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[36] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK661d0c36
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 To: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 Date: Wed, 17 Nov 2010 18:17:59 GMT
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1010; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1017@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 364

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134

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```
s=SIP Call
c=IN IP4 10.1.203.162
t=0 0
m=audio 17856 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 31612 RTP/AVP 126
b=TIAS:320000
a=rtpmap:126 H264/90000
a=fmtp:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[37] SUBSCRIBE sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK5bbb96b46

From: <sip:8@10.81.54.134;user=phone>;tag=107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391

To: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf

Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103

CSeq: 102 SUBSCRIBE

Date: Wed, 17 Nov 2010 18:18:07 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 7200

Contact: <sip:10.81.54.134:5060;transport=tcp>

Accept: application/kpml-response+xml

Max-Forwards: 70

Content-Type: application/kpml-request+xml

Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[38] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK5a2d68e7a4

From: <sip:8@10.81.54.134;user=phone>;tag=107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391

To: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf

Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103

Date: Wed, 17 Nov 2010 18:18:06 GMT

CSeq: 101 UPDATE

Server: Cisco-CP9971/9.1.1

Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=tcp>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[39] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK04e1719a

From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf

To: <sip:8@10.81.54.134;user=phone>;tag=107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391

Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103

Max-Forwards: 70

Date: Wed, 17 Nov 2010 18:18:06 GMT

CSeq: 101 ACK

User-Agent: Cisco-CP9971/9.1.1

Remote-Party-ID: "7004" <sip:7004@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[40] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK5bbb96b46

From: <sip:8@10.81.54.134;user=phone>;tag=107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391

To: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf

Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103

Date: Wed, 17 Nov 2010 18:18:06 GMT

CSeq: 102 SUBSCRIBE

Server: Cisco-CP9971/9.1.1

Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>

Expires: 7200

Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[41] NOTIFY sip:10.81.54.134:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK3aed2688
 To: <sip:8@10.81.54.134;user=phone>;tag=107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 Date: Wed, 17 Nov 2010 18:18:06 GMT
 CSeq: 102 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[42] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK3aed2688
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 To: <sip:8@10.81.54.134;user=phone>;tag=107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 Date: Wed, 17 Nov 2010 18:18:07 GMT
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[43] NOTIFY sip:7004@10.81.54.134 SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK5d9830b8
 To: <sip:7004@10.81.54.134>
 From: <sip:7004@10.81.54.134>;tag=1c17d341911900165b7e4c8b-380599df
 Call-ID: 2e3b3cb8-55d48b89@10.1.203.103
 Date: Wed, 17 Nov 2010 18:18:33 GMT
 CSeq: 4 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 361
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="3"
state="partial" entity="sip:7004@10.1.203.103">
<dialog id="2" call-id="1c17d341-91190009-011f11d1-14876326@10.1.203.103" local-
tag="1c17d341911900115f6d4fa8-3fd36ccf"><state>terminated</state></dialog>
</dialog-info>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[44] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK5d9830b8
 From: <sip:7004@10.81.54.134>;tag=1c17d341911900165b7e4c8b-380599df
 To: <sip:7004@10.81.54.134>;tag=1230320358
 Date: Wed, 17 Nov 2010 18:18:34 GMT
 Call-ID: 2e3b3cb8-55d48b89@10.1.203.103
 CSeq: 4 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[45] BYE sip:8@10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK3924abb0
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 To: <sip:8@10.81.54.134;user=phone>;tag=107~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 18:18:33 GMT
 CSeq: 103 BYE
 User-Agent: Cisco-CP9971/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[46] BYE sip:1017@10.1.197.55:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK5c6bf76a9e
 From: <sip:7004@10.81.54.134>;tag=111~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230392
 To: <sip:1017@10.1.197.55>;tag=32~e8eb181c-e5c7-4bb9-a774-8ae601f45812-26242919
 Date: Wed, 17 Nov 2010 18:18:02 GMT
 Call-ID: 2642e80-ce411c5a-25-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70

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P-Asserted-Identity: <sip:7004@10.81.54.134>
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[47] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK3924abb0
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 To: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 Date: Wed, 17 Nov 2010 18:18:34 GMT
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[48] SUBSCRIBE sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK5ded8ea86
 From: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 To: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 CSeq: 103 SUBSCRIBE
 Date: Wed, 17 Nov 2010 18:18:34 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[49] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK5c6bf76a9e
 From: <sip:7004@10.81.54.134>;tag=111-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230392
 To: <sip:1017@10.1.197.55>;tag=32-e8eb181c-e5c7-4bb9-a774-8ae601f45812-26242919
 Date: Wed, 17 Nov 2010 18:18:34 GMT
 Call-ID: 2642e80-ce411c5a-25-8636510a@10.81.54.134
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[50] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK5ded8ea86
 From: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 To: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 Date: Wed, 17 Nov 2010 18:18:33 GMT
 CSeq: 103 SUBSCRIBE
 Server: Cisco-CP9971/9.1.1
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[51] NOTIFY sip:10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK42c29fde
 To: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103
 Date: Wed, 17 Nov 2010 18:18:33 GMT
 CSeq: 104 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:e99230c6-7de2-b448-2e31-efd544b8b652@10.1.203.103:52604;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 214
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[52] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.103:52604;branch=z9hG4bK42c29fde
 From: "7004" <sip:7004@10.81.54.134>;tag=1c17d341911900115f6d4fa8-3fd36ccf
 To: <sip:8@10.81.54.134;user=phone>;tag=107-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230391
 Date: Wed, 17 Nov 2010 18:18:35 GMT
 Call-ID: 1c17d341-91190009-011f11d1-14876326@10.1.203.103

CSeq: 104 NOTIFY
Content-Length: 0

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CISCO CONFIDENTIAL**28.7 Attended Transfer for a call between SIP phone and a SCCP TNP Device**

Title: Attended Transfer for a call between SIP phone and a SCCP TNP Device

Description:

Attended Transfer for a call between SIP phone and a SCCP TNP Device across an Early Offer enabled Inter Cluster SIP Trunk

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.81.54.134

Node = Unified CM2, IP = 10.1.197.55

Phone = A, Line = 7001, IP = 10.1.203.140, Model = SIP

Phone = B, Line = 1016, IP = 10.1.193.101, Model = SCCP

Phone = C, Line = 1007, IP = 10.1.201.190, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 88.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Send send-recvd SDP in mid-call

Scenario:

Phone A DN 7001 calls Phone B DN 1016 over the SIP Trunk by dialing 881016

Phone B DN 1016 Answers

Phone A DN 7001 presses Transfer

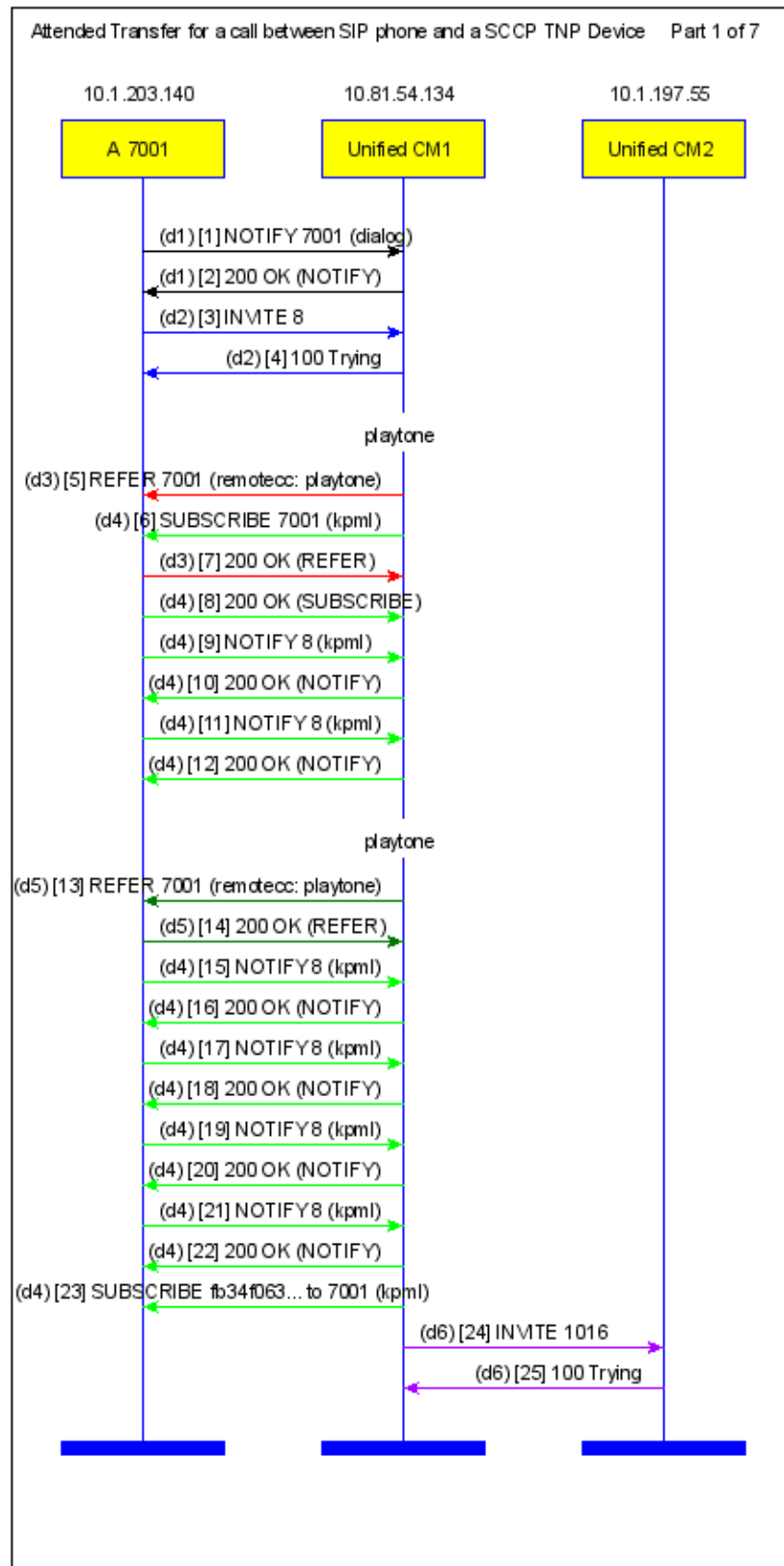
Phone A DN 7001 calls Phone C DN 1007 over the SIP Trunk by dialing 881007

Phone C DN 1007 Answers

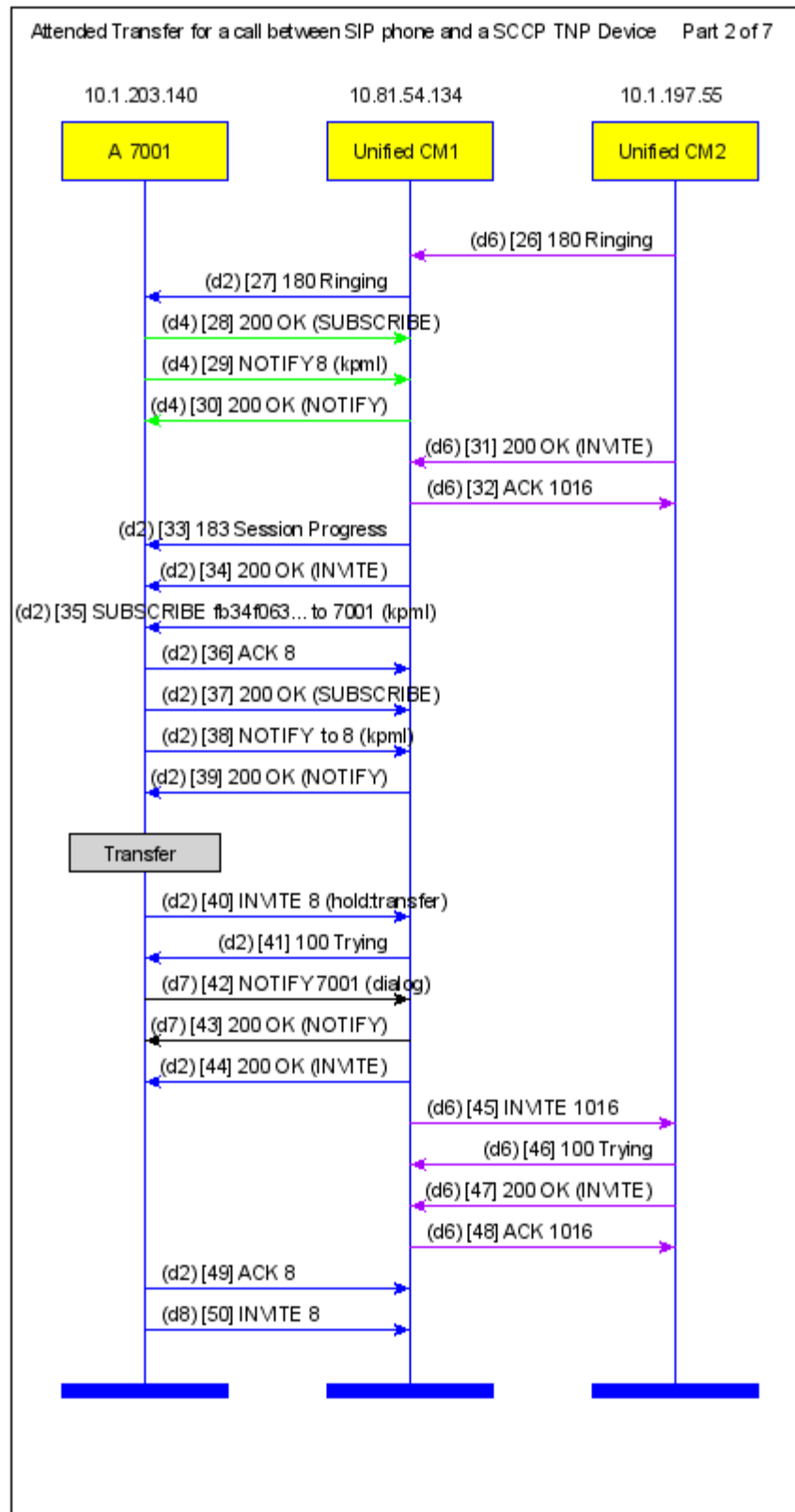
Phone A DN 7001 presses Transfer

End of Scenario

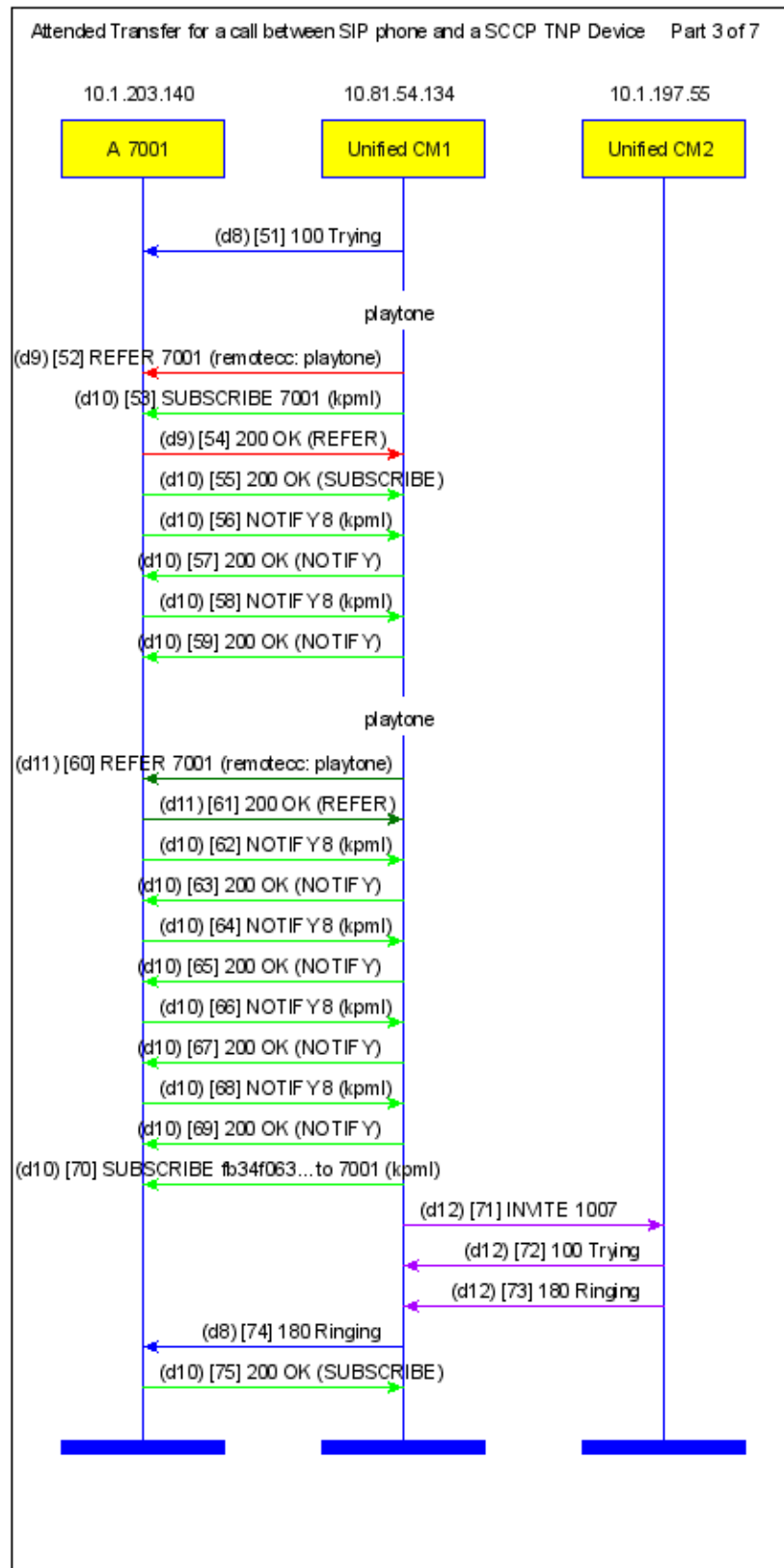
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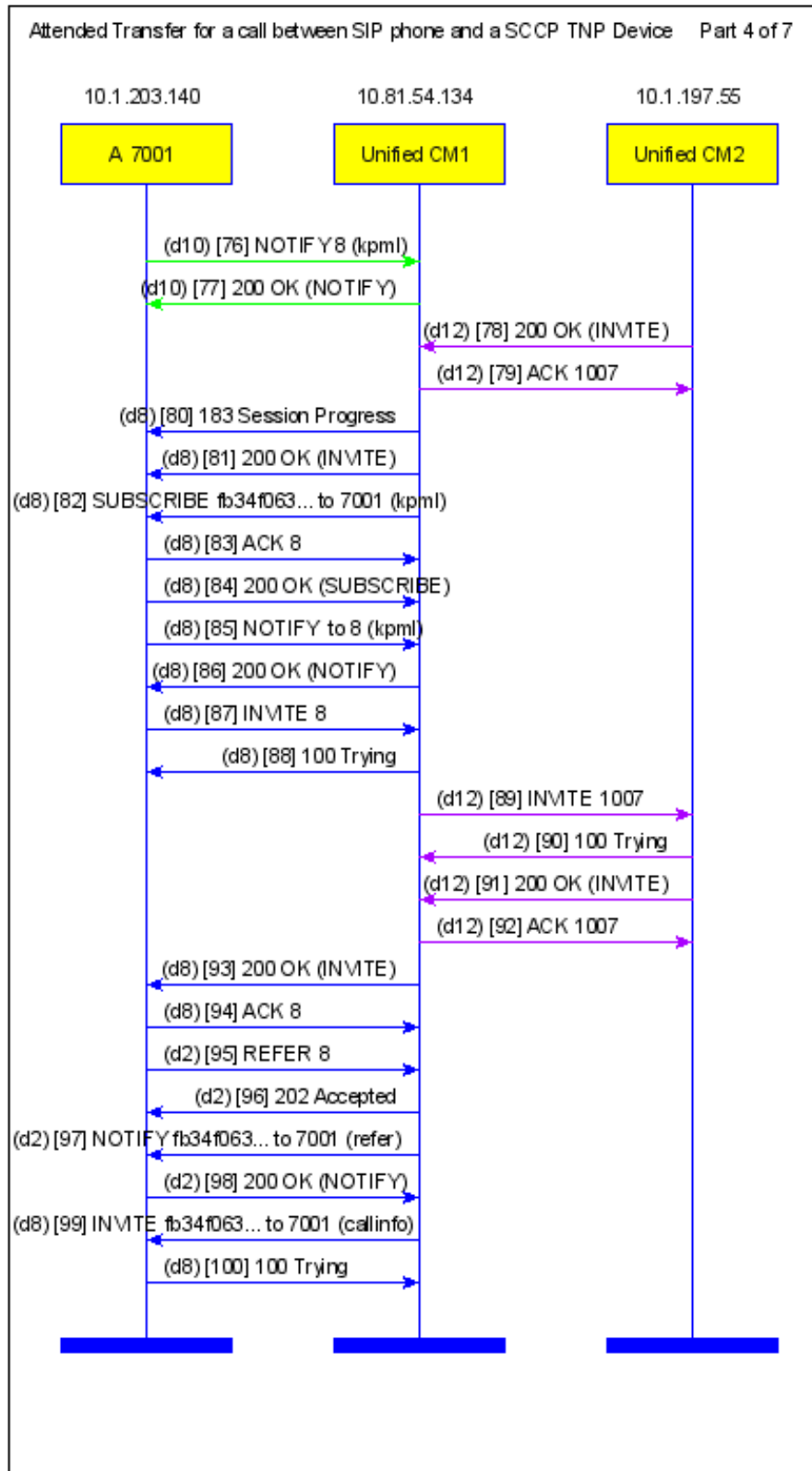
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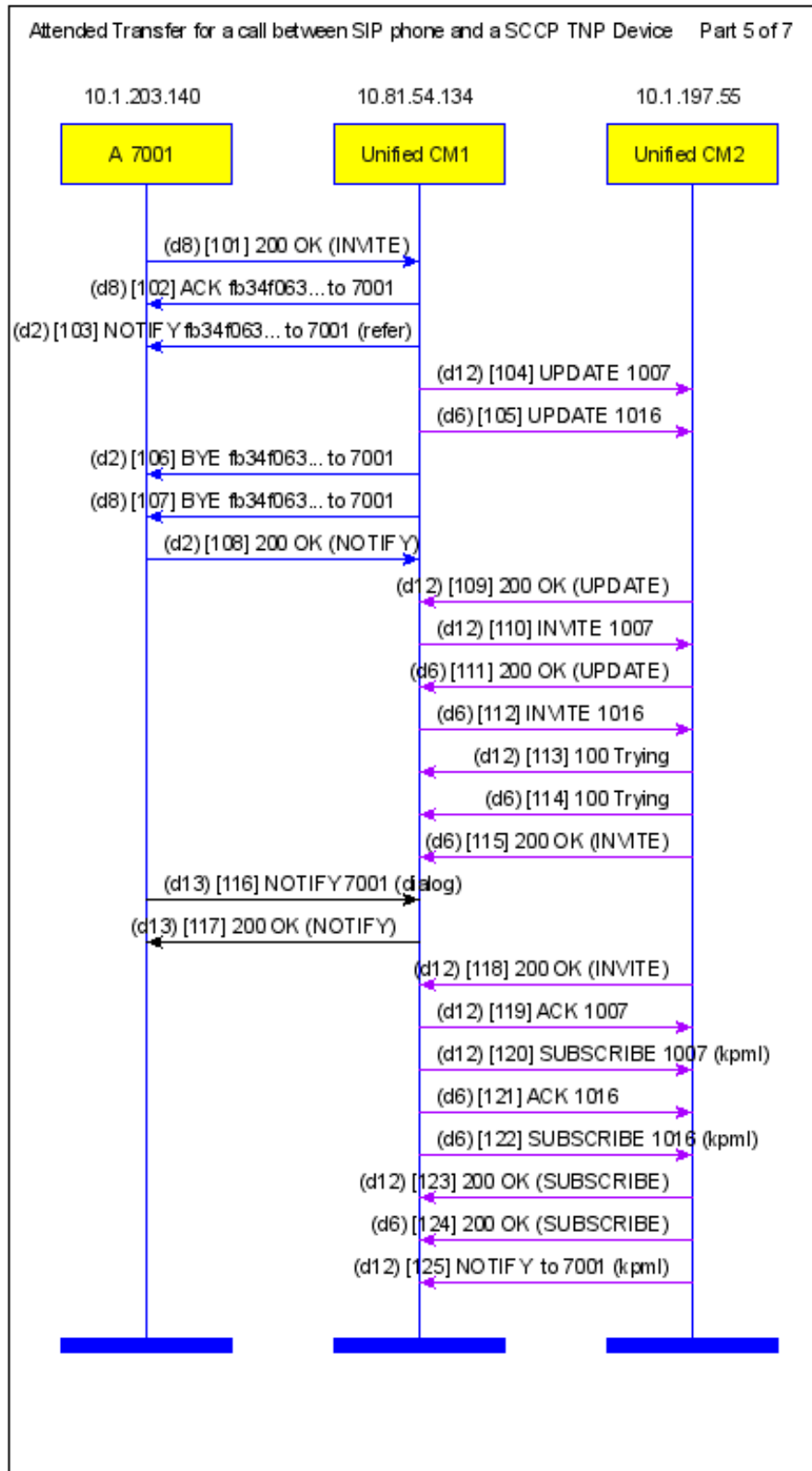
CISCO CONFIDENTIAL



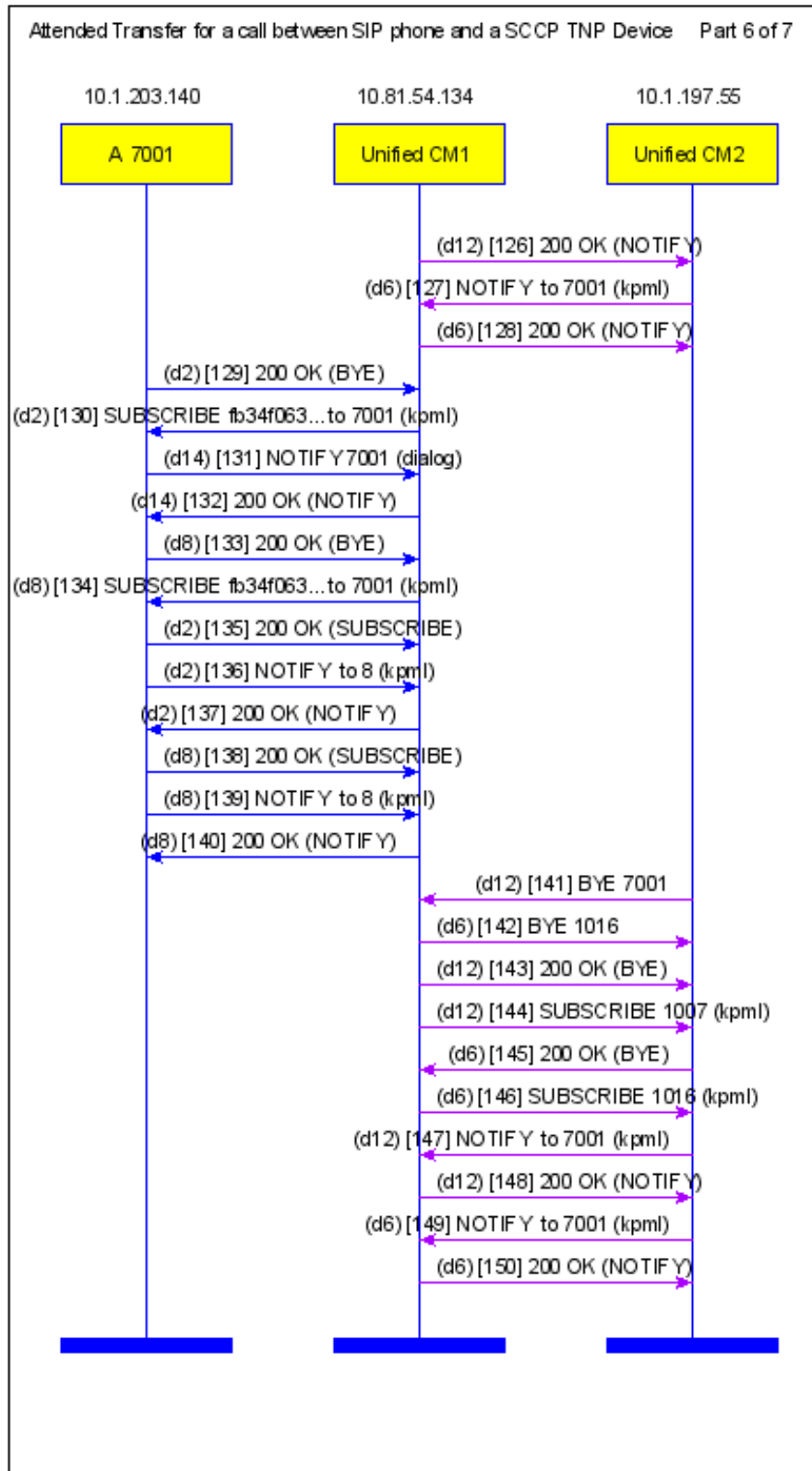
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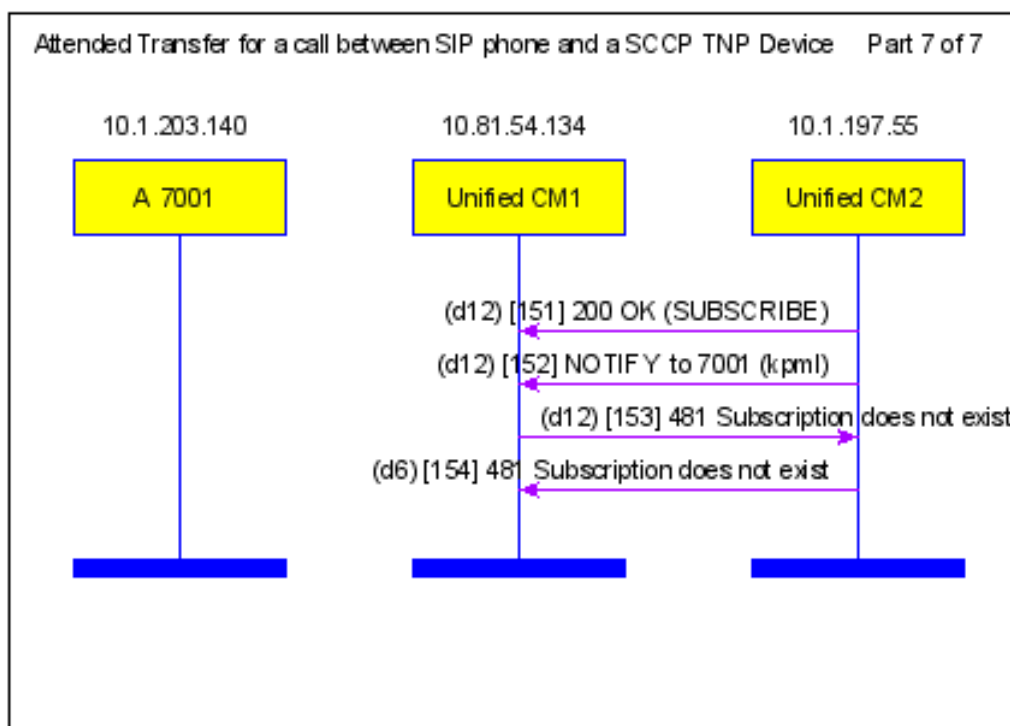


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[diagram] Call-ID: [prev] [next]

[1] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK513de4dc

To: <sip:7001@10.81.54.134>

From: <sip:7001@10.81.54.134>;tag=00141c807e4a028d70139426-f2153e53

Call-ID: ab424d80-49f54fd1@10.1.203.140

Date: Wed, 17 Nov 2010 17:57:00 GMT

CSeq: 7 NOTIFY

Event: dialog

Subscription-State: active

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 357

Content-Type: application/dialog-info+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8" ?>

<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="4" state="partial" entity="sip:7001@10.1.203.140">

<dialog id="7" call-id="00141c80-7e4a0009-8f47a737-91153468@10.1.203.140" local-tag="00141c807e4a028c237a7d55-82d7b312"><state>trying</state></dialog>

</dialog-info>

[diagram] Call-ID: [prev] [next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK513de4dc

From: <sip:7001@10.81.54.134>;tag=00141c807e4a028d70139426-f2153e53

To: <sip:7001@10.81.54.134>;tag=2013579786

Date: Wed, 17 Nov 2010 17:57:08 GMT

Call-ID: ab424d80-49f54fd1@10.1.203.140

CSeq: 7 NOTIFY

Content-Length: 0

[diagram] Call-ID: [prev] [next]

[3] INVITE sip:8@10.81.54.134;user=phone SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0605882a

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312

To: <sip:8@10.81.54.134;user=phone>

Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140

Max-Forwards: 70

Date: Wed, 17 Nov 2010 17:57:01 GMT

CSeq: 101 INVITE

User-Agent: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>

Expires: 180

Accept: application/sdp

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO

Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes

Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1

Allow-Events: kpml, dialog

Content-Length: 331

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 5048 0 IN IP4 10.1.203.140

s=SIP Call

t=0 0

m=audio 22236 RTP/AVP 0 8 18 102 9 101

c=IN IP4 10.1.203.140

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:102 L16/16000

a=rtpmap:9 G722/8000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

[diagram] Call-ID: [prev] [next]

[4] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0605882a

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312

To: <sip:8@10.81.54.134;user=phone>

Date: Wed, 17 Nov 2010 17:57:09 GMT

Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140

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CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[5] REFER sip:7001@10.1.203.140:49538 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK20223f4609
 From: <sip:7001@10.81.54.134>;tag=281833224
 To: <sip:7001@10.1.203.140>
 Call-ID: 178b8e00-ce411775-d-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub
 Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 412

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a0009-8f47a737-91153468@10.1.203.140</callid>
    <localtag>46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381</localtag>
    <remotetag>00141c807e4a028c237a7d55-82d7b312</remotetag>
  </dialogid>
  <tonetype>DtOutsideDialTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[6] SUBSCRIBE sip:7001@10.1.203.140:49538 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK212a3ab662
 From: <sip:8@10.81.54.134>;tag=1989877906
 To: <sip:7001@10.1.203.140>
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 CSeq: 101 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:57:09 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a0009-8f47a737-91153468@10.1.203.140; from-tag=00141c807e4a028c237a7d55-82d7b312
 Expires: 7200
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 424

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern criticaldigittimer="1000" extradigittimer="500" interdigittimer="15000" persist="persist">
    <regex tag="Backspace OK">[x#*+]|bs</regex>
  </pattern>

</kpml-request>
```

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK20223f4609
 From: <sip:7001@10.81.54.134>;tag=281833224
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a028eb4069d54-997b5ead
 Call-ID: 178b8e00-ce411775-d-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:01 GMT
 CSeq: 101 REFER
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[8] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK212a3ab662

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From: <sip:8@10.81.54.134>;tag=1989877906
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:01 GMT
 CSeq: 101 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK9bd8a5c9
 To: <sip:8@10.81.54.134>;tag=1989877906
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:01 GMT
 CSeq: 1000 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK9bd8a5c9
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 To: <sip:8@10.81.54.134>;tag=1989877906
 Date: Wed, 17 Nov 2010 17:57:09 GMT
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 CSeq: 1000 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0310ac78
 To: <sip:8@10.81.54.134>;tag=1989877906
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:01 GMT
 CSeq: 1001 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0310ac78
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 To: <sip:8@10.81.54.134>;tag=1989877906
 Date: Wed, 17 Nov 2010 17:57:09 GMT
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 CSeq: 1001 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] REFER sip:7001@10.1.203.140:49538 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK225201fd12
 From: <sip:7001@10.81.54.134>;tag=1858117354
 To: <sip:7001@10.1.203.140>
 Call-ID: 178b8e00-ce411775-f-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub

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Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 404

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a0009-8f47a737-91153468@10.1.203.140</callid>
    <localtag>46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381</localtag>
    <remotetag>00141c807e4a028c237a7d55-82d7b312</remotetag>
  </dialogid>
  <tonetype>Dt_NoTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK225201fd12
 From: <sip:7001@10.81.54.134>;tag=1858117354
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a0290867ac722-9c5e87e7
 Call-ID: 178b8e00-ce411775-f-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:01 GMT
 CSeq: 101 REFER
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKf2176505
 To: <sip:8@10.81.54.134>;tag=1989877906
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:02 GMT
 CSeq: 1002 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
  suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKf2176505
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 To: <sip:8@10.81.54.134>;tag=1989877906
 Date: Wed, 17 Nov 2010 17:57:10 GMT
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 CSeq: 1002 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK38b389ec
 To: <sip:8@10.81.54.134>;tag=1989877906
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:02 GMT
 CSeq: 1003 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
```

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```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="0" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK38b389ec
From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
To: <sip:8@10.81.54.134>;tag=1989877906
Date: Wed, 17 Nov 2010 17:57:10 GMT
Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
CSeq: 1003 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKd3d74203
To: <sip:8@10.81.54.134>;tag=1989877906
From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:03 GMT
CSeq: 1004 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKd3d74203
From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
To: <sip:8@10.81.54.134>;tag=1989877906
Date: Wed, 17 Nov 2010 17:57:11 GMT
Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
CSeq: 1004 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK393ea636
To: <sip:8@10.81.54.134>;tag=1989877906
From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:03 GMT
CSeq: 1005 NOTIFY
Event: kpml
Subscription-State: active; expires=7195
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="6" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK393ea636
From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
To: <sip:8@10.81.54.134>;tag=1989877906
Date: Wed, 17 Nov 2010 17:57:11 GMT
Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
CSeq: 1005 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2366fda748
From: <sip:8@10.81.54.134>;tag=1989877906
To: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
```

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Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 CSeq: 102 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:57:11 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a0009-8f47a737-91153468@10.1.203.140; from-tag=00141c807e4a028c237a7d55-82d7b312
 Expires: 0
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[24] INVITE sip:1016@10.1.197.55:5060 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK241bf45bd0
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>
 Date: Wed, 17 Nov 2010 17:57:11 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0415021824-0000065536-0000000006-2251706634
 Session-Expires: 1800
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 69
 Content-Type: application/sdp
 Content-Length: 359

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.203.140
 b=TIAS:64000
 t=0 0
 m=audio 22236 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[25] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK241bf45bd0
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>
 Date: Wed, 17 Nov 2010 17:57:11 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[26] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK241bf45bd0
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:11 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@10.1.197.55>

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Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0605882a
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Date: Wed, 17 Nov 2010 17:57:09 GMT
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecallinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1006; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2366fda748
 From: <sip:8@10.81.54.134>;tag=1989877906
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:03 GMT
 CSeq: 102 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK193dfa81
 To: <sip:8@10.81.54.134>;tag=1989877906
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:03 GMT
 CSeq: 1006 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 222
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK193dfa81
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a028fa2578e9e-0e906c4b
 To: <sip:8@10.81.54.134>;tag=1989877906
 Date: Wed, 17 Nov 2010 17:57:11 GMT
 Call-ID: 178b8e00-ce411775-e-8636510a@10.81.54.134
 CSeq: 1006 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK241bf45bd0
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:11 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer

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P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 215

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 31422 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] ACK sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2547c2c1af
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:11 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[33] SIP/2.0 183 Session Progress
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0605882a
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Date: Wed, 17 Nov 2010 17:57:09 GMT
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1006; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 31422 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[34] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0605882a
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Date: Wed, 17 Nov 2010 17:57:09 GMT
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1006; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call

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```
c=IN IP4 10.1.193.101
t=0 0
m=audio 31422 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[35] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK263bb1d6d9
From: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
CSeq: 101 SUBSCRIBE
Date: Wed, 17 Nov 2010 17:57:17 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.81.54.134:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>

</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[36] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK81558d90
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
To: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
Max-Forwards: 70
Date: Wed, 17 Nov 2010 17:57:09 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7970G/9.1.1
Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[37] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK263bb1d6d9
From: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
Date: Wed, 17 Nov 2010 17:57:09 GMT
CSeq: 101 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[38] NOTIFY sip:10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK8cc7fc3f
To: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
Date: Wed, 17 Nov 2010 17:57:09 GMT
CSeq: 102 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[39] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK8cc7fc3f
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
```

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To: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Date: Wed, 17 Nov 2010 17:57:17 GMT
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 102 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[40] INVITE sip:8@10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKc0697638
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:15 GMT
 CSeq: 103 INVITE
 User-Agent: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>
 Accept: application/sdp
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Call-Info: <urn:x-cisco-remotecc:hold>; reason= transfer
 Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1
 Allow-Events: kpml,dialog
 Content-Length: 331
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 5048 1 IN IP4 10.1.203.140
 s=SIP Call
 t=0 0
 m=audio 22236 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.1.203.140
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendonly

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[41] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKc0697638
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Date: Wed, 17 Nov 2010 17:57:23 GMT
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 103 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[42] NOTIFY sip:7001@10.81.54.134 SIP/2.0
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKd58cfaa1
 To: <sip:7001@10.81.54.134>
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a0292355dfd77-ad3b4bf2
 Call-ID: 57899dfd-aa9be2d0@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:15 GMT
 CSeq: 8 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 590
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="5"
state="partial" entity="sip:7001@10.1.203.140">
<dialog id="8" call-id="00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140" local-
tag="00141c807e4a0291a435e14c-8f3013db"><state>trying</state><call:primary call-id="00141c80-7e4a0009-
8f47a737-91153468@10.1.203.140" local-tag="00141c807e4a028c237a7d55-82d7b312" remote-tag="46-d138edfe-79fb-
4db2-9d4a-3737bda378a5-26230381"><hold-reason>transfer</hold-reason></call:primary></dialog>
```

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</dialog-info>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[43] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKd58cfaa1
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a0292355dfd77-ad3b4bf2
 To: <sip:7001@10.81.54.134>;tag=1284841518
 Date: Wed, 17 Nov 2010 17:57:23 GMT
 Call-ID: 57899dfd-aa9be2d0@10.1.203.140
 CSeq: 8 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[44] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKc0697638
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Date: Wed, 17 Nov 2010 17:57:23 GMT
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1006; call-instance= 1
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 31422 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[45] INVITE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK272496bee1
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:23 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[46] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK272496bee1
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:23 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[47] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK272496bee1
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382

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To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:23 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 325

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 32108 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[48] ACK sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK285f4dcf33
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:23 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.81.54.134
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[49] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK95bb35c6
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:15 GMT
 CSeq: 103 ACK
 User-Agent: Cisco-CP7970G/9.1.1
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[50] INVITE sip:8@10.81.54.134;user=phone SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK81eabb44
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:17 GMT
 CSeq: 101 INVITE

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User-Agent: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>
 Expires: 180
 Accept: application/sdp
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1
 Allow-Events: kpml,dialog
 Content-Length: 332
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 27784 0 IN IP4 10.1.203.140
 s=SIP Call
 t=0 0
 m=audio 24388 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.1.203.140
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[51] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK81eabb44
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>
 Date: Wed, 17 Nov 2010 17:57:25 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[52] REFER sip:7001@10.1.203.140:49538 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK297cb71458
 From: <sip:7001@10.81.54.134>;tag=361881922
 To: <sip:7001@10.1.203.140>
 Call-ID: 2114f600-ce411785-11-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub
 Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 412

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140</callid>
    <localtag>54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383</localtag>
    <remotetag>00141c807e4a0291a435e14c-8f3013db</remotetag>
  </dialogid>
  <tonetype>DtOutsideDialTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[53] SUBSCRIBE sip:7001@10.1.203.140:49538 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2a7c14f83d
 From: <sip:8@10.81.54.134>;tag=1925303012
 To: <sip:7001@10.1.203.140>
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134

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```
CSeq: 101 SUBSCRIBE
Date: Wed, 17 Nov 2010 17:57:25 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml; call-id=00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140; from-tag=00141c807e4a0291a435e14c-8f3013db
Expires: 7200
Contact: <sip:8@10.81.54.134:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 424
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern criticaldigittimer="1000" extradigittimer="500" interdigittimer="15000" persist="persist">
    <regex tag="Backspace OK">[x#*+]|bs</regex>
  </pattern>

</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[54] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK297cb71458
From: <sip:7001@10.81.54.134>;tag=361881922
To: <sip:7001@10.1.203.140>;tag=00141c807e4a0293d70e7cea-c74a7c19
Call-ID: 2114f600-ce411785-11-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:17 GMT
CSeq: 101 REFER
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[55] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2a7c14f83d
From: <sip:8@10.81.54.134>;tag=1925303012
To: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:17 GMT
CSeq: 101 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[56] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKf3c85b55
To: <sip:8@10.81.54.134>;tag=1925303012
From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:17 GMT
CSeq: 1000 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[57] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKf3c85b55
From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
To: <sip:8@10.81.54.134>;tag=1925303012
Date: Wed, 17 Nov 2010 17:57:25 GMT
Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
CSeq: 1000 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[58] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK2732215e
To: <sip:8@10.81.54.134>;tag=1925303012
From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:17 GMT
CSeq: 1001 NOTIFY
```

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```

Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[59] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK2732215e
From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
To: <sip:8@10.81.54.134>;tag=1925303012
Date: Wed, 17 Nov 2010 17:57:25 GMT
Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
CSeq: 1001 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[60] REFER sip:7001@10.1.203.140:49538 SIP/2.0

```

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2b399cdb39
From: <sip:7001@10.81.54.134>;tag=501041559
To: <sip:7001@10.1.203.140>
Call-ID: 2114f600-ce411785-13-8636510a@10.81.54.134
CSeq: 101 REFER
Max-Forwards: 70
Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
User-Agent: Cisco-CUCM8.5
Expires: 0
Refer-To: cid:1234567890@10.81.54.134
Content-Id: <1234567890@10.81.54.134>
Require: norefersub
Content-Type: application/x-cisco-remotecc-request+xml
Referred-By: <sip:7001@10.81.54.134>
Content-Length: 404

```

```
<x-cisco-remotecc-request>
```

```

<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140</callid>
    <localtag>54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383</localtag>
    <remotetag>00141c807e4a0291a435e14c-8f3013db</remotetag>
  </dialogid>
  <tonetype>Dt_NoTone</tonetype>
  <direction>user</direction>
</playtonereq>

```

```
</x-cisco-remotecc-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[61] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2b399cdb39
From: <sip:7001@10.81.54.134>;tag=501041559
To: <sip:7001@10.1.203.140>;tag=00141c807e4a0295d2df53dc-94e5d10b
Call-ID: 2114f600-ce411785-13-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:17 GMT
CSeq: 101 REFER
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[62] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKbb1981d1
To: <sip:8@10.81.54.134>;tag=1925303012
From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:18 GMT
CSeq: 1002 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>

```


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Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
  suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[63] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKbb1981d1
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 To: <sip:8@10.81.54.134>;tag=1925303012
 Date: Wed, 17 Nov 2010 17:57:26 GMT
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 CSeq: 1002 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[64] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKdfc25b02
 To: <sip:8@10.81.54.134>;tag=1925303012
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:19 GMT
 CSeq: 1003 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7195
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
  suppressed="false" forced_flush="false" digits="0" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[65] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKdfc25b02
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 To: <sip:8@10.81.54.134>;tag=1925303012
 Date: Wed, 17 Nov 2010 17:57:27 GMT
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 CSeq: 1003 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[66] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK54d5f327
 To: <sip:8@10.81.54.134>;tag=1925303012
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:19 GMT
 CSeq: 1004 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7195
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
  suppressed="false" forced_flush="false" digits="0" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[67] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK54d5f327
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 To: <sip:8@10.81.54.134>;tag=1925303012
 Date: Wed, 17 Nov 2010 17:57:27 GMT
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 CSeq: 1004 NOTIFY
 Content-Length: 0

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[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[68] NOTIFY sip:8010.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK718ae6e0
 To: <sip:8010.81.54.134>;tag=1925303012
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:57:19 GMT
 CSeq: 1005 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7195
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="7" tag="Backspace OK"/>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[69] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK718ae6e0
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 To: <sip:8010.81.54.134>;tag=1925303012
 Date: Wed, 17 Nov 2010 17:57:27 GMT
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 CSeq: 1005 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[70] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2c55430a46
 From: <sip:8010.81.54.134>;tag=1925303012
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 CSeq: 102 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:57:27 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140; from-tag=00141c807e4a0291a435e14c-8f3013db
 Expires: 0
 Contact: <sip:8010.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[71] INVITE sip:1007@10.1.197.55:5060 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2d35f062fa
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>
 Date: Wed, 17 Nov 2010 17:57:27 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0575021824-0000065536-0000000007-2251706634
 Session-Expires: 1800
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 69
 Content-Type: application/sdp
 Content-Length: 359

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
s=SIP Call
c=IN IP4 10.1.203.140
b=TIAS:64000
t=0 0
```

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```
m=audio 24388 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[72] SIP/2.0 100 Trying

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2d35f062fa
From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
To: <sip:1007@10.1.197.55>
Date: Wed, 17 Nov 2010 17:57:27 GMT
Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[73] SIP/2.0 180 Ringing

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2d35f062fa
From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
Date: Wed, 17 Nov 2010 17:57:27 GMT
Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1007@10.1.197.55>
Remote-Party-ID: <sip:1007@10.1.197.55>;party=called;screen=yes;privacy=off
Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[74] SIP/2.0 180 Ringing

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK81eabb44
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
To: <sip:8@10.81.54.134;user=phone>;tag=54~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
Date: Wed, 17 Nov 2010 17:57:25 GMT
Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
gci= 1-1007; call-instance= 2
Send-Info: conference, x-cisco-conference
Remote-Party-ID: <sip:1007@10.81.54.134>;party=called;screen=yes;privacy=off
Contact: <sip:8@10.81.54.134:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[75] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2c55430a46
From: <sip:8@10.81.54.134>;tag=1925303012
To: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:20 GMT
CSeq: 102 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Expires: 0
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[76] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK2c6e9ead
To: <sip:8@10.81.54.134>;tag=1925303012
From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:57:20 GMT
CSeq: 1006 NOTIFY
Event: kpml
```

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Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 222
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[77] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK2c6e9ead
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a0294d0a086c8-35e473ef
 To: <sip:8@10.81.54.134>;tag=1925303012
 Date: Wed, 17 Nov 2010 17:57:28 GMT
 Call-ID: 2114f600-ce411785-12-8636510a@10.81.54.134
 CSeq: 1006 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[78] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2d35f062fa
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:27 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1007@10.1.197.55>
 Remote-Party-ID: <sip:1007@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 215

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.197.55
s=SIP Call
c=IN IP4 10.1.201.190
t=0 0
m=audio 23994 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[79] ACK sip:1007@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2e6d2dec0
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:27 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[80] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK81eabb44
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>;tag=54~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 Date: Wed, 17 Nov 2010 17:57:25 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1007; call-instance= 2
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1007@10.81.54.134>;party=called;screen=yes;privacy=off

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Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.201.190
 t=0 0
 m=audio 23994 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[81] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK81eabb44
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 Date: Wed, 17 Nov 2010 17:57:25 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1007; call-instance= 2
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1007@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.201.190
 t=0 0
 m=audio 23994 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[82] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2f38edfa1b
 From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 CSeq: 101 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:57:33 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[83] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK7192bed6
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:25 GMT

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CSeq: 101 ACK
 User-Agent: Cisco-CP7970G/9.1.1
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[84] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK2f38edfa1b
 From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:25 GMT
 CSeq: 101 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[85] NOTIFY sip:10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK36f66e63
 To: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:25 GMT
 CSeq: 102 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[86] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK36f66e63
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 Date: Wed, 17 Nov 2010 17:57:33 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[87] INVITE sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK5fc8b554
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:29 GMT
 CSeq: 103 INVITE
 User-Agent: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>
 Accept: application/sdp
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 332
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 27784 1 IN IP4 10.1.203.140
 s=SIP Call
 t=0 0
 m=audio 24388 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.1.203.140
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendonly

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[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[88] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK5fc8b554
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 Date: Wed, 17 Nov 2010 17:57:37 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 CSeq: 103 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[89] INVITE sip:1007@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK305d4cd0ee
 From: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 343

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.81.54.134
 t=0 0
 m=audio 24584 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[90] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK305d4cd0ee
 From: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[91] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK305d4cd0ee
 From: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer

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P-Asserted-Identity: <sip:1007@10.1.197.55>
 Remote-Party-ID: <sip:1007@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 215

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.201.190
 t=0 0
 m=audio 23994 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[92] ACK sip:1007@10.1.197.55:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK313523fa80
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[93] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK5fc8b554
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>;tag=54~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 Date: Wed, 17 Nov 2010 17:57:37 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1007; call-instance= 2
 Remote-Party-ID: <sip:1007@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 226

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.201.190
 t=0 0
 m=audio 23994 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=recvnly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[94] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKdd45d28e
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 To: <sip:8@10.81.54.134;user=phone>;tag=54~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:30 GMT
 CSeq: 103 ACK
 User-Agent: Cisco-CP7970G/9.1.1
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[95] REFER sip:8@10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK3b5f34dc
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:30 GMT

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CSeq: 104 REFER
 User-Agent: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Refer-To: <sip:881007@10.81.54.134?Replaces=00141c80-7e4a000a-2d5c45ce-81ee2925%4010.1.203.140%3Bto-tag%3D54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383%3Bfrom-tag%3D00141c807e4a0291a435e14c-8f3013db>
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[96] SIP/2.0 202 Accepted

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK3b5f34dc
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 To: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 104 REFER
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[97] NOTIFY sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK321795499d
 From: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: active;expires=60
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 20

SIP/2.0 100 Trying

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[98] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK321795499d
 From: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:30 GMT
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[99] INVITE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3341184a25
 From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1007; call-instance= 2
 Remote-Party-ID: <sip:1007@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 23994 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000

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a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[100] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3341184a25
 From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:30 GMT
 CSeq: 102 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
 Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1
 Allow-Events: kpml,dialog
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[101] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3341184a25
 From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:30 GMT
 CSeq: 102 INVITE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1
 Allow-Events: kpml,dialog
 Content-Length: 208
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 5270 2 IN IP4 10.1.203.140
 s=SIP Call
 t=0 0
 m=audio 24388 RTP/AVP 9 101
 c=IN IP4 10.1.203.140
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[102] ACK sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK34640169c0
 From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[103] NOTIFY sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK357997862e
 From: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: terminated;reason=noresource
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 16

SIP/2.0 200 OK

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Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3653f2aae2
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@10.81.54.134>
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[105] UPDATE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK37d159b0
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:23 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1007@10.81.54.134>
 Remote-Party-ID: <sip:1007@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[106] BYE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK381c88c4f9
 From: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[107] BYE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK39749ee556
 From: <sip:8@10.81.54.134;user=phone>;tag=54~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[108] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK357997862e
 From: <sip:8@10.81.54.134;user=phone>;tag=46~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:30 GMT
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[109] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3653f2aae2
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 103 UPDATE

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Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1007@10.1.197.55>
 Remote-Party-ID: <sip:1007@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[110] INVITE sip:1007@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3a1f010b6
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1016@10.81.54.134>
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[111] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK37d159b0
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 103 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[112] INVITE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3b24d184d2
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1007@10.81.54.134>
 Remote-Party-ID: <sip:1007@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[113] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3a1f010b6
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 104 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

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[114] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3b24d184d2
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 104 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

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[115] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3b24d184d2
 From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 269

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 17206 RTP/AVP 9 0 8 18
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20

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[116] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0fdc4164
 To: <sip:7001@10.81.54.134>
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a0296b996cc6c-8be551be
 Call-ID: 40409074-20ef0c46@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:30 GMT
 CSeq: 9 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 361
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="6"
state="partial" entity="sip:7001@10.1.203.140">
<dialog id="7" call-id="00141c80-7e4a0009-8f47a737-91153468@10.1.203.140" local-
tag="00141c807e4a028c237a7d55-82d7b312"><state>terminated</state></dialog>
</dialog-info>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[117] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK0fdc4164
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a0296b996cc6c-8be551be
 To: <sip:7001@10.81.54.134>;tag=429456984
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 40409074-20ef0c46@10.1.203.140
 CSeq: 9 NOTIFY

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[118] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3a1f010b6
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1007@10.1.197.55>
 Remote-Party-ID: <sip:1007@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 325

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.201.190
 t=0 0
 m=audio 24506 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[119] ACK sip:1007@10.1.197.55:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3c2d73bc2
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 104 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 158

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 17206 RTP/AVP 9
 a=rtpmap:9 G722/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[120] SUBSCRIBE sip:1007@10.1.197.55:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3d2b3014d1
 From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 105 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 7200
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 370

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```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[121] ACK sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3e9d86a6f
From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
Date: Wed, 17 Nov 2010 17:57:38 GMT
Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
Max-Forwards: 70
CSeq: 104 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 158
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.81.54.134
s=SIP Call
c=IN IP4 10.1.201.190
t=0 0
m=audio 24506 RTP/AVP 9
a=rtpmap:9 G722/8000
a=ptime:20
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[122] SUBSCRIBE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3f36b16ec6
From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
CSeq: 105 SUBSCRIBE
Date: Wed, 17 Nov 2010 17:57:38 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.81.54.134:5060;transport=tcp>
P-Asserted-Identity: <sip:7001@10.81.54.134>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[123] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3d2b3014d1
From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
Date: Wed, 17 Nov 2010 17:57:38 GMT
Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
CSeq: 105 SUBSCRIBE
Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[124] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK3f36b16ec6
From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
Date: Wed, 17 Nov 2010 17:57:38 GMT
Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
CSeq: 105 SUBSCRIBE
```

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Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[125] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK737f61785fa3
 From: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 To: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[126] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK737f61785fa3
 From: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 To: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[127] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK738033e03fbd
 From: <sip:1016@10.1.197.55>;tag=75467-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 To: <sip:7001@10.81.54.134>;tag=50-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[128] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK738033e03fbd
 From: <sip:1016@10.1.197.55>;tag=75467-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 To: <sip:7001@10.81.54.134>;tag=50-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[129] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK381c88c4f9
 From: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 Date: Wed, 17 Nov 2010 17:57:30 GMT
 CSeq: 104 BYE
 Server: Cisco-CP7970G/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[130] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK4050d2b392
 From: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
 Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
 CSeq: 105 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:57:38 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

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[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[131] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK6ad027ee

To: <sip:7001@10.81.54.134>

From: <sip:7001@10.81.54.134>;tag=00141c807e4a02971589dbf6-69369afc

Call-ID: f4fb0f1e-9d12e584@10.1.203.140

Date: Wed, 17 Nov 2010 17:57:30 GMT

CSeq: 10 NOTIFY

Event: dialog

Subscription-State: active

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 361

Content-Type: application/dialog-info+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8" ?>

<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="7" state="partial" entity="sip:7001@10.1.203.140">

<dialog id="8" call-id="00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140" local-tag="00141c807e4a0291a435e14c-8f3013db"><state>terminated</state></dialog>

</dialog-info>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[132] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK6ad027ee

From: <sip:7001@10.81.54.134>;tag=00141c807e4a02971589dbf6-69369afc

To: <sip:7001@10.81.54.134>;tag=2111631015

Date: Wed, 17 Nov 2010 17:57:38 GMT

Call-ID: f4fb0f1e-9d12e584@10.1.203.140

CSeq: 10 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[133] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK39749ee556

From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383

To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db

Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140

Date: Wed, 17 Nov 2010 17:57:30 GMT

CSeq: 103 BYE

Server: Cisco-CP7970G/9.1.1

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[134] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK417f0a3afe

From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383

To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db

Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140

CSeq: 104 SUBSCRIBE

Date: Wed, 17 Nov 2010 17:57:38 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 0

Contact: <sip:10.81.54.134:5060;transport=tcp>

Max-Forwards: 70

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[135] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK4050d2b392

From: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381

To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312

Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140

Date: Wed, 17 Nov 2010 17:57:31 GMT

CSeq: 105 SUBSCRIBE

Server: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>

Expires: 0

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[136] NOTIFY sip:10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK435dda8c

To: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312

Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140

Date: Wed, 17 Nov 2010 17:57:31 GMT

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```
CSeq: 105 NOTIFY
Event: kpml
Subscription-State: terminated; reason=timeout
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 214
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[137] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK435dda8c
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a028c237a7d55-82d7b312
To: <sip:8@10.81.54.134;user=phone>;tag=46-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230381
Date: Wed, 17 Nov 2010 17:57:39 GMT
Call-ID: 00141c80-7e4a0009-8f47a737-91153468@10.1.203.140
CSeq: 105 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[138] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK417f0a3afe
From: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
Date: Wed, 17 Nov 2010 17:57:31 GMT
CSeq: 104 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Expires: 0
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[139] NOTIFY sip:10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK843dfca6
To: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
Date: Wed, 17 Nov 2010 17:57:31 GMT
CSeq: 104 NOTIFY
Event: kpml
Subscription-State: terminated; reason=timeout
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 214
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[140] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK843dfca6
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0291a435e14c-8f3013db
To: <sip:8@10.81.54.134;user=phone>;tag=54-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230383
Date: Wed, 17 Nov 2010 17:57:39 GMT
Call-ID: 00141c80-7e4a000a-2d5c45ce-81ee2925@10.1.203.140
CSeq: 104 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[141] BYE sip:7001@10.81.54.134:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK73811cbf54ab
From: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
To: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
Date: Wed, 17 Nov 2010 17:57:38 GMT
Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 BYE
Reason: Q.850;cause=16
Content-Length: 0
```

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[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[142] BYE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK426f042cf1

From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382

To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589

Date: Wed, 17 Nov 2010 17:57:38 GMT

Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

P-Asserted-Identity: <sip:7001@10.81.54.134>

CSeq: 106 BYE

Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[143] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK73811cbf54ab

From: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591

To: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385

Date: Wed, 17 Nov 2010 17:57:55 GMT

Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134

CSeq: 102 BYE

Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[144] SUBSCRIBE sip:1007@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK43adb59e5

From: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385

To: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591

Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134

CSeq: 106 SUBSCRIBE

Date: Wed, 17 Nov 2010 17:57:55 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 0

Contact: <sip:10.81.54.134:5060;transport=tcp>

P-Asserted-Identity: <sip:7001@10.81.54.134>

Max-Forwards: 70

Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[145] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK426f042cf1

From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382

To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589

Date: Wed, 17 Nov 2010 17:57:55 GMT

Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134

CSeq: 106 BYE

Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[146] SUBSCRIBE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK4469c57761

From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382

To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589

Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134

CSeq: 107 SUBSCRIBE

Date: Wed, 17 Nov 2010 17:57:55 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 0

Contact: <sip:10.81.54.134:5060;transport=tcp>

P-Asserted-Identity: <sip:7001@10.81.54.134>

Max-Forwards: 70

Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[147] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK738236aece33

From: <sip:1007@10.1.197.55>;tag=75473~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591

To: <sip:7001@10.81.54.134>;tag=58~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385

Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134

CSeq: 103 NOTIFY

Max-Forwards: 70

Date: Wed, 17 Nov 2010 17:57:55 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Subscription-State: terminated

Contact: <sip:1007@10.1.197.55:5060;transport=tcp>

Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[148] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK738236aece33
 From: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 To: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 Date: Wed, 17 Nov 2010 17:57:55 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[149] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK738328b88b7d
 From: <sip:1016@10.1.197.55>;tag=75467-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 To: <sip:7001@10.81.54.134>;tag=50-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:55 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[150] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK738328b88b7d
 From: <sip:1016@10.1.197.55>;tag=75467-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589
 To: <sip:7001@10.81.54.134>;tag=50-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382
 Date: Wed, 17 Nov 2010 17:57:55 GMT
 Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[151] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK43adb59e5
 From: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 To: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 Date: Wed, 17 Nov 2010 17:57:55 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 106 SUBSCRIBE
 Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[152] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK738462d3939a
 From: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 To: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 104 NOTIFY
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:57:55 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:1007@10.1.197.55:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[153] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.1.197.55:5060;branch=z9hG4bK738462d3939a
 From: <sip:1007@10.1.197.55>;tag=75473-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175591
 To: <sip:7001@10.81.54.134>;tag=58-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230385
 Date: Wed, 17 Nov 2010 17:57:55 GMT
 Call-ID: 22462300-ce411787-14-8636510a@10.81.54.134
 CSeq: 104 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[154] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK4469c57761

From: <sip:7001@10.81.54.134>;tag=50~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230382

To: <sip:1016@10.1.197.55>;tag=75467~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175589

Date: Wed, 17 Nov 2010 17:57:55 GMT

Call-ID: 18bcbb00-ce411777-10-8636510a@10.81.54.134

CSeq: 107 SUBSCRIBE

Content-Length: 0

CISCO CONFIDENTIAL**28.8 Early Attended Transfer For a call between SIP phone and a SCCP TNP Device**

Title: Early Attended Transfer For a call between SIP phone and a SCCP TNP Device

Description:

Early attended transfer for a call between SIP phone and a SCCP TNP device across an Early Offer enabled inter cluster SIP trunk.

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.81.54.134

Node = Unified CM2, IP = 10.1.199.84

Phone = A, Line = 7001, IP = 10.1.203.140, Model = SIP

Phone = B, Line = 8200, IP = 10.1.199.65, Model = SCCP

Phone = C, Line = 8214, IP = 10.1.201.183, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 88.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Send send-recvd SDP in mid-call

Scenario:

Phone A DN 7001 calls Phone B DN 8200 over the SIP Trunk by dialing 881016

Phone B DN 8200 Answers

Phone A DN 7001 presses Transfer

Phone A DN 7001 calls Phone C DN 8214 over the SIP Trunk by dialing 888214

Phone C DN 8214 Rings

Phone A DN 7001 presses Transfer

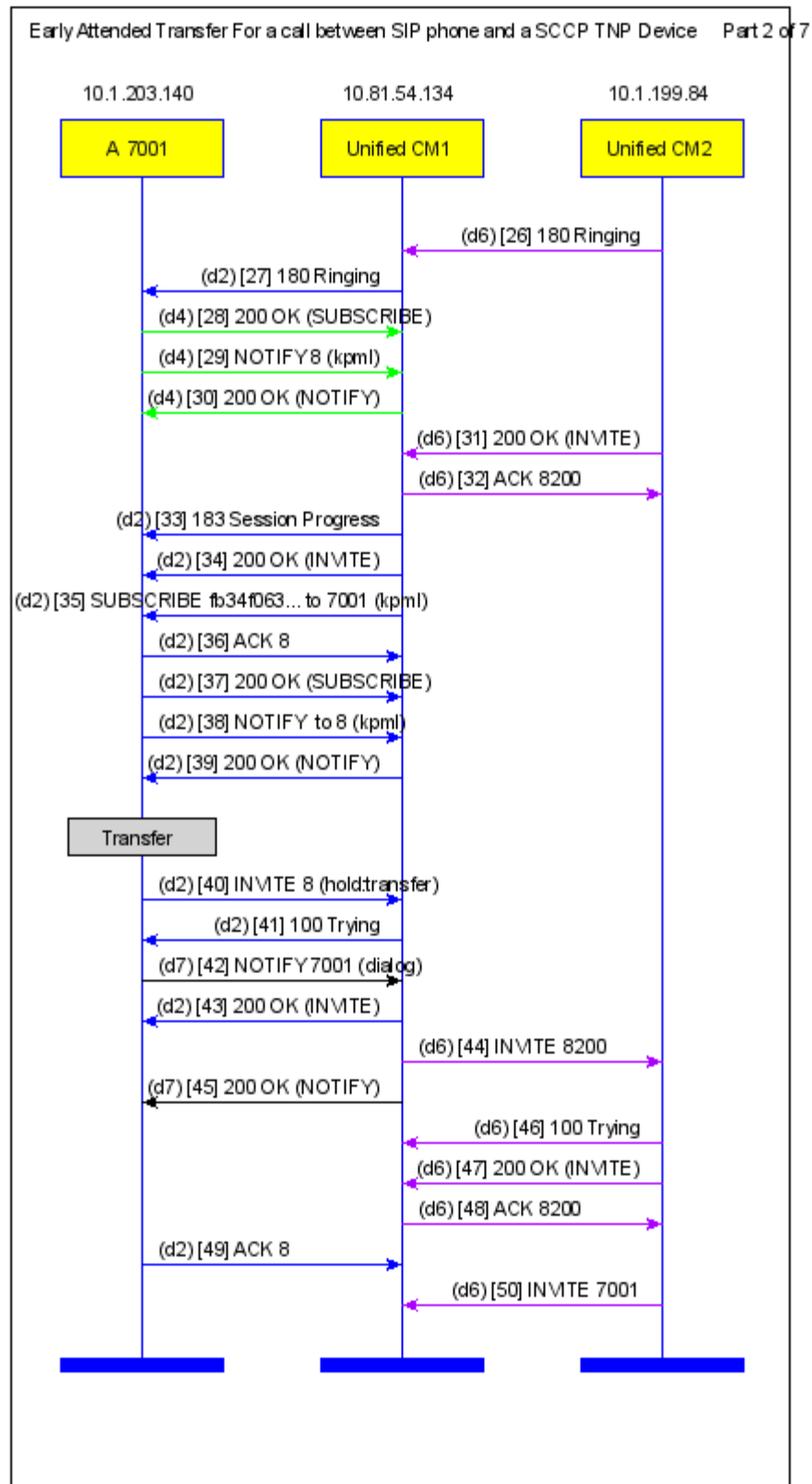
Phone C DN 8214 Answers

End of Scenario

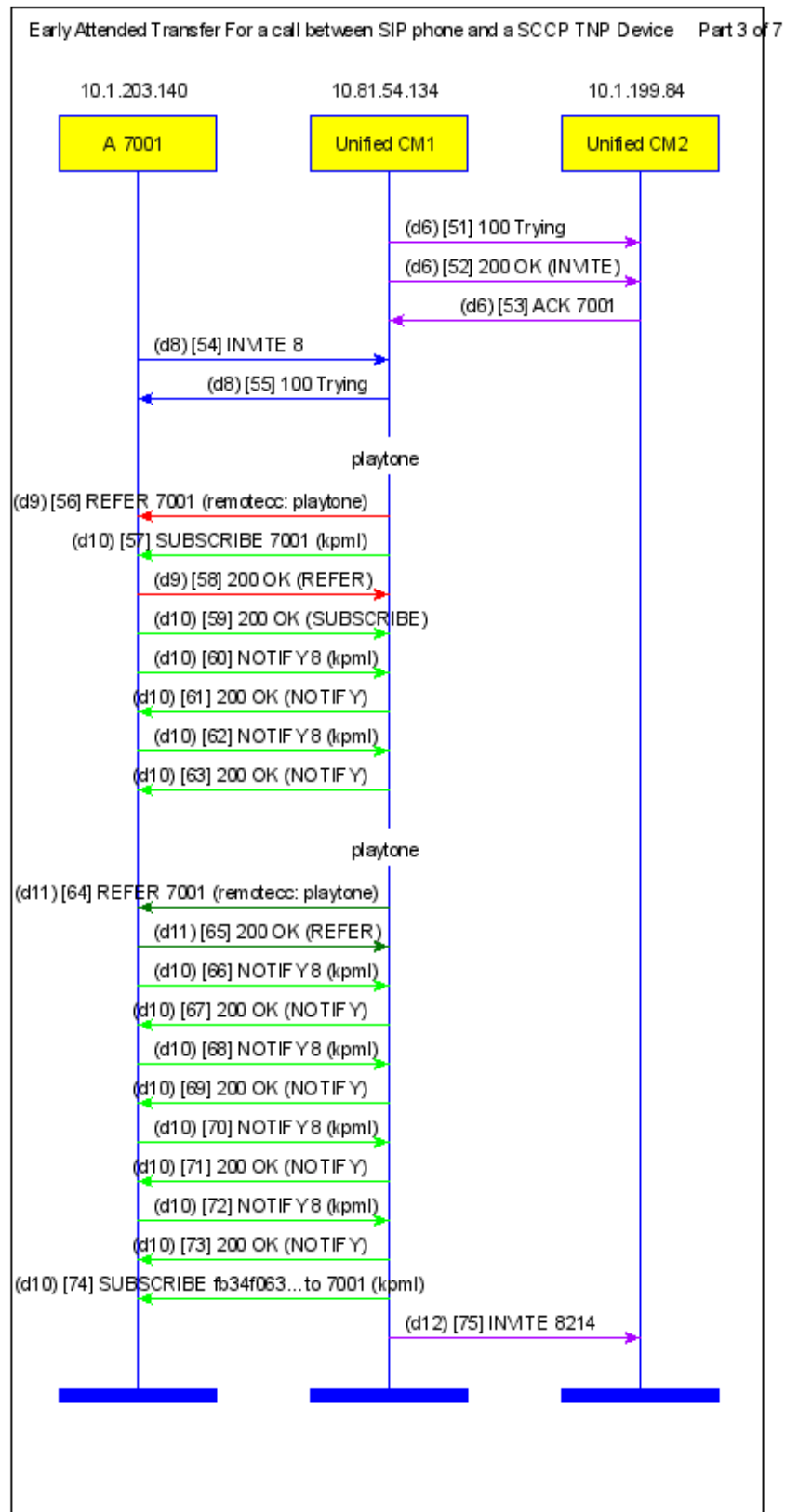
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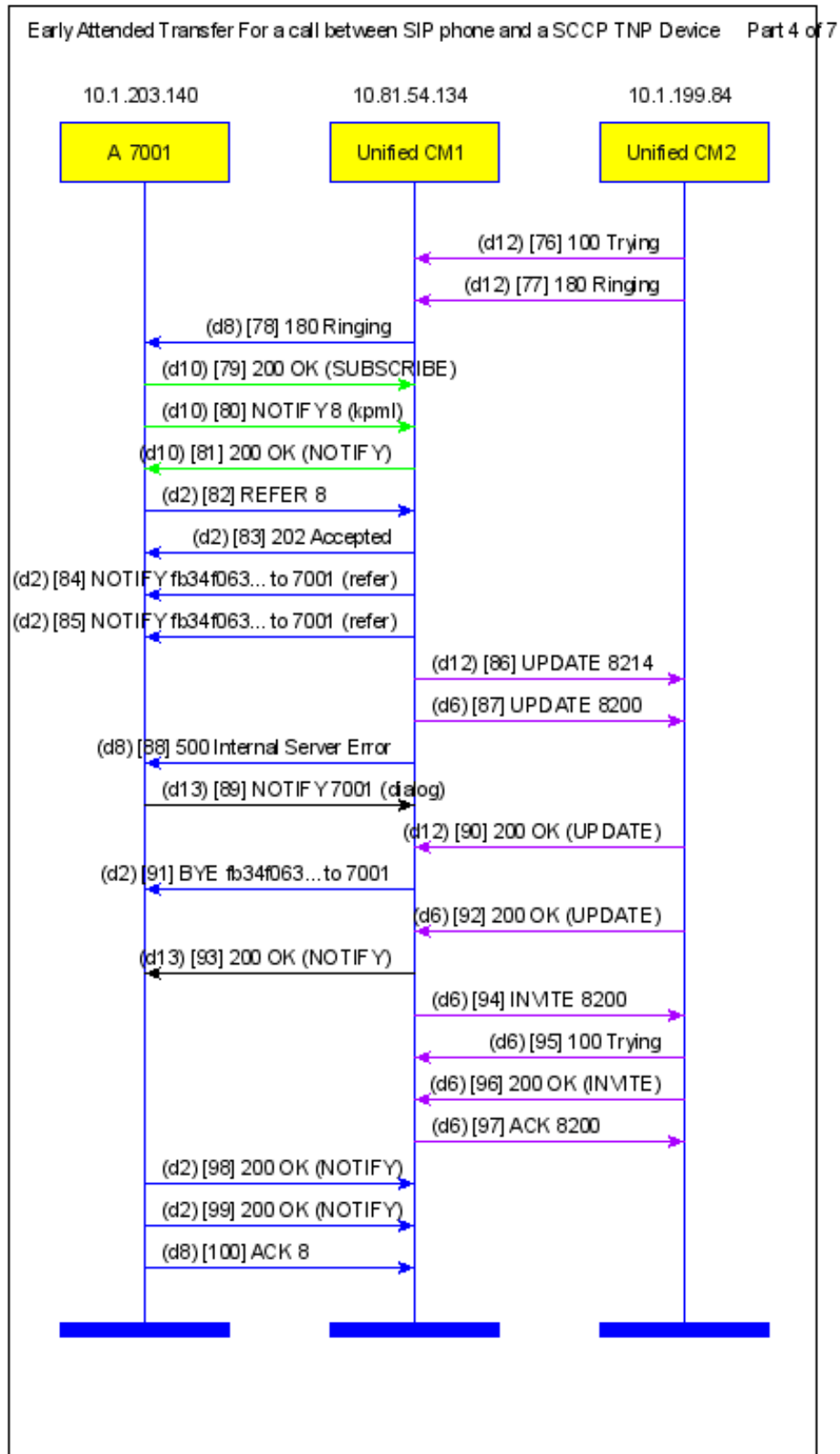
CISCO CONFIDENTIAL



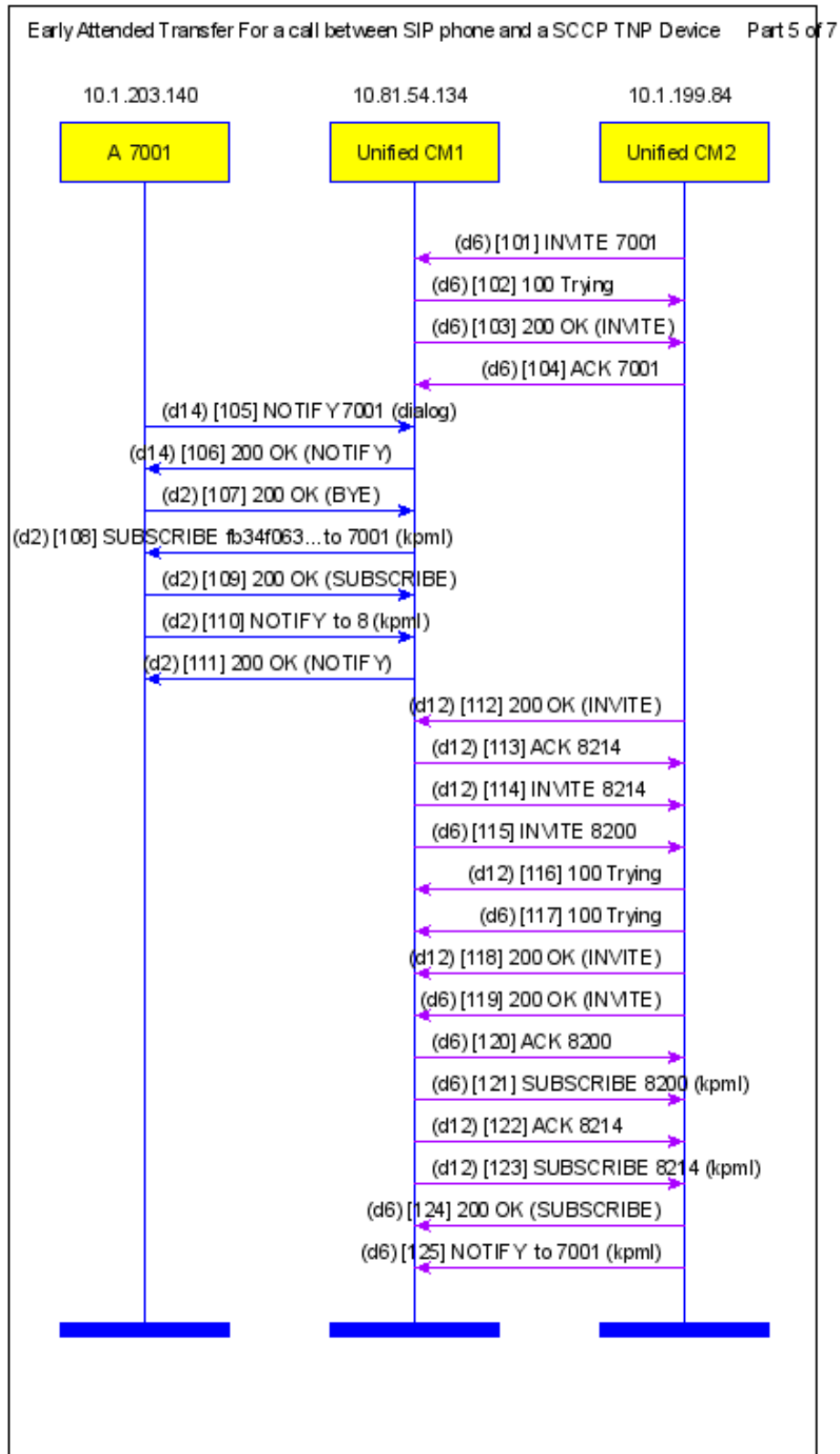
CISCO CONFIDENTIAL



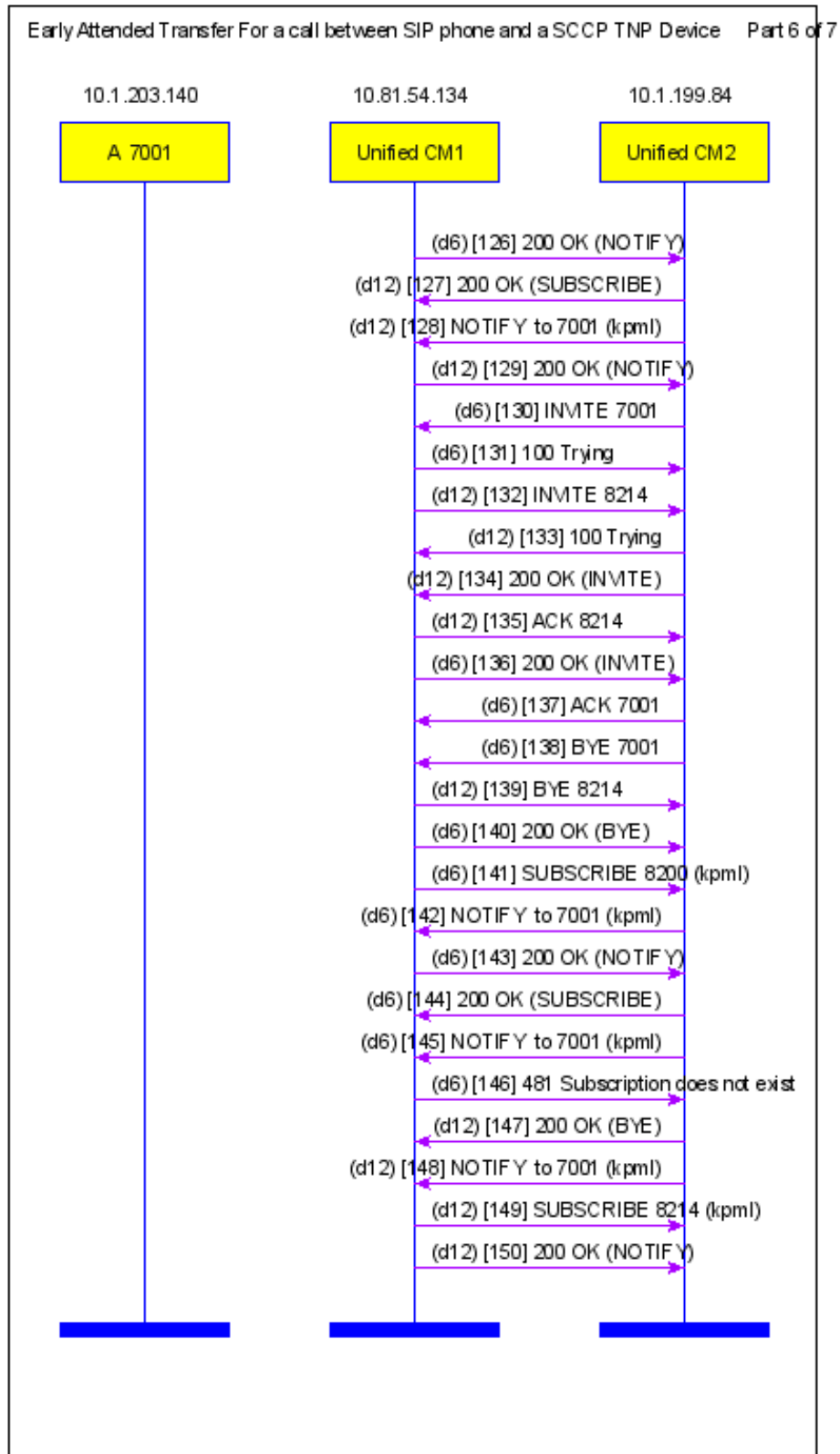
CISCO CONFIDENTIAL

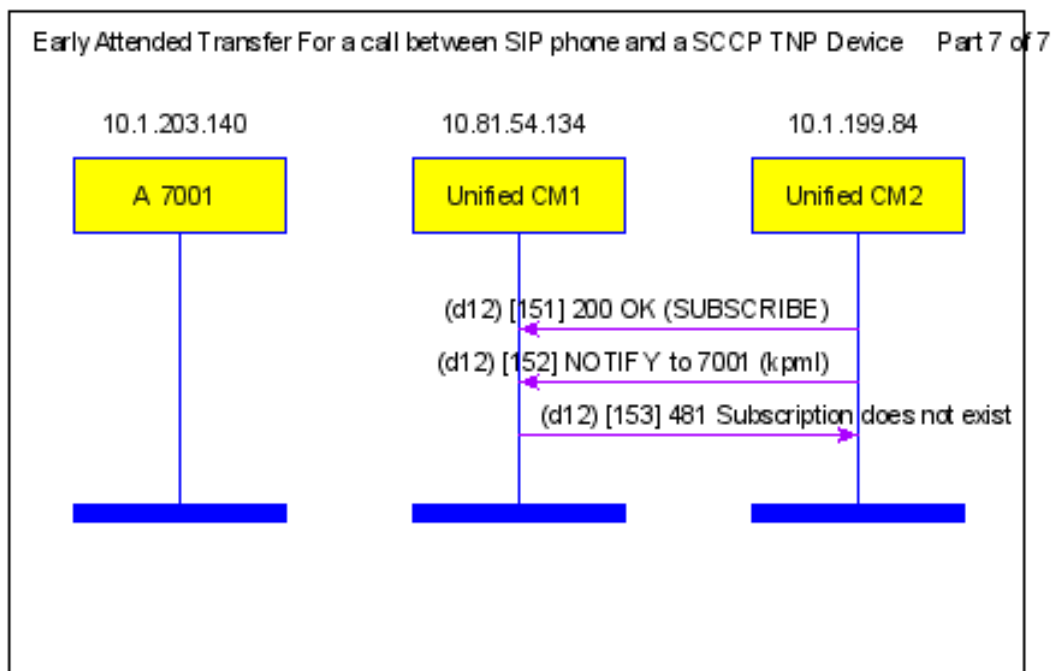


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[diagram] Call-ID: [prev] [next]

[1] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK2b29a26e

To: <sip:7001@10.81.54.134>

From: <sip:7001@10.81.54.134>;tag=00141c807e4a5b722c153ea8-fab21181

Call-ID: a40d5c52-39eac14f@10.1.203.140

Date: Fri, 17 Dec 2010 22:50:45 GMT

CSeq: 29 NOTIFY

Event: dialog

Subscription-State: active

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 359

Content-Type: application/dialog-info+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8" ?>

<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="16" state="partial" entity="sip:7001@10.1.203.140">

<dialog id="18" call-id="00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140" local-tag="00141c807e4a5b71ca5b04e3-e271c884"><state>trying</state></dialog>

</dialog-info>

[diagram] Call-ID: [prev] [next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK2b29a26e

From: <sip:7001@10.81.54.134>;tag=00141c807e4a5b722c153ea8-fab21181

To: <sip:7001@10.81.54.134>;tag=768733958

Date: Fri, 17 Dec 2010 22:50:46 GMT

Call-ID: a40d5c52-39eac14f@10.1.203.140

CSeq: 29 NOTIFY

Content-Length: 0

[diagram] Call-ID: [prev] [next]

[3] INVITE sip:8@10.81.54.134;user=phone SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK88d2d46c

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884

To: <sip:8@10.81.54.134;user=phone>

Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140

Max-Forwards: 70

Date: Fri, 17 Dec 2010 22:50:46 GMT

CSeq: 101 INVITE

User-Agent: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp>

Expires: 180

Accept: application/sdp

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO

Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes

Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1

Allow-Events: kpml, dialog

Content-Length: 332

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 25710 0 IN IP4 10.1.203.140

s=SIP Call

t=0 0

m=audio 26204 RTP/AVP 0 8 18 102 9 101

c=IN IP4 10.1.203.140

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:102 L16/16000

a=rtpmap:9 G722/8000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

[diagram] Call-ID: [prev] [next]

[4] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK88d2d46c

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884

To: <sip:8@10.81.54.134;user=phone>

Date: Fri, 17 Dec 2010 22:50:47 GMT

Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140

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CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)
[5] REFER sip:7001@10.1.203.140:52959 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb6365d1e6e
 From: <sip:7001@10.81.54.134>;tag=1902041508
 To: <sip:7001@10.1.203.140>
 Call-ID: 15158300-d0b1e947-46-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub
 Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 415

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140</callid>
    <localtag>23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414</localtag>
    <remotetag>00141c807e4a5b71ca5b04e3-e271c884</remotetag>
  </dialogid>
  <tonetype>DtOutsideDialTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)
[6] SUBSCRIBE sip:7001@10.1.203.140:52959 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb74e4721f4
 From: <sip:8@10.81.54.134>;tag=670979149
 To: <sip:7001@10.1.203.140>
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 CSeq: 101 SUBSCRIBE
 Date: Fri, 17 Dec 2010 22:50:47 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140; from-tag=00141c807e4a5b71ca5b04e3-e271c884
 Expires: 7200
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 424

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern criticaldigittimer="1000" extradigittimer="500" interdigittimer="15000" persist="persist">
    <regex tag="Backspace OK">[x#*+]|bs</regex>
  </pattern>

</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)
[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb6365d1e6e
 From: <sip:7001@10.81.54.134>;tag=1902041508
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b7372beed56-53fcc1bb
 Call-ID: 15158300-d0b1e947-46-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:46 GMT
 CSeq: 101 REFER
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)
[8] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb74e4721f4

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From: <sip:8@10.81.54.134>;tag=670979149
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:46 GMT
 CSeq: 101 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK3870fd07
 To: <sip:8@10.81.54.134>;tag=670979149
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:46 GMT
 CSeq: 1000 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK3870fd07
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
 To: <sip:8@10.81.54.134>;tag=670979149
 Date: Fri, 17 Dec 2010 22:50:47 GMT
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 CSeq: 1000 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK8a6745ba
 To: <sip:8@10.81.54.134>;tag=670979149
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:46 GMT
 CSeq: 1001 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK8a6745ba
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
 To: <sip:8@10.81.54.134>;tag=670979149
 Date: Fri, 17 Dec 2010 22:50:48 GMT
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 CSeq: 1001 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] REFER sip:7001@10.1.203.140:52959 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb8261f8a59
 From: <sip:7001@10.81.54.134>;tag=1222044502
 To: <sip:7001@10.1.203.140>
 Call-ID: 15ae1980-d0b1e948-48-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub

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Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 407

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140</callid>
    <localtag>23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414</localtag>
    <remotetag>00141c807e4a5b71ca5b04e3-e271c884</remotetag>
  </dialogid>
  <tonetype>Dt_NoTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb8261f8a59
 From: <sip:7001@10.81.54.134>;tag=1222044502
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b7511045934-e8eac7e5
 Call-ID: 15ae1980-d0b1e948-48-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:46 GMT
 CSeq: 101 REFER
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKa1b927d3
 To: <sip:8@10.81.54.134>;tag=670979149
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:47 GMT
 CSeq: 1002 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
  suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKa1b927d3
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
 To: <sip:8@10.81.54.134>;tag=670979149
 Date: Fri, 17 Dec 2010 22:50:48 GMT
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 CSeq: 1002 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKc3d34b9e
 To: <sip:8@10.81.54.134>;tag=670979149
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
 Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:47 GMT
 CSeq: 1003 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
```

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```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="2" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKc3d34b9e
From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
To: <sip:8@10.81.54.134>;tag=670979149
Date: Fri, 17 Dec 2010 22:50:49 GMT
Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
CSeq: 1003 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK39cca4f1
To: <sip:8@10.81.54.134>;tag=670979149
From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
Date: Fri, 17 Dec 2010 22:50:48 GMT
CSeq: 1004 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="0" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK39cca4f1
From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
To: <sip:8@10.81.54.134>;tag=670979149
Date: Fri, 17 Dec 2010 22:50:49 GMT
Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
CSeq: 1004 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKdc30fa58
To: <sip:8@10.81.54.134>;tag=670979149
From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
Date: Fri, 17 Dec 2010 22:50:48 GMT
CSeq: 1005 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="0" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKdc30fa58
From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
To: <sip:8@10.81.54.134>;tag=670979149
Date: Fri, 17 Dec 2010 22:50:49 GMT
Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
CSeq: 1005 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb94f625716
From: <sip:8@10.81.54.134>;tag=670979149
To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59
```

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Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134
 CSeq: 102 SUBSCRIBE
 Date: Fri, 17 Dec 2010 22:50:49 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140; from-tag=00141c807e4a5b71ca5b04e3-e271c884
 Expires: 0
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[24] INVITE sip:8200@10.1.199.84:5060 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKba31f83e73
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>
 Date: Fri, 17 Dec 2010 22:50:49 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0373731328-0000065536-0000000018-2251706634
 Session-Expires: 1800
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 69
 Content-Type: application/sdp
 Content-Length: 359

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.203.140
 b=TIAS:64000
 t=0 0
 m=audio 26204 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[25] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKba31f83e73
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>
 Date: Fri, 17 Dec 2010 22:50:49 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[26] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKba31f83e73
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:50:49 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation

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P-Asserted-Identity: "8200" <sip:8200@10.1.199.84>

Remote-Party-ID: "8200" <sip:8200@10.1.199.84>;party=called;screen=yes;privacy=off

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK88d2d46c

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884

To: <sip:8@10.81.54.134;user=phone>;tag=23012-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414

Date: Fri, 17 Dec 2010 22:50:47 GMT

Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence

Call-Info: <urn:x-cisco-remotecallinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;

gci= 1-1019; call-instance= 1

Send-Info: conference, x-cisco-conference

Remote-Party-ID: "8200" <sip:8200@10.81.54.134>;party=called;screen=yes;privacy=off

Contact: <sip:8@10.81.54.134:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb94f625716

From: <sip:8@10.81.54.134>;tag=670979149

To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59

Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134

Date: Fri, 17 Dec 2010 22:50:48 GMT

CSeq: 102 SUBSCRIBE

Server: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Expires: 0

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKc0c8b53f

To: <sip:8@10.81.54.134>;tag=670979149

From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59

Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134

Date: Fri, 17 Dec 2010 22:50:48 GMT

CSeq: 1006 NOTIFY

Event: kpml

Subscription-State: terminated; reason=timeout

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 222

Content-Type: application/kpml-response+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8"?>

<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp" suppressed="false" forced_flush="false" digits="" tag="Backspace OK"/>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKc0c8b53f

From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b74955d6d90-0be63a59

To: <sip:8@10.81.54.134>;tag=670979149

Date: Fri, 17 Dec 2010 22:50:49 GMT

Call-ID: 15158300-d0b1e947-47-8636510a@10.81.54.134

CSeq: 1006 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKba31f83e73

From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415

To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521

Date: Fri, 17 Dec 2010 22:50:49 GMT

Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence, kpml

Contact: <sip:8200@10.1.199.84:5060;transport=tcp>

Supported: replaces

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

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Require: timer
P-Asserted-Identity: <sip:8200@10.1.199.84>
Remote-Party-ID: <sip:8200@10.1.199.84>;party=called;screen=yes;privacy=off
Content-Type: application/sdp
Content-Length: 214

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.199.84
s=SIP Call
c=IN IP4 10.1.199.65
t=0 0
m=audio 27836 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] ACK sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKbb324077d2
From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
Date: Fri, 17 Dec 2010 22:50:49 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[33] SIP/2.0 183 Session Progress
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK88d2d46c
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
To: <sip:8@10.81.54.134;user=phone>;tag=23012-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
Date: Fri, 17 Dec 2010 22:50:47 GMT
Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
gci= 1-1019; call-instance= 1
Send-Info: conference, x-cisco-conference
Remote-Party-ID: "8200" <sip:8200@10.81.54.134>;party=called;screen=yes;privacy=off
Contact: <sip:8@10.81.54.134:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 213

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
s=SIP Call
c=IN IP4 10.1.199.65
t=0 0
m=audio 27836 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[34] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK88d2d46c
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
To: <sip:8@10.81.54.134;user=phone>;tag=23012-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
Date: Fri, 17 Dec 2010 22:50:47 GMT
Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: replaces
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1019; call-instance= 1
Send-Info: conference, x-cisco-conference
Remote-Party-ID: <sip:8200@10.81.54.134>;party=called;screen=yes;privacy=off
Contact: <sip:8@10.81.54.134:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 213

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
s=SIP Call

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```
c=IN IP4 10.1.199.65
t=0 0
m=audio 27836 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[35] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKbc54cfac0f
From: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
CSeq: 101 SUBSCRIBE
Date: Fri, 17 Dec 2010 22:50:51 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.81.54.134:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
<pattern interdigittimer="7260000" persist="persist">
  <regex tag="dtmf">[x*#ABCD]</regex>
</pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[36] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK0f91d082
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
To: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
Max-Forwards: 70
Date: Fri, 17 Dec 2010 22:50:50 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7970G/9.1.1
Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[37] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKbc54cfac0f
From: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
Date: Fri, 17 Dec 2010 22:50:50 GMT
CSeq: 101 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[38] NOTIFY sip:10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK30d0cd1d
To: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
Date: Fri, 17 Dec 2010 22:50:50 GMT
CSeq: 102 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[39] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK30d0cd1d
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
```


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To: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 Date: Fri, 17 Dec 2010 22:50:51 GMT
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[40] INVITE sip:8@10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKab8a541c
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 To: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 Max-Forwards: 70
 Date: Fri, 17 Dec 2010 22:50:53 GMT
 CSeq: 103 INVITE
 User-Agent: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp>
 Accept: application/sdp
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Call-Info: <urn:x-cisco-remotecc:hold>; reason= transfer
 Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1
 Allow-Events: kpml,dialog
 Content-Length: 332
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 25710 1 IN IP4 10.1.203.140
 s=SIP Call
 t=0 0
 m=audio 26204 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.1.203.140
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annex=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendonly

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[41] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKab8a541c
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 To: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 CSeq: 103 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[42] NOTIFY sip:7001@10.81.54.134 SIP/2.0
 Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK554f75f7
 To: <sip:7001@10.81.54.134>
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a5b77f5f74955-bf8ea3ea
 Call-ID: 51c146c3-9c3e40e4@10.1.203.140
 Date: Fri, 17 Dec 2010 22:50:53 GMT
 CSeq: 30 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 595
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="17"
state="partial" entity="sip:7001@10.1.203.140">
<dialog id="19" call-id="00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140" local-
tag="00141c807e4a5b763c3b0b40-7799a5c9"><state>trying</state><call:primary call-id="00141c80-7e4a0019-
88106c75-ffcd928a@10.1.203.140" local-tag="00141c807e4a5b71ca5b04e3-e271c884" remote-tag="23012~d138edfe-
79fb-4db2-9d4a-3737bda378a5-26230414"><hold-reason>transfer</hold-reason></call:primary></dialog>
```

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</dialog-info>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[43] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKab8a541c
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 To: <sip:8@10.81.54.134;user=phone>;tag=23012-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1019; call-instance= 1
 Remote-Party-ID: <sip:8200@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 27836 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[44] INVITE sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKbd20ea9a67
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[45] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK554f75f7
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a5b77f5f74955-bf8ea3ea
 To: <sip:7001@10.81.54.134>;tag=361773333
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 51c146c3-9c3e40e4@10.1.203.140
 CSeq: 30 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[46] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKbd20ea9a67
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[47] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKbd20ea9a67
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415

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To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:8200@10.1.199.84>
 Remote-Party-ID: <sip:8200@10.1.199.84>;party=called;screen=yes;privacy=off
 Content-Type: application/sdp
 Content-Length: 335

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.1.199.84
 s=SIP Call
 c=IN IP4 10.1.199.65
 t=0 0
 m=audio 4000 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=sendonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[48] ACK sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb953d9ea
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.81.54.134
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[49] ACK sip:8010.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK33f2b4ce
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 To: <sip:8010.81.54.134;user=phone>;tag=23012-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 Max-Forwards: 70
 Date: Fri, 17 Dec 2010 22:50:53 GMT
 CSeq: 103 ACK
 User-Agent: Cisco-CP7970G/9.1.1
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[50] INVITE sip:7001@10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK211dd102f2
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 Supported: timer, resource-priority, replaces
 Min-SE: 180
 Cisco-Guid: 0373731328-00000065536-0000000018-2251706634

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User-Agent: Cisco-CUCM8.0
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:8200@10.1.199.84>
 Remote-Party-ID: <sip:8200@10.1.199.84>;party=calling;screen=yes;privacy=off
 Content-Type: application/sdp
 Content-Length: 158

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.1.199.84
 s=SIP Call
 c=IN IP4 10.1.199.65
 t=0 0
 m=audio 28162 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[51] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK211dd102f2
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[52] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK211dd102f2
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.81.54.134
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[53] ACK sip:7001@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK212478f28d1
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

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[diagram] Call-ID:[prev][next]

[54] INVITE sip:8010.81.54.134;user=phone SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKacf19148

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b763c3b0b40-7799a5c9

To: <sip:8010.81.54.134;user=phone>

Call-ID: 00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140

Max-Forwards: 70

Date: Fri, 17 Dec 2010 22:50:54 GMT

CSeq: 101 INVITE

User-Agent: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp>

Expires: 180

Accept: application/sdp

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO

Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1

Allow-Events: kpml,dialog

Content-Length: 332

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 24914 0 IN IP4 10.1.203.140

s=SIP Call

t=0 0

m=audio 24752 RTP/AVP 0 8 18 102 9 101

c=IN IP4 10.1.203.140

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:102 L16/16000

a=rtpmap:9 G722/8000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

[diagram] Call-ID:[prev][next]

[55] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKacf19148

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b763c3b0b40-7799a5c9

To: <sip:8010.81.54.134;user=phone>

Date: Fri, 17 Dec 2010 22:50:55 GMT

Call-ID: 00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[diagram] Call-ID:[prev][next]

[56] REFER sip:7001@10.1.203.140:52959 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKbf3d510b45

From: <sip:7001@10.81.54.134>;tag=230887615

To: <sip:7001@10.1.203.140>

Call-ID: 19da3700-d0b1e94f-4a-8636510a@10.81.54.134

CSeq: 101 REFER

Max-Forwards: 70

Contact: <sip:7001@10.81.54.134:5060;transport=tcp>

User-Agent: Cisco-CUCM8.5

Expires: 0

Refer-To: cid:1234567890@10.81.54.134

Content-Id: <1234567890@10.81.54.134>

Require: norefersub

Content-Type: application/x-cisco-remotecc-request+xml

Referred-By: <sip:7001@10.81.54.134>

Content-Length: 415

<x-cisco-remotecc-request>

<playtonereq>

<dialogid>

<callid>00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140</callid>

<localtag>23020-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230416</localtag>

<remotetag>00141c807e4a5b763c3b0b40-7799a5c9</remotetag>

</dialogid>

<tonetype>DtOutsideDialTone</tonetype>

<direction>user</direction>

</playtonereq>

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</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[57] SUBSCRIBE sip:7001@10.1.203.140:52959 SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc0354c35e8

From: <sip:8@10.81.54.134>;tag=2078990194

To: <sip:7001@10.1.203.140>

Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134

CSeq: 101 SUBSCRIBE

Date: Fri, 17 Dec 2010 22:50:55 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml; call-id=00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140; from-tag=00141c807e4a5b763c3b0b40-7799a5c9

Expires: 7200

Contact: <sip:8@10.81.54.134:5060;transport=tcp>

Accept: application/kpml-response+xml

Max-Forwards: 70

Content-Type: application/kpml-request+xml

Content-Length: 424

<?xml version="1.0" encoding="UTF-8" ?>

<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

<pattern criticaldigittimer="1000" extradigittimer="500" interdigittimer="15000" persist="persist">

<regex tag="Backspace OK">[x#*+]|bs</regex>

</pattern>

</kpml-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[58] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKbf3d510b45

From: <sip:7001@10.81.54.134>;tag=230887615

To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b78691ba372-2190940f

Call-ID: 19da3700-d0b1e94f-4a-8636510a@10.81.54.134

Date: Fri, 17 Dec 2010 22:50:54 GMT

CSeq: 101 REFER

Server: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[59] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc0354c35e8

From: <sip:8@10.81.54.134>;tag=2078990194

To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d

Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134

Date: Fri, 17 Dec 2010 22:50:54 GMT

CSeq: 101 SUBSCRIBE

Server: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Expires: 7200

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[60] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK59794a3b

To: <sip:8@10.81.54.134>;tag=2078990194

From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d

Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134

Date: Fri, 17 Dec 2010 22:50:54 GMT

CSeq: 1000 NOTIFY

Event: kpml

Subscription-State: active; expires=7200

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[61] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK59794a3b

From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d

To: <sip:8@10.81.54.134>;tag=2078990194

Date: Fri, 17 Dec 2010 22:50:55 GMT

Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134

CSeq: 1000 NOTIFY

Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[62] NOTIFY sip:8010.81.54.134:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKb2bad9b6

To: <sip:8010.81.54.134>;tag=2078990194

From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d

Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134

Date: Fri, 17 Dec 2010 22:50:55 GMT

CSeq: 1001 NOTIFY

Event: kpml

Subscription-State: active; expires=7200

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 209

Content-Type: application/kpml-response+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8"?>

<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK" suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[63] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKb2bad9b6

From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d

To: <sip:8010.81.54.134>;tag=2078990194

Date: Fri, 17 Dec 2010 22:50:56 GMT

Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134

CSeq: 1001 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[64] REFER sip:7001@10.1.203.140:52959 SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc14349491b

From: <sip:7001@10.81.54.134>;tag=69604731

To: <sip:7001@10.1.203.140>

Call-ID: 1a72cd80-d0b1e950-4c-8636510a@10.81.54.134

CSeq: 101 REFER

Max-Forwards: 70

Contact: <sip:7001@10.81.54.134:5060;transport=tcp>

User-Agent: Cisco-CUCM8.5

Expires: 0

Refer-To: cid:1234567890@10.81.54.134

Content-Id: <1234567890@10.81.54.134>

Require: norefersub

Content-Type: application/x-cisco-remotecc-request+xml

Referred-By: <sip:7001@10.81.54.134>

Content-Length: 407

<x-cisco-remotecc-request>

<playtonereq>

<dialogid>

<callid>00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140</callid>

<localtag>23020~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230416</localtag>

<remotetag>00141c807e4a5b763c3b0b40-7799a5c9</remotetag>

</dialogid>

<tonetype>Dt_NoTone</tonetype>

<direction>user</direction>

</playtonereq>

</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[65] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc14349491b

From: <sip:7001@10.81.54.134>;tag=69604731

To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b7a7704eaf0-63f64a59

Call-ID: 1a72cd80-d0b1e950-4c-8636510a@10.81.54.134

Date: Fri, 17 Dec 2010 22:50:55 GMT

CSeq: 101 REFER

Server: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[66] NOTIFY sip:8010.81.54.134:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK11134487

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To: <sip:8@10.81.54.134>;tag=2078990194
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:55 GMT
 CSeq: 1002 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[67] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK11134487
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 To: <sip:8@10.81.54.134>;tag=2078990194
 Date: Fri, 17 Dec 2010 22:50:56 GMT
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 CSeq: 1002 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[68] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKa821475a
 To: <sip:8@10.81.54.134>;tag=2078990194
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:56 GMT
 CSeq: 1003 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="2" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[69] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKa821475a
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 To: <sip:8@10.81.54.134>;tag=2078990194
 Date: Fri, 17 Dec 2010 22:50:57 GMT
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 CSeq: 1003 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[70] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK00dac565
 To: <sip:8@10.81.54.134>;tag=2078990194
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:56 GMT
 CSeq: 1004 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```


CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[71] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK00dac565
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 To: <sip:8@10.81.54.134>;tag=2078990194
 Date: Fri, 17 Dec 2010 22:50:57 GMT
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 CSeq: 1004 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[72] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK95373ad4
 To: <sip:8@10.81.54.134>;tag=2078990194
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 Date: Fri, 17 Dec 2010 22:50:56 GMT
 CSeq: 1005 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="4" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[73] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK95373ad4
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 To: <sip:8@10.81.54.134>;tag=2078990194
 Date: Fri, 17 Dec 2010 22:50:58 GMT
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 CSeq: 1005 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[74] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc2250ca720
 From: <sip:8@10.81.54.134>;tag=2078990194
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
 Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
 CSeq: 102 SUBSCRIBE
 Date: Fri, 17 Dec 2010 22:50:58 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140; from-tag=00141c807e4a5b763c3b0b40-7799a5c9
 Expires: 0
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[75] INVITE sip:8214@10.1.199.84:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc32c9d2b04
 From: <sip:7001@10.81.54.134>;tag=23024-d13edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>
 Date: Fri, 17 Dec 2010 22:50:58 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0463731328-0000065536-0000000019-2251706634
 Session-Expires: 1800
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 69

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Content-Type: application/sdp
Content-Length: 359

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
s=SIP Call
c=IN IP4 10.1.203.140
b=TIAS:64000
t=0 0
m=audio 24752 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[76] SIP/2.0 100 Trying

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc32c9d2b04
From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>
Date: Fri, 17 Dec 2010 22:50:58 GMT
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[77] SIP/2.0 180 Ringing

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc32c9d2b04
From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
Date: Fri, 17 Dec 2010 22:50:58 GMT
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: "vp84" <sip:8214@10.1.199.84>
Remote-Party-ID: "vp84" <sip:8214@10.1.199.84>;party=called;screen=yes;privacy=off
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[78] SIP/2.0 180 Ringing

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKacf19148
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b763c3b0b40-7799a5c9
To: <sip:8@10.81.54.134;user=phone>;tag=23020-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230416
Date: Fri, 17 Dec 2010 22:50:55 GMT
Call-ID: 00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
gci= 1-1020; call-instance= 2
Send-Info: conference, x-cisco-conference
Remote-Party-ID: "vp84" <sip:8214@10.81.54.134>;party=called;screen=yes;privacy=off
Contact: <sip:8@10.81.54.134:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[79] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc2250ca720
From: <sip:8@10.81.54.134>;tag=2078990194
To: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d
Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134
Date: Fri, 17 Dec 2010 22:50:56 GMT
CSeq: 102 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
Expires: 0
Content-Length: 0
```


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Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK73360a93

To: <sip:8010.81.54.134>;tag=2078990194

From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d

Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134

Date: Fri, 17 Dec 2010 22:50:57 GMT

CSeq: 1006 NOTIFY

Event: kpml

Subscription-State: terminated; reason=timeout

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE

Content-Length: 222

Content-Type: application/kpml-response+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8"?>

<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp" suppressed="false" forced_flush="false" digits="" tag="Backspace OK"/>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[81] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK73360a93

From: <sip:7001@10.1.203.140>;tag=00141c807e4a5b791a911a8c-4be3ec2d

To: <sip:8010.81.54.134>;tag=2078990194

Date: Fri, 17 Dec 2010 22:50:58 GMT

Call-ID: 19da3700-d0b1e94f-4b-8636510a@10.81.54.134

CSeq: 1006 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[82] REFER sip:8010.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKc6b3a23e

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884

To: <sip:8010.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414

Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140

Max-Forwards: 70

Date: Fri, 17 Dec 2010 22:51:02 GMT

CSeq: 104 REFER

User-Agent: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp>

Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes

Refer-To: <sip:888214@10.81.54.134?Replaces=00141c80-7e4a001a-a7dc0186-9a7087ab%4010.1.203.140%3Bto-

tag%3D23020~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230416%3Bfrom-tag%3D00141c807e4a5b763c3b0b40-7799a5c9>

Referred-By: <sip:7001@10.81.54.134>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[83] SIP/2.0 202 Accepted**

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKc6b3a23e

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884

To: <sip:8010.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414

Date: Fri, 17 Dec 2010 22:51:03 GMT

Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140

CSeq: 104 REFER

Contact: <sip:8010.81.54.134:5060;transport=tcp>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[84] NOTIFY sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc45cd6808a

From: <sip:8010.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414

To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884

Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140

CSeq: 102 NOTIFY

Max-Forwards: 70

Date: Fri, 17 Dec 2010 22:51:03 GMT

User-Agent: Cisco-CUCM8.5

Event: refer

Subscription-State: active;expires=60

Contact: <sip:10.81.54.134:5060;transport=tcp>

Content-Type: message/sipfrag;version=2.0

Content-Length: 20

SIP/2.0 100 Trying

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[85] NOTIFY sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc51e762670

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From: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Fri, 17 Dec 2010 22:51:03 GMT
 User-Agent: Cisco-CUCM8.5
 Event: refer
 Subscription-State: terminated;reason=noresource
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Content-Type: message/sipfrag;version=2.0
 Content-Length: 16

SIP/2.0 200 OK

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[86] UPDATE sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc6370349c4
 From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:50:58 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:8200@10.81.54.134>
 Remote-Party-ID: <sip:8200@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[87] UPDATE sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc759112a47
 From: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:50:54 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: "vp84" <sip:8214@10.81.54.134>
 Remote-Party-ID: "vp84" <sip:8214@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[88] SIP/2.0 500 Internal Server Error

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKacf19148
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b763c3b0b40-7799a5c9
 To: <sip:8@10.81.54.134;user=phone>;tag=23020~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230416
 Date: Fri, 17 Dec 2010 22:50:55 GMT
 Call-ID: 00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[89] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK4c81f071
 To: <sip:7001@10.81.54.134>
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a5b7bbc33647f-11a526b8
 Call-ID: 9745eddd-00e474a2@10.1.203.140
 Date: Fri, 17 Dec 2010 22:51:02 GMT
 CSeq: 31 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 363
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

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```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="18"
state="partial" entity="sip:7001@10.1.203.140">
<dialog id="19" call-id="00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140" local-
tag="00141c807e4a5b763c3b0b40-7799a5c9"><state>terminated</state></dialog>
</dialog-info>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[90] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc6370349c4
From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
Date: Fri, 17 Dec 2010 22:51:03 GMT
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
CSeq: 102 UPDATE
Allow-Events: presence
Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
P-Asserted-Identity: "vp84" <sip:8214@10.1.199.84>
Remote-Party-ID: "vp84" <sip:8214@10.1.199.84>;party=called;screen=yes;privacy=off
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[91] BYE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc84242b6f7
From: <sip:80@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
Date: Fri, 17 Dec 2010 22:51:03 GMT
Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 104 BYE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[92] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc759112a47
From: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
Date: Fri, 17 Dec 2010 22:51:03 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
CSeq: 103 UPDATE
Allow-Events: presence, kpml
Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
P-Asserted-Identity: <sip:8200@10.1.199.84>
Remote-Party-ID: <sip:8200@10.1.199.84>;party=called;screen=yes;privacy=off
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[93] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK4c81f071
From: <sip:7001@10.81.54.134>;tag=00141c807e4a5b7bbc33647f-11a526b8
To: <sip:7001@10.81.54.134>;tag=13692752
Date: Fri, 17 Dec 2010 22:51:04 GMT
Call-ID: 9745eddd-00e474a2@10.1.203.140
CSeq: 31 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[94] INVITE sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc928a26284
From: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
Date: Fri, 17 Dec 2010 22:51:04 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 104 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: "vp84" <sip:8214@10.81.54.134>
Remote-Party-ID: "vp84" <sip:8214@10.81.54.134>;party=calling;screen=yes;privacy=off
Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
Content-Length: 0
```

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[95] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc928a26284
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:51:04 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 104 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[96] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc928a26284
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:51:04 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:8200@10.1.199.84>
 Remote-Party-ID: <sip:8200@10.1.199.84>;party=called;screen=yes;privacy=off
 Content-Type: application/sdp
 Content-Length: 335

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.1.199.84
 s=SIP Call
 c=IN IP4 10.1.199.65
 t=0 0
 m=audio 4000 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=sendonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[97] ACK sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKca31a9337
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:51:04 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 104 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.81.54.134
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[98] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc45cd6808a
 From: <sip:8@10.81.54.134;user=phone>;tag=23012-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 Date: Fri, 17 Dec 2010 22:51:02 GMT

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CSeq: 102 NOTIFY
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[99] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc51e762670
From: <sip:8010.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
Date: Fri, 17 Dec 2010 22:51:02 GMT
CSeq: 103 NOTIFY
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[100] ACK sip:8010.81.54.134;user=phone SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bKacf19148
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b763c3b0b40-7799a5c9
To: <sip:8010.81.54.134;user=phone>;tag=23020~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230416
Call-ID: 00141c80-7e4a001a-a7dc0186-9a7087ab@10.1.203.140
Date: Fri, 17 Dec 2010 22:51:02 GMT
CSeq: 101 ACK
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[101] INVITE sip:7001@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2137626bf2f
From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
Date: Fri, 17 Dec 2010 22:51:04 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
Supported: timer,resource-priority,replaces
Min-SE: 180
Cisco-Guid: 0373731328-00000065536-0000000018-2251706634
User-Agent: Cisco-CUCM8.0
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:8200@10.1.199.84>
Remote-Party-ID: <sip:8200@10.1.199.84>;party=calling;screen=yes;privacy=off
Content-Type: application/sdp
Content-Length: 158

v=0
o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.1.199.84
s=SIP Call
c=IN IP4 10.1.199.65
t=0 0
m=audio 29108 RTP/AVP 0
a=rtpmap:0 PCMU/8000
a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[102] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2137626bf2f
From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
Date: Fri, 17 Dec 2010 22:51:04 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
CSeq: 102 INVITE
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[103] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2137626bf2f
From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
Date: Fri, 17 Dec 2010 22:51:04 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback

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Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: "vp84" <sip:8214@10.81.54.134>
 Remote-Party-ID: "vp84" <sip:8214@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 189

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.81.54.134
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[104] ACK sip:7001@10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2143d87458a
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:51:04 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[105] NOTIFY sip:7001@10.81.54.134 SIP/2.0
 Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK0e730dbc
 To: <sip:7001@10.81.54.134>
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a5b7cb9ba90e6-53ca91ab
 Call-ID: 45870120-a72736c9@10.1.203.140
 Date: Fri, 17 Dec 2010 22:51:03 GMT
 CSeq: 32 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 363
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="19"
state="partial" entity="sip:7001@10.1.203.140">
<dialog id="18" call-id="00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140" local-
tag="00141c807e4a5b71ca5b04e3-e271c884"><state>terminated</state></dialog>
</dialog-info>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[106] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK0e730dbc
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a5b7cb9ba90e6-53ca91ab
 To: <sip:7001@10.81.54.134>;tag=1908214414
 Date: Fri, 17 Dec 2010 22:51:04 GMT
 Call-ID: 45870120-a72736c9@10.1.203.140
 CSeq: 32 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[107] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc84242b6f7
 From: <sip:8@10.81.54.134;user=phone>;tag=23012-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 Date: Fri, 17 Dec 2010 22:51:03 GMT
 CSeq: 104 BYE
 Server: Cisco-CP7970G/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[108] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKcb70010079

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From: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 CSeq: 105 SUBSCRIBE
 Date: Fri, 17 Dec 2010 22:51:04 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[109] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKcb70010079
 From: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 Date: Fri, 17 Dec 2010 22:51:03 GMT
 CSeq: 105 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Expires: 0
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[110] NOTIFY sip:10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK78cdaa37
 To: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 Date: Fri, 17 Dec 2010 22:51:03 GMT
 CSeq: 105 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:52959;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 214
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[111] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:52959;branch=z9hG4bK78cdaa37
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a5b71ca5b04e3-e271c884
 To: <sip:8@10.81.54.134;user=phone>;tag=23012~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230414
 Date: Fri, 17 Dec 2010 22:51:04 GMT
 Call-ID: 00141c80-7e4a0019-88106c75-ffcd928a@10.1.203.140
 CSeq: 105 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[112] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc32c9d2b04
 From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:03 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: "vp84" <sip:8214@10.1.199.84>
 Remote-Party-ID: "vp84" <sip:8214@10.1.199.84>;party=called;screen=yes;privacy=off
 Content-Type: application/sdp
 Content-Length: 159

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.199.84
s=SIP Call
```

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```
c=IN IP4 10.1.201.183
t=0 0
m=audio 20008 RTP/AVP 9
a=rtpmap:9 G722/8000
a=ptime:20
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[113] ACK sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKcc2181ec8a
From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
Date: Fri, 17 Dec 2010 22:50:58 GMT
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[114] INVITE sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKcd75c0d611
From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:8200@10.81.54.134>
Remote-Party-ID: <sip:8200@10.81.54.134>;party=calling;screen=yes;privacy=off
Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[115] INVITE sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKceebd3f53
From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 105 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: "vp84" <sip:8214@10.81.54.134>
Remote-Party-ID: "vp84" <sip:8214@10.81.54.134>;party=calling;screen=yes;privacy=off
Contact: <sip:7001@10.81.54.134:5060;transport=tcp>;video;audio
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[116] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKcd75c0d611
From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
CSeq: 103 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[117] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKceebd3f53
From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
```


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Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 105 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[118] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKcd75c0d611
 From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: "vp84" <sip:8214@10.1.199.84>
 Remote-Party-ID: "vp84" <sip:8214@10.1.199.84>;party=called;screen=yes;privacy=off
 Content-Type: application/sdp
 Content-Length: 591

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.1.199.84
s=SIP Call
c=IN IP4 10.1.201.183
t=0 0
m=audio 4000 RTP/AVP 9 0 8 18
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
m=video 4002 RTP/AVP 97 96 34 31
b=TIAS:1000000
a=rtpmap:97 H264/90000
a=fmtp:97 profile-level-id=42000D
a=rtpmap:96 H263-1998/90000
a=fmtp:96 QCIF=1;CIF=1;MAXBR=7040;CUSTOM=352,240,1
a=rtpmap:34 H263/90000
a=fmtp:34 MAXBR=7040
a=rtpmap:31 H261/90000
a=fmtp:31 CIF=1;QCIF=1;MAXBR=7040;D=1
a=sendonly
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[119] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKceebd3f53
 From: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 105 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:8200@10.1.199.84>
 Remote-Party-ID: <sip:8200@10.1.199.84>;party=called;screen=yes;privacy=off
 Content-Type: application/sdp
 Content-Length: 335

```
v=0
o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.1.199.84
s=SIP Call
c=IN IP4 10.1.199.65
t=0 0
m=audio 4000 RTP/AVP 9 0 8 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
```

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```

a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

```

[120] ACK sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKcf73399c9e
From: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
Max-Forwards: 70
CSeq: 105 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 169

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.81.54.134
s=SIP Call
c=IN IP4 10.1.201.183
t=0 0
m=audio 4000 RTP/AVP 9
a=rtpmap:9 G722/8000
a=ptime:20
a=inactive

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

```

[121] SUBSCRIBE sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd037c92b93
From: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
CSeq: 106 SUBSCRIBE
Date: Fri, 17 Dec 2010 22:51:09 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.81.54.134:5060;transport=tcp>
P-Asserted-Identity: <sip:7001@10.81.54.134>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

```

```

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

```

```

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[X*#ABCD]</regex>
  </pattern>

```

```

</kpml-request>

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

```

[122] ACK sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd16488b961
From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 433

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
s=SIP Call
t=0 0
m=audio 4000 RTP/AVP 9
c=IN IP4 10.1.199.65
a=rtpmap:9 G722/8000

```

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```

a=ptime:20
a=inactive
m=video 0 RTP/AVP 31 34 96 97
c=IN IP4 0.0.0.0
a=rtpmap:31 H261/90000
a=fmtp:31
a=rtpmap:34 H263-1998/90000
a=fmtp:34 QCIF=1;CIF=1;MAXBR=7040;CUSTOM=352,240,1
a=rtpmap:96 H263-1998/90000
a=fmtp:96 MAXBR=7040
a=rtpmap:97 H264/90000
a=fmtp:97
a=inactive

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[123] SUBSCRIBE sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd21d0247fa
From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
CSeq: 104 SUBSCRIBE
Date: Fri, 17 Dec 2010 22:51:09 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.81.54.134:5060;transport=tcp>
P-Asserted-Identity: <sip:7001@10.81.54.134>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

```

```

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

```

```

  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>

```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[124] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd037c92b93
From: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
CSeq: 106 SUBSCRIBE
Content-Length: 0
Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
Expires: 7200

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[125] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2157db4fd37
From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
CSeq: 103 NOTIFY
Max-Forwards: 70
Date: Fri, 17 Dec 2010 22:51:09 GMT
User-Agent: Cisco-CUCM8.0
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[126] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2157db4fd37
From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
CSeq: 103 NOTIFY
Content-Length: 0

```

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[127] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd21d0247fa
 From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 104 SUBSCRIBE
 Content-Length: 0
 Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
 Expires: 7200

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[128] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21672a6e8d9
 From: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 To: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 101 NOTIFY
 Max-Forwards: 70
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 User-Agent: Cisco-CUCM8.0
 Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[129] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21672a6e8d9
 From: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 To: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[130] INVITE sip:7001@10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK217f6bdf3b
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 180
 Cisco-Guid: 0373731328-0000065536-0000000018-2251706634
 User-Agent: Cisco-CUCM8.0
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:8200@10.1.199.84>
 Remote-Party-ID: <sip:8200@10.1.199.84>;party=calling;screen=yes;privacy=off
 Content-Type: application/sdp
 Content-Length: 158

v=0
 o=CiscoSystemsCCM-SIP 2000 7 IN IP4 10.1.199.84
 s=SIP Call
 c=IN IP4 10.1.199.65
 t=0 0
 m=audio 29626 RTP/AVP 9
 a=rtpmap:9 G722/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[131] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK217f6bdf3b
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 104 INVITE
 Allow-Events: presence, kpml

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Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[132] INVITE sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd359491446
 From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 Supported: timer,resource-priority, replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 105 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:8200@10.81.54.134>
 Remote-Party-ID: <sip:8200@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>;video;audio
 Content-Type: application/sdp
 Content-Length: 422

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.81.54.134
 s=SIP Call
 t=0 0
 m=audio 29626 RTP/AVP 9
 c=IN IP4 10.1.199.65
 a=rtpmap:9 G722/8000
 a=ptime:20
 m=video 0 RTP/AVP 31 34 96 97
 c=IN IP4 0.0.0.0
 a=rtpmap:31 H261/90000
 a=fmtp:31
 a=rtpmap:34 H263-1998/90000
 a=fmtp:34 QCIF=1;CIF=1;MAXBR=7040;CUSTOM=352,240,1
 a=rtpmap:96 H263-1998/90000
 a=fmtp:96 MAXBR=7040
 a=rtpmap:97 H264/90000
 a=fmtp:97
 a=inactive

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[133] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd359491446
 From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 105 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[134] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd359491446
 From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 105 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: "vp84" <sip:8214@10.1.199.84>
 Remote-Party-ID: "vp84" <sip:8214@10.1.199.84>;party=called;screen=yes;privacy=off
 Content-Type: application/sdp
 Content-Length: 467

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.1.199.84

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```
s=SIP Call
c=IN IP4 10.1.201.183
t=0 0
m=audio 20010 RTP/AVP 9
a=rtpmap:9 G722/8000
a=ptime:20
m=video 0 RTP/AVP 97 96 34 31
b=TIAS:1000000
a=rtpmap:97 H264/90000
a=fmtp:97 profile-level-id=42000D
a=rtpmap:96 H263-1998/90000
a=fmtp:96 QCIF=1;CIF=1;MAXBR=7040;CUSTOM=352,240,1
a=rtpmap:34 H263/90000
a=fmtp:34 MAXBR=7040
a=rtpmap:31 H261/90000
a=fmtp:31 CIF=1;QCIF=1;MAXBR=7040;D=1
a=sendonly
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[135] ACK sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd47df4e29d
From: <sip:7001@10.81.54.134>;tag=23024-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
Max-Forwards: 70
CSeq: 105 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[136] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK217f6bdf3b
From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
To: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
CSeq: 104 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: timer
P-Asserted-Identity: "vp84" <sip:8214@10.81.54.134>
Remote-Party-ID: "vp84" <sip:8214@10.81.54.134>;party=called;screen=yes;privacy=off
Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 158
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 7 IN IP4 10.81.54.134
s=SIP Call
c=IN IP4 10.1.201.183
t=0 0
m=audio 20010 RTP/AVP 9
a=rtpmap:9 G722/8000
a=ptime:20
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[137] ACK sip:7001@10.81.54.134:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2187c7a16ad
From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
To: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
Max-Forwards: 70
CSeq: 104 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[138] BYE sip:7001@10.81.54.134:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2194ce365fb
From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
To: <sip:7001@10.81.54.134>;tag=23016-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
Date: Fri, 17 Dec 2010 22:51:09 GMT
Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
User-Agent: Cisco-CUCM8.0
```


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Max-Forwards: 70
 CSeq: 105 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[139] BYE sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd52ce190c8
 From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:09 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 CSeq: 106 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[140] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK2194ce365fb
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 105 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[141] SUBSCRIBE sip:8200@10.1.199.84:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd6586bd677
 From: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 107 SUBSCRIBE
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[142] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21afb95b84
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 User-Agent: Cisco-CUCM8.0
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[143] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21afb95b84
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 106 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[144] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd6586bd677
 From: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 To: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 107 SUBSCRIBE
 Content-Length: 0
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Expires: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[145] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21b75cb774c
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 107 NOTIFY
 Max-Forwards: 70
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 User-Agent: Cisco-CUCM8.0
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:8200@10.1.199.84:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[146] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21b75cb774c
 From: <sip:8200@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847521
 To: <sip:7001@10.81.54.134>;tag=23016~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230415
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 Call-ID: 1646b000-d0b1e949-49-8636510a@10.81.54.134
 CSeq: 107 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[147] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd52ce190c8
 From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 106 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[148] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21c2a129eb9
 From: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 To: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 User-Agent: Cisco-CUCM8.0
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[149] SUBSCRIBE sip:8214@10.1.199.84:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd720849bd9
 From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 107 SUBSCRIBE
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[150] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21c2a129eb9
 From: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 To: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 102 NOTIFY

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[151] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd720849bd9
 From: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 To: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 107 SUBSCRIBE
 Content-Length: 0
 Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
 Expires: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[152] NOTIFY sip:10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21d1b2bac9b
 From: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 To: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 103 NOTIFY
 Max-Forwards: 70
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 User-Agent: Cisco-CUCM8.0
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:8214@10.1.199.84:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[153] SIP/2.0 481 Subscription does not exist**

Via: SIP/2.0/TCP 10.1.199.84:5060;branch=z9hG4bK21d1b2bac9b
 From: <sip:8214@10.1.199.84>;tag=740efda9-e95f-4ff8-a5f9-aaf96f76636a-27847523
 To: <sip:7001@10.81.54.134>;tag=23024~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230418
 Date: Fri, 17 Dec 2010 22:51:15 GMT
 Call-ID: 1ba3fa80-d0b1e952-4d-8636510a@10.81.54.134
 CSeq: 103 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**28.9 Hold and Resume for a call between SIP phone and a SCCP TNP Device**

Title: Hold and Resume for a call between SIP phone and a SCCP TNP Device

Description:

Hold and Resume for a call between SIP phone and a SCCP TNP Device across an Early Offer enabled Inter Cluster SIP Trunk

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.81.54.134

Node = Unified CM2, IP = 10.1.197.55

Phone = A, Line = 7001, IP = 10.1.203.140, Model = SIP

Phone = B, Line = 1016, IP = 10.1.193.101, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 88.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Send send-recv SDP in mid-call

Scenario:

Phone A DN 7001 calls Phone B DN 1016 over the SIP Trunk by dialing 881016

Phone B DN 1016 Answers

Phone A DN 7001 presses Hold

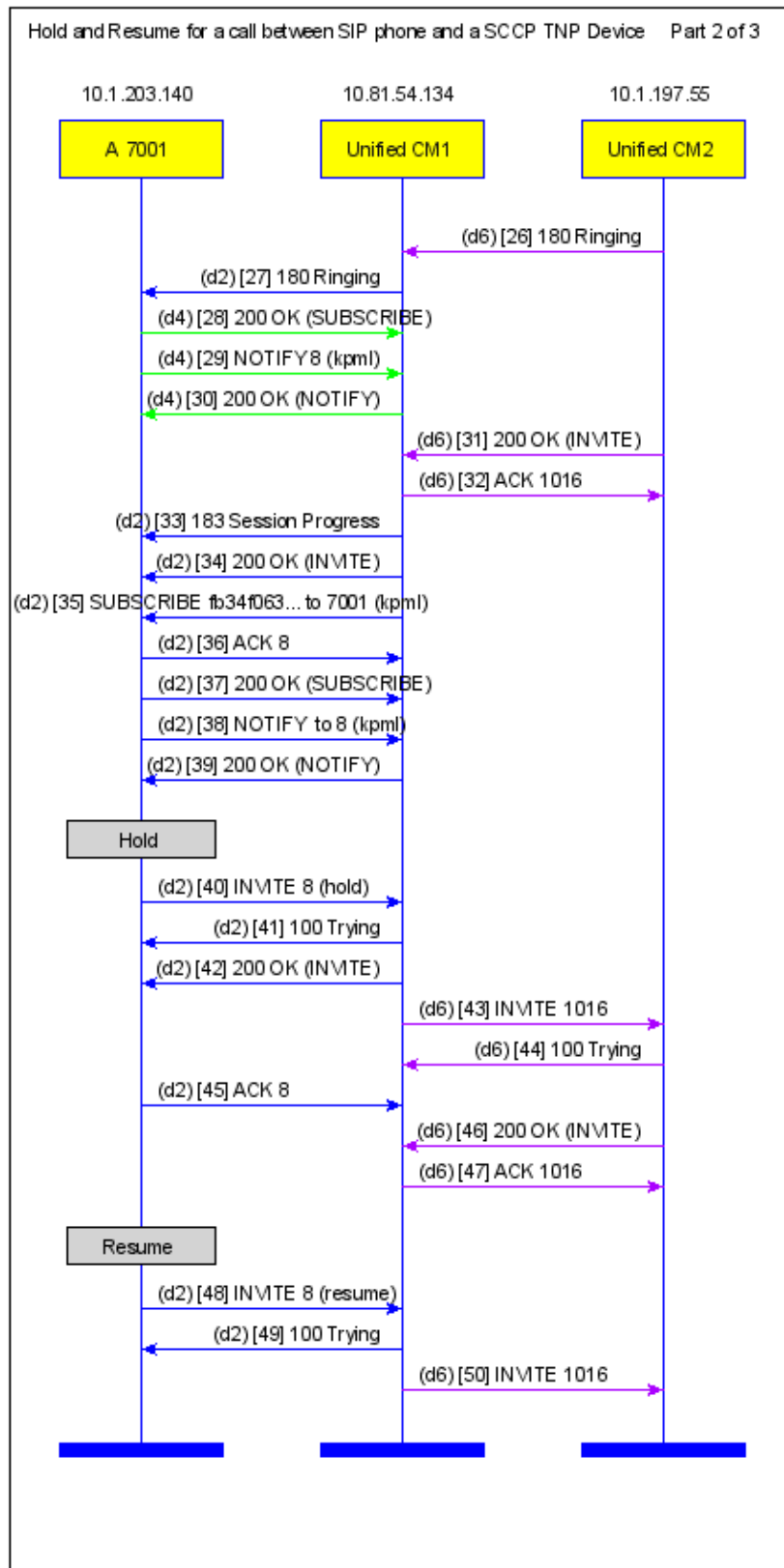
Phone A DN 7001 presses Resume

Phone A DN 7001 goes onHook

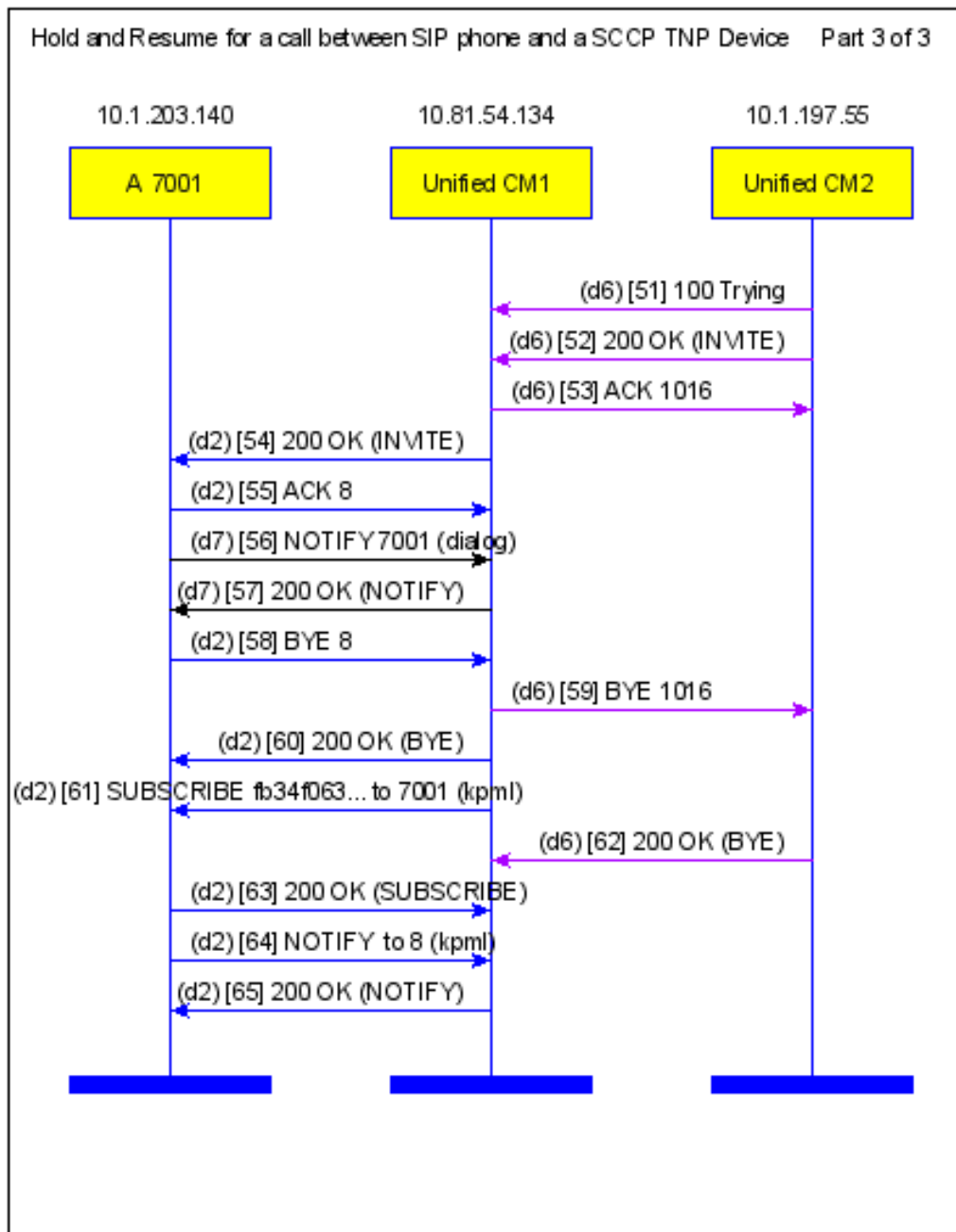
End of Scenario



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[diagram] Call-ID:[prev][next]

[1] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK27cae56d

To: <sip:7001@10.81.54.134>

From: <sip:7001@10.81.54.134>;tag=00141c807e4a02843cd60245-bfc710d1

Call-ID: a1309c1d-3f7028e9@10.1.203.140

Date: Wed, 17 Nov 2010 17:52:35 GMT

CSeq: 5 NOTIFY

Event: dialog

Subscription-State: active

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE

Content-Length: 357

Content-Type: application/dialog-info+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8" ?>

<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="2" state="partial" entity="sip:7001@10.1.203.140">

<dialog id="6" call-id="00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140" local-tag="00141c807e4a0283dc9d9c59-7796a215"><state>trying</state></dialog>

</dialog-info>

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK27cae56d

From: <sip:7001@10.81.54.134>;tag=00141c807e4a02843cd60245-bfc710d1

To: <sip:7001@10.81.54.134>;tag=341311459

Date: Wed, 17 Nov 2010 17:52:43 GMT

Call-ID: a1309c1d-3f7028e9@10.1.203.140

CSeq: 5 NOTIFY

Content-Length: 0

[diagram] Call-ID:[prev][next]

[3] INVITE sip:8@10.81.54.134;user=phone SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK761a6075

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215

To: <sip:8@10.81.54.134;user=phone>

Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140

Max-Forwards: 70

Date: Wed, 17 Nov 2010 17:52:36 GMT

CSeq: 101 INVITE

User-Agent: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>

Expires: 180

Accept: application/sdp

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO

Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes

Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1

Allow-Events: kpml,dialog

Content-Length: 332

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 26306 0 IN IP4 10.1.203.140

s=SIP Call

t=0 0

m=audio 28910 RTP/AVP 0 8 18 102 9 101

c=IN IP4 10.1.203.140

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:102 L16/16000

a=rtpmap:9 G722/8000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

[diagram] Call-ID:[prev][next]

[4] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK761a6075

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215

To: <sip:8@10.81.54.134;user=phone>

Date: Wed, 17 Nov 2010 17:52:44 GMT

Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140

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CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[5] REFER sip:7001@10.1.203.140:49538 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK131984dfb5
 From: <sip:7001@10.81.54.134>;tag=1327790930
 To: <sip:7001@10.1.203.140>
 Call-ID: 7997c380-ce41166c-9-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub
 Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 412

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140</callid>
    <localtag>34-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378</localtag>
    <remotetag>00141c807e4a0283dc9d9c59-7796a215</remotetag>
  </dialogid>
  <tonetype>DtOutsideDialTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[6] SUBSCRIBE sip:7001@10.1.203.140:49538 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK14ad6b651
 From: <sip:8@10.81.54.134>;tag=960190361
 To: <sip:7001@10.1.203.140>
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 CSeq: 101 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:52:44 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140; from-tag=00141c807e4a0283dc9d9c59-7796a215
 Expires: 7200
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 424

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern criticaldigittimer="1000" extradigittimer="500" interdigittimer="15000" persist="persist">
    <regex tag="Backspace OK">[x#*+]|bs</regex>
  </pattern>
```

```
</kpml-request>
```

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK131984dfb5
 From: <sip:7001@10.81.54.134>;tag=1327790930
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a0285b1cc61cd-ff421679
 Call-ID: 7997c380-ce41166c-9-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:36 GMT
 CSeq: 101 REFER
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][\[next\]](#)
[8] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK14ad6b651

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From: <sip:8@10.81.54.134>;tag=960190361
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:36 GMT
 CSeq: 101 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK7ae3a409
 To: <sip:8@10.81.54.134>;tag=960190361
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:36 GMT
 CSeq: 1000 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK7ae3a409
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 To: <sip:8@10.81.54.134>;tag=960190361
 Date: Wed, 17 Nov 2010 17:52:44 GMT
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 CSeq: 1000 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK8b83387d
 To: <sip:8@10.81.54.134>;tag=960190361
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:36 GMT
 CSeq: 1001 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK8b83387d
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 To: <sip:8@10.81.54.134>;tag=960190361
 Date: Wed, 17 Nov 2010 17:52:44 GMT
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 CSeq: 1001 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] REFER sip:7001@10.1.203.140:49538 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK156cae33a1
 From: <sip:7001@10.81.54.134>;tag=817967076
 To: <sip:7001@10.1.203.140>
 Call-ID: 7997c380-ce41166c-b-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub

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Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 404

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140</callid>
    <localtag>34-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378</localtag>
    <remotetag>00141c807e4a0283dc9d9c59-7796a215</remotetag>
  </dialogid>
  <tonetype>Dt_NoTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK156cae33a1
 From: <sip:7001@10.81.54.134>;tag=817967076
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a0287dac1d9d5-929dad01
 Call-ID: 7997c380-ce41166c-b-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:36 GMT
 CSeq: 101 REFER
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK99f82b99
 To: <sip:8@10.81.54.134>;tag=960190361
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:36 GMT
 CSeq: 1002 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
  suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK99f82b99
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 To: <sip:8@10.81.54.134>;tag=960190361
 Date: Wed, 17 Nov 2010 17:52:44 GMT
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 CSeq: 1002 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKe017a02d
 To: <sip:8@10.81.54.134>;tag=960190361
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:36 GMT
 CSeq: 1003 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
```

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```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="0" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKe017a02d
From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
To: <sip:8@10.81.54.134>;tag=960190361
Date: Wed, 17 Nov 2010 17:52:44 GMT
Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
CSeq: 1003 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKb1f5ab11
To: <sip:8@10.81.54.134>;tag=960190361
From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:52:37 GMT
CSeq: 1004 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKb1f5ab11
From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
To: <sip:8@10.81.54.134>;tag=960190361
Date: Wed, 17 Nov 2010 17:52:45 GMT
Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
CSeq: 1004 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK62818605
To: <sip:8@10.81.54.134>;tag=960190361
From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:52:37 GMT
CSeq: 1005 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="6" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK62818605
From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
To: <sip:8@10.81.54.134>;tag=960190361
Date: Wed, 17 Nov 2010 17:52:45 GMT
Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
CSeq: 1005 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1622a9eeda
From: <sip:8@10.81.54.134>;tag=960190361
To: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
```

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Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 CSeq: 102 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:52:45 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140; from-tag=00141c807e4a0283dc9d9c59-7796a215
 Expires: 0
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[24] INVITE sip:1016@10.1.197.55:5060 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK17f5b1f7c
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>
 Date: Wed, 17 Nov 2010 17:52:45 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 2049989120-0000065536-0000000005-2251706634
 Session-Expires: 1800
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 69
 Content-Type: application/sdp
 Content-Length: 359

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.203.140
 b=TIAS:64000
 t=0 0
 m=audio 28910 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[25] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK17f5b1f7c
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>
 Date: Wed, 17 Nov 2010 17:52:45 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[26] SIP/2.0 180 Ringing
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK17f5b1f7c
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
 Date: Wed, 17 Nov 2010 17:52:45 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@10.1.197.55>

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Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK761a6075
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:52:44 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecallinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1005; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1622a9eeda
 From: <sip:8@10.81.54.134>;tag=960190361
 To: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:37 GMT
 CSeq: 102 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK09877429
 To: <sip:8@10.81.54.134>;tag=960190361
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:52:37 GMT
 CSeq: 1006 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 222
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK09877429
 From: <sip:7001@10.1.203.140>;tag=00141c807e4a02864a6456a5-f63eb4f1
 To: <sip:8@10.81.54.134>;tag=960190361
 Date: Wed, 17 Nov 2010 17:52:45 GMT
 Call-ID: 7997c380-ce41166c-a-8636510a@10.81.54.134
 CSeq: 1006 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK17f5b1f7c
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
 Date: Wed, 17 Nov 2010 17:52:45 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer

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P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 215

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 21186 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] ACK sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1821215ce8
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
 Date: Wed, 17 Nov 2010 17:52:45 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[33] SIP/2.0 183 Session Progress
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK761a6075
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:52:44 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1005; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 21186 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[34] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK761a6075
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:52:44 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1005; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call

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```
c=IN IP4 10.1.193.101
t=0 0
m=audio 21186 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[35] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1918d775f5
From: <sip:8@10.81.54.134;user=phone>;tag=34-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
CSeq: 101 SUBSCRIBE
Date: Wed, 17 Nov 2010 17:52:50 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.81.54.134:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[36] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKba12093e
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
To: <sip:8@10.81.54.134;user=phone>;tag=34-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
Max-Forwards: 70
Date: Wed, 17 Nov 2010 17:52:43 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7970G/9.1.1
Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[37] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1918d775f5
From: <sip:8@10.81.54.134;user=phone>;tag=34-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
Date: Wed, 17 Nov 2010 17:52:43 GMT
CSeq: 101 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[38] NOTIFY sip:10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKb2a6290f
To: <sip:8@10.81.54.134;user=phone>;tag=34-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
Date: Wed, 17 Nov 2010 17:52:43 GMT
CSeq: 102 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[39] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKb2a6290f
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
```


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To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:52:51 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 102 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[40] INVITE sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK6f09c20c
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:52:44 GMT
 CSeq: 103 INVITE
 User-Agent: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>
 Accept: application/sdp
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Call-Info: <urn:x-cisco-remotecc:hold>
 Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
 Allow-Events: kpml, dialog
 Content-Length: 332
 Content-Type: application/sdp
 Content-Disposition: session;handling=optional

v=0
 o=Cisco-SIPUA 26306 1 IN IP4 10.1.203.140
 s=SIP Call
 t=0 0
 m=audio 28910 RTP/AVP 0 8 18 102 9 101
 c=IN IP4 10.1.203.140
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:102 L16/16000
 a=rtpmap:9 G722/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15
 a=sendonly

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[41] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK6f09c20c
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:52:52 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 103 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[42] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK6f09c20c
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:52:52 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1005; call-instance= 1
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 219

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 0.0.0.0
 t=0 0
 m=audio 21186 RTP/AVP 9 101

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```
a=rtptime:9 6722/8000
a=ptime:20
a=inactive
a=rtptime:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[43] INVITE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1a73a2c43e
From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
Date: Wed, 17 Nov 2010 17:52:52 GMT
Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
Supported: timer,resource-priority, replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:7001@10.81.54.134>
Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[44] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1a73a2c43e
From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
Date: Wed, 17 Nov 2010 17:52:52 GMT
Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
CSeq: 102 INVITE
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[45] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK4f5a88c5
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
Max-Forwards: 70
Date: Wed, 17 Nov 2010 17:52:44 GMT
CSeq: 103 ACK
User-Agent: Cisco-CP7970G/9.1.1
Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[46] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1a73a2c43e
From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
Date: Wed, 17 Nov 2010 17:52:52 GMT
Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Session-Expires: 1800;refresher=uas
Require: timer
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1016@10.1.197.55>
Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 325
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.1.197.55
s=SIP Call
c=IN IP4 10.1.193.101
t=0 0
m=audio 21378 RTP/AVP 9 0 8 18 101
```


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```

a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[47] ACK sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1b4f3a10e2
From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
Date: Wed, 17 Nov 2010 17:52:52 GMT
Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 189

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.81.54.134
s=SIP Call
c=IN IP4 10.81.54.134
t=0 0
m=audio 4000 RTP/AVP 0
a=X-cisco-media:umoh
a=rtpmap:0 PCMU/8000
a=ptime:20
a=sendonly

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[48] INVITE sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKa882f2f0
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
Max-Forwards: 70
Date: Wed, 17 Nov 2010 17:52:58 GMT
CSeq: 104 INVITE
User-Agent: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=tcp>
Accept: application/sdp
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO
Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
Call-Info: <urn:x-cisco-remotecc:resume>
Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.5.1
Allow-Events: kpml, dialog
Content-Length: 331
Content-Type: application/sdp
Content-Disposition: session;handling=optional

```

```

v=0
o=Cisco-SIPUA 8683 2 IN IP4 10.1.203.140
s=SIP Call
t=0 0
m=audio 28910 RTP/AVP 0 8 18 102 9 101
c=IN IP4 10.1.203.140
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no
a=rtpmap:102 L16/16000
a=rtpmap:9 G722/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[49] SIP/2.0 100 Trying

```

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKa882f2f0
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
Date: Wed, 17 Nov 2010 17:53:06 GMT

```

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Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 104 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[50] INVITE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1c54838823
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
 Date: Wed, 17 Nov 2010 17:53:06 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[51] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1c54838823
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
 Date: Wed, 17 Nov 2010 17:53:06 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 CSeq: 103 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[52] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1c54838823
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
 Date: Wed, 17 Nov 2010 17:53:06 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@10.1.197.55>
 Remote-Party-ID: <sip:1016@10.1.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@10.1.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 269

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.1.197.55
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 22764 RTP/AVP 9 0 8 18
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[53] ACK sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1d232b9dc5
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587

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Date: Wed, 17 Nov 2010 17:53:06 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 103 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 158

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.203.140
 t=0 0
 m=audio 28910 RTP/AVP 9
 a=rtpmap:9 G722/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[54] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKa882f2f0
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:53:06 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1005; call-instance= 1
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 158

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 10.1.193.101
 t=0 0
 m=audio 22764 RTP/AVP 9
 a=rtpmap:9 G722/8000
 a=ptime:20

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[55] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK16d32ffe
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:52:58 GMT
 CSeq: 104 ACK
 User-Agent: Cisco-CP7970G/9.1.1
 Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[56] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKc14af8c8
 To: <sip:7001@10.81.54.134>
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a0289b62db160-3adcf6f6
 Call-ID: 1388c238-600a0d8e@10.1.203.140
 Date: Wed, 17 Nov 2010 17:53:05 GMT
 CSeq: 6 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 361
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="3"
state="partial" entity="sip:7001@10.1.203.140">
<dialog id="6" call-id="00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140" local-
tag="00141c807e4a0283dc9d9c59-7796a215"><state>terminated</state></dialog>
</dialog-info>
```

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[57] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKc14af8c8
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a0289b62db160-3adcf6f6
 To: <sip:7001@10.81.54.134>;tag=492562716
 Date: Wed, 17 Nov 2010 17:53:13 GMT
 Call-ID: 1388c238-600a0d8e@10.1.203.140
 CSeq: 6 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[58] BYE sip:8@10.81.54.134:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK06020986
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:53:05 GMT
 CSeq: 105 BYE
 User-Agent: Cisco-CP7970G/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[59] BYE sip:1016@10.1.197.55:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1e652bc321
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
 Date: Wed, 17 Nov 2010 17:53:06 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[60] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bK06020986
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:53:13 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 105 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[61] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP SIP/2.0**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1f34f430ec
 From: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 102 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:53:13 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[62] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1e652bc321
 From: <sip:7001@10.81.54.134>;tag=38~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230379
 To: <sip:1016@10.1.197.55>;tag=75443~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175587
 Date: Wed, 17 Nov 2010 17:53:13 GMT
 Call-ID: 7a305a00-ce41166d-c-8636510a@10.81.54.134
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[63] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1f34f430ec
 From: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 Date: Wed, 17 Nov 2010 17:53:05 GMT
 CSeq: 102 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1

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Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[64] NOTIFY sip:10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKfcdce9d0
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 Date: Wed, 17 Nov 2010 17:53:05 GMT
 CSeq: 106 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@10.1.203.140:49538;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 214
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
  suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[65] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.1.203.140:49538;branch=z9hG4bKfcdce9d0
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a0283dc9d9c59-7796a215
 To: <sip:8@10.81.54.134;user=phone>;tag=34~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230378
 Date: Wed, 17 Nov 2010 17:53:13 GMT
 Call-ID: 00141c80-7e4a0008-dc0253c1-ec1d40bd@10.1.203.140
 CSeq: 106 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**28.10 Basic Call from SIP to a SCCP TNP Device**

Title: Basic Call from SIP to a SCCP TNP Device

Description:

Basic Call from SIP to a SCCP TNP Device via an Early Offer enabled Inter Cluster SIP Trunk

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via an inter cluster SIP trunk.

Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.81.54.134

Node = Unified CM2, IP = 10.1.197.55

Phone = A, Line = 7001, IP = 10.1.203.140, Model = SIP

Phone = B, Line = 1016, IP = 10.1.193.101, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 88.XXXX

SIP Trunk between Unified CM1 & Unified CM2 is enabled for Early Offer

Scenario:

Phone A DN 7001 calls Phone B DN 1016 over the SIP Trunk by dialing 881016

Phone B DN 1016 Answers

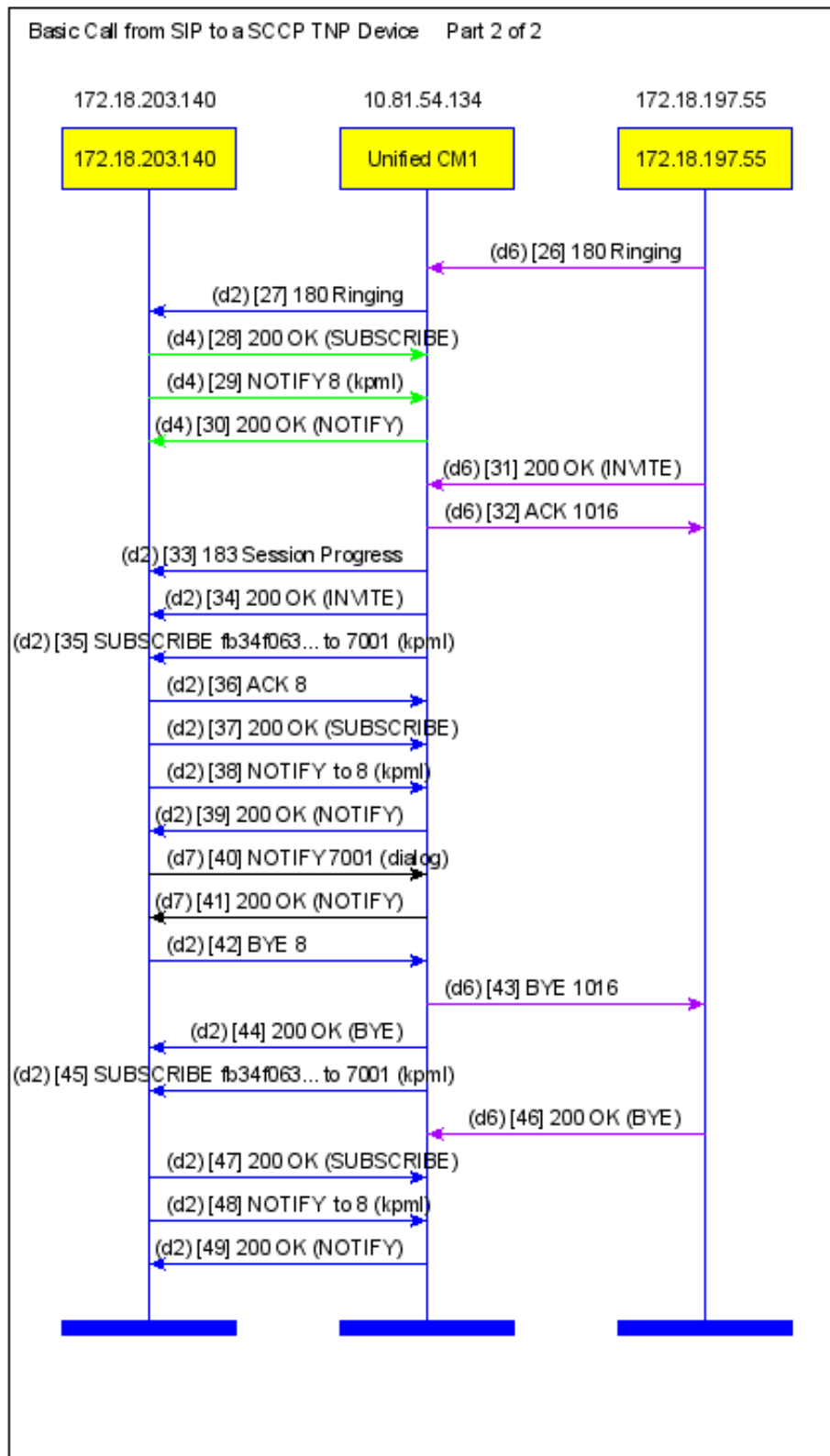
Phone A DN 7001 goes onHook

End of Scenario

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[diagram] Call-ID:[prev][next]

[1] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK897297ad

To: <sip:7001@10.81.54.134>

From: <sip:7001@10.81.54.134>;tag=00141c807e4a027bde523cc5-bd199471

Call-ID: bd5f2e1d-ad30f889@172.18.203.140

Date: Wed, 17 Nov 2010 17:47:06 GMT

CSeq: 3 NOTIFY

Event: dialog

Subscription-State: active

Max-Forwards: 70

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE

Content-Length: 357

Content-Type: application/dialog-info+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8" ?>

<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="0" state="partial" entity="sip:7001@172.18.203.140">

<dialog id="5" call-id="00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140" local-tag="00141c807e4a027a727565f9-b891f555"><state>trying</state></dialog>

</dialog-info>

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK897297ad

From: <sip:7001@10.81.54.134>;tag=00141c807e4a027bde523cc5-bd199471

To: <sip:7001@10.81.54.134>;tag=1201154816

Date: Wed, 17 Nov 2010 17:47:14 GMT

Call-ID: bd5f2e1d-ad30f889@172.18.203.140

CSeq: 3 NOTIFY

Content-Length: 0

[diagram] Call-ID:[prev][next]

[3] INVITE sip:8@10.81.54.134;user=phone SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK911d6fd1

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555

To: <sip:8@10.81.54.134;user=phone>

Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140

Max-Forwards: 70

Date: Wed, 17 Nov 2010 17:47:09 GMT

CSeq: 101 INVITE

User-Agent: Cisco-CP7970G/9.1.1

Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=tcp>

Expires: 180

Accept: application/sdp

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE,INFO

Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes

Supported: replaces,join,sdp-anat,norefersub,extended-refer,X-cisco-callinfo,X-cisco-serviceuri,X-cisco-escapecodes,X-cisco-service-control,X-cisco-srtp-fallback,X-cisco-monrec,X-cisco-config,X-cisco-sis-5.1.0,X-cisco-xsi-8.5.1

Allow-Events: kpml,dialog

Content-Length: 331

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 8208 0 IN IP4 172.18.203.140

s=SIP Call

t=0 0

m=audio 24954 RTP/AVP 0 8 18 102 9 101

c=IN IP4 172.18.203.140

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:102 L16/16000

a=rtpmap:9 G722/8000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

[diagram] Call-ID:[prev][next]

[4] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK911d6fd1

From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555

To: <sip:8@10.81.54.134;user=phone>

Date: Wed, 17 Nov 2010 17:47:17 GMT

Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140

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CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)
[5] REFER sip:7001@172.18.203.140:49538 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKa7577549
 From: <sip:7001@10.81.54.134>;tag=329040351
 To: <sip:7001@172.18.203.140>
 Call-ID: b6af8600-ce411525-5-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub
 Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 412

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140</callid>
    <localtag>23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376</localtag>
    <remotetag>00141c807e4a027a727565f9-b891f555</remotetag>
  </dialogid>
  <tonetype>DtOutsideDialTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)
[6] SUBSCRIBE sip:7001@172.18.203.140:49538 SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb4c962494
 From: <sip:8@10.81.54.134>;tag=740070289
 To: <sip:7001@172.18.203.140>
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 CSeq: 101 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:47:17 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140; from-tag=00141c807e4a027a727565f9-b891f555
 Expires: 7200
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Accept: application/kpml-response+xml
 Max-Forwards: 70
 Content-Type: application/kpml-request+xml
 Content-Length: 424

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

  <pattern criticaldigittimer="1000" extradigittimer="500" interdigittimer="15000" persist="persist">
    <regex tag="Backspace OK">[x#*+]|bs</regex>
  </pattern>

</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)
[7] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKa7577549
 From: <sip:7001@10.81.54.134>;tag=329040351
 To: <sip:7001@172.18.203.140>;tag=00141c807e4a027dad6406e9-5f96a0a5
 Call-ID: b6af8600-ce411525-5-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:10 GMT
 CSeq: 101 REFER
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)
[8] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKb4c962494

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From: <sip:8@10.81.54.134>;tag=740070289
 To: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:10 GMT
 CSeq: 101 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Expires: 7200
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKfe4d5515
 To: <sip:8@10.81.54.134>;tag=740070289
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:10 GMT
 CSeq: 1000 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKfe4d5515
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 To: <sip:8@10.81.54.134>;tag=740070289
 Date: Wed, 17 Nov 2010 17:47:18 GMT
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 CSeq: 1000 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKebc10ab9
 To: <sip:8@10.81.54.134>;tag=740070289
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:10 GMT
 CSeq: 1001 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="8" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKebc10ab9
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 To: <sip:8@10.81.54.134>;tag=740070289
 Date: Wed, 17 Nov 2010 17:47:18 GMT
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 CSeq: 1001 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] REFER sip:7001@172.18.203.140:49538 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc7f32adb2
 From: <sip:7001@10.81.54.134>;tag=1061576301
 To: <sip:7001@172.18.203.140>
 Call-ID: b7481c80-ce411526-7-8636510a@10.81.54.134
 CSeq: 101 REFER
 Max-Forwards: 70
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 User-Agent: Cisco-CUCM8.5
 Expires: 0
 Refer-To: cid:1234567890@10.81.54.134
 Content-Id: <1234567890@10.81.54.134>
 Require: norefersub

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Content-Type: application/x-cisco-remotecc-request+xml
 Referred-By: <sip:7001@10.81.54.134>
 Content-Length: 404

<x-cisco-remotecc-request>

```
<playtonereq>
  <dialogid>
    <callid>00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140</callid>
    <localtag>23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376</localtag>
    <remotetag>00141c807e4a027a727565f9-b891f555</remotetag>
  </dialogid>
  <tonetype>Dt_NoTone</tonetype>
  <direction>user</direction>
</playtonereq>
```

</x-cisco-remotecc-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKc7f32adb2
 From: <sip:7001@10.81.54.134>;tag=1061576301
 To: <sip:7001@172.18.203.140>;tag=00141c807e4a027f531bd231-675ac46d
 Call-ID: b7481c80-ce411526-7-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:10 GMT
 CSeq: 101 REFER
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKce1f2a85
 To: <sip:8@10.81.54.134>;tag=740070289
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:11 GMT
 CSeq: 1002 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
  suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKce1f2a85
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 To: <sip:8@10.81.54.134>;tag=740070289
 Date: Wed, 17 Nov 2010 17:47:19 GMT
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 CSeq: 1002 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKfbc11749
 To: <sip:8@10.81.54.134>;tag=740070289
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:12 GMT
 CSeq: 1003 NOTIFY
 Event: kpml
 Subscription-State: active; expires=7200
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 209
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
```

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```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="0" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKfbc11749
From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
To: <sip:8@10.81.54.134>;tag=740070289
Date: Wed, 17 Nov 2010 17:47:20 GMT
Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
CSeq: 1003 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK80139fdd
To: <sip:8@10.81.54.134>;tag=740070289
From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:47:12 GMT
CSeq: 1004 NOTIFY
Event: kpml
Subscription-State: active; expires=7195
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="1" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK80139fdd
From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
To: <sip:8@10.81.54.134>;tag=740070289
Date: Wed, 17 Nov 2010 17:47:20 GMT
Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
CSeq: 1004 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK5528b6c1
To: <sip:8@10.81.54.134>;tag=740070289
From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
Date: Wed, 17 Nov 2010 17:47:13 GMT
CSeq: 1005 NOTIFY
Event: kpml
Subscription-State: active; expires=7195
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 209
Content-Type: application/kpml-response+xml
Content-Disposition: session;handling=required
```

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="200" text="OK"
suppressed="false" forced_flush="false" digits="6" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK5528b6c1
From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
To: <sip:8@10.81.54.134>;tag=740070289
Date: Wed, 17 Nov 2010 17:47:20 GMT
Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
CSeq: 1005 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd4ac04fd8
From: <sip:8@10.81.54.134>;tag=740070289
To: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
```

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Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 CSeq: 102 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:47:20 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml; call-id=00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140; from-tag=00141c807e4a027a727565f9-b891f555
 Expires: 0
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[24] INVITE sip:1016@172.18.197.55:5060 SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKe5cf3859
 From: <sip:7001@10.81.54.134>;tag=27~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230377
 To: <sip:1016@172.18.197.55>
 Date: Wed, 17 Nov 2010 17:47:20 GMT
 Call-ID: b8794980-ce411528-8-8636510a@10.81.54.134
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.81.54.134:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3094956416-0000065536-0000000004-2251706634
 Session-Expires: 1800
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 Remote-Party-ID: <sip:7001@10.81.54.134>;party=calling;screen=yes;privacy=off
 Contact: <sip:7001@10.81.54.134:5060;transport=tcp>
 Max-Forwards: 69
 Content-Type: application/sdp
 Content-Length: 359

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 172.18.203.140
 b=TIAS:64000
 t=0 0
 m=audio 24954 RTP/AVP 9 0 8 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[25] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKe5cf3859
 From: <sip:7001@10.81.54.134>;tag=27~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230377
 To: <sip:1016@172.18.197.55>
 Date: Wed, 17 Nov 2010 17:47:20 GMT
 Call-ID: b8794980-ce411528-8-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[26] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKe5cf3859
 From: <sip:7001@10.81.54.134>;tag=27~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230377
 To: <sip:1016@172.18.197.55>;tag=75410~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175585
 Date: Wed, 17 Nov 2010 17:47:20 GMT
 Call-ID: b8794980-ce411528-8-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1016@172.18.197.55>

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Remote-Party-ID: <sip:1016@172.18.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@172.18.197.55:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK911d6fd1
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
 To: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 Date: Wed, 17 Nov 2010 17:47:17 GMT
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecallinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1004; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKd4ac04fd8
 From: <sip:8@10.81.54.134>;tag=740070289
 To: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:13 GMT
 CSeq: 102 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] NOTIFY sip:8@10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK159ceff5
 To: <sip:8@10.81.54.134>;tag=740070289
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 Date: Wed, 17 Nov 2010 17:47:13 GMT
 CSeq: 1006 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 222
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="Backspace OK"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK159ceff5
 From: <sip:7001@172.18.203.140>;tag=00141c807e4a027e9d6d4861-df3ec5fd
 To: <sip:8@10.81.54.134>;tag=740070289
 Date: Wed, 17 Nov 2010 17:47:21 GMT
 Call-ID: b6af8600-ce411525-6-8636510a@10.81.54.134
 CSeq: 1006 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKe5cf3859
 From: <sip:7001@10.81.54.134>;tag=27-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230377
 To: <sip:1016@172.18.197.55>;tag=75410-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175585
 Date: Wed, 17 Nov 2010 17:47:20 GMT
 Call-ID: b8794980-ce411528-8-8636510a@10.81.54.134
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer

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P-Asserted-Identity: <sip:1016@172.18.197.55>
 Remote-Party-ID: <sip:1016@172.18.197.55>;party=called;screen=yes;privacy=off
 Contact: <sip:1016@172.18.197.55:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 215

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 172.18.197.55
 s=SIP Call
 c=IN IP4 172.18.193.101
 t=0 0
 m=audio 21522 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[32] ACK sip:1016@172.18.197.55:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bKff273735
 From: <sip:7001@10.81.54.134>;tag=27~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230377
 To: <sip:1016@172.18.197.55>;tag=75410~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175585
 Date: Wed, 17 Nov 2010 17:47:20 GMT
 Call-ID: b8794980-ce411528-8-8636510a@10.81.54.134
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[33] SIP/2.0 183 Session Progress
 Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK911d6fd1
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
 To: <sip:8@10.81.54.134;user=phone>;tag=23~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 Date: Wed, 17 Nov 2010 17:47:17 GMT
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-1004; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call
 c=IN IP4 172.18.193.101
 t=0 0
 m=audio 21522 RTP/AVP 9 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[34] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK911d6fd1
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
 To: <sip:8@10.81.54.134;user=phone>;tag=23~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 Date: Wed, 17 Nov 2010 17:47:17 GMT
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-1004; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:1016@10.81.54.134>;party=called;screen=yes;privacy=off
 Contact: <sip:8@10.81.54.134:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.81.54.134
 s=SIP Call

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```
c=IN IP4 172.18.193.101
t=0 0
m=audio 21522 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[35] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK105f319c36
From: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
CSeq: 101 SUBSCRIBE
Date: Wed, 17 Nov 2010 17:47:26 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.81.54.134:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[36] ACK sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKc0bb8f19
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
To: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
Max-Forwards: 70
Date: Wed, 17 Nov 2010 17:47:18 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7970G/9.1.1
Remote-Party-ID: "7001" <sip:7001@10.81.54.134>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[37] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK105f319c36
From: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
Date: Wed, 17 Nov 2010 17:47:18 GMT
CSeq: 101 SUBSCRIBE
Server: Cisco-CP7970G/9.1.1
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[38] NOTIFY sip:10.81.54.134:5060 SIP/2.0

```
Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK2a1d354d
To: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
Date: Wed, 17 Nov 2010 17:47:18 GMT
CSeq: 102 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[39] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK2a1d354d
From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
```

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To: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 Date: Wed, 17 Nov 2010 17:47:26 GMT
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[40] NOTIFY sip:7001@10.81.54.134 SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK85e76f27
 To: <sip:7001@10.81.54.134>
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a028070d8d9f3-784e52f1
 Call-ID: afb9858f-7d733195@172.18.203.140
 Date: Wed, 17 Nov 2010 17:47:22 GMT
 CSeq: 4 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 361
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="1"
state="partial" entity="sip:7001@172.18.203.140">
<dialog id="5" call-id="00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140" local-
tag="00141c807e4a027a727565f9-b891f555"><state>terminated</state></dialog>
</dialog-info>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[41] SIP/2.0 200 OK

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK85e76f27
 From: <sip:7001@10.81.54.134>;tag=00141c807e4a028070d8d9f3-784e52f1
 To: <sip:7001@10.81.54.134>;tag=1624173344
 Date: Wed, 17 Nov 2010 17:47:30 GMT
 Call-ID: afb9858f-7d733195@172.18.203.140
 CSeq: 4 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[42] BYE sip:8@10.81.54.134:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK959739
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
 To: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 Max-Forwards: 70
 Date: Wed, 17 Nov 2010 17:47:22 GMT
 CSeq: 103 BYE
 User-Agent: Cisco-CP7970G/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[43] BYE sip:1016@172.18.197.55:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK11391f0e05
 From: <sip:7001@10.81.54.134>;tag=27-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230377
 To: <sip:1016@172.18.197.55>;tag=75410-e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175585
 Date: Wed, 17 Nov 2010 17:47:20 GMT
 Call-ID: b8794980-ce411528-8-8636510a@10.81.54.134
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:7001@10.81.54.134>
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[44] SIP/2.0 200 OK

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bK959739
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
 To: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 Date: Wed, 17 Nov 2010 17:47:30 GMT
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)

[45] SUBSCRIBE sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1249c15e8
 From: <sip:8@10.81.54.134;user=phone>;tag=23-d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555

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Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 CSeq: 102 SUBSCRIBE
 Date: Wed, 17 Nov 2010 17:47:30 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.81.54.134:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[46] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK11391f0e05
 From: <sip:7001@10.81.54.134>;tag=27~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230377
 To: <sip:1016@172.18.197.55>;tag=75410~e8eb181c-e5c7-4bb9-a774-8ae601f45812-23175585
 Date: Wed, 17 Nov 2010 17:47:30 GMT
 Call-ID: b8794980-ce411528-8-8636510a@10.81.54.134
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[47] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.81.54.134:5060;branch=z9hG4bK1249c15e8
 From: <sip:8@10.81.54.134;user=phone>;tag=23~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 To: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 Date: Wed, 17 Nov 2010 17:47:22 GMT
 CSeq: 102 SUBSCRIBE
 Server: Cisco-CP7970G/9.1.1
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[48] NOTIFY sip:10.81.54.134:5060 SIP/2.0

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKfa06c65b
 To: <sip:8@10.81.54.134;user=phone>;tag=23~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 Date: Wed, 17 Nov 2010 17:47:22 GMT
 CSeq: 104 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:fb34f063-1f09-172e-aef6-71b6057c8bdd@172.18.203.140:49538;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 214
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[49] SIP/2.0 200 OK

Via: SIP/2.0/TCP 172.18.203.140:49538;branch=z9hG4bKfa06c65b
 From: "7001" <sip:7001@10.81.54.134>;tag=00141c807e4a027a727565f9-b891f555
 To: <sip:8@10.81.54.134;user=phone>;tag=23~d138edfe-79fb-4db2-9d4a-3737bda378a5-26230376
 Date: Wed, 17 Nov 2010 17:47:30 GMT
 Call-ID: 00141c80-7e4a0007-321a5da1-ffdb3f3d@172.18.203.140
 CSeq: 104 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**29. OptionsPing****29.1 SIP OPTIONS Ping with 200 response**

Title: SIP OPTIONS Ping with 200 response

Description:

The following call flow illustrates the SIP messaging that takes place between Cisco Unified CM and SIP device via a SIP trunk.

Cisco Unified CM sent out OPTIONS to SIP device. OPTIONS is used to detect SIP device's availability.

Configuration:

Node = Unified CM, IP = 10.1.199.9

Node = SIP device, IP = 10.1.199.123

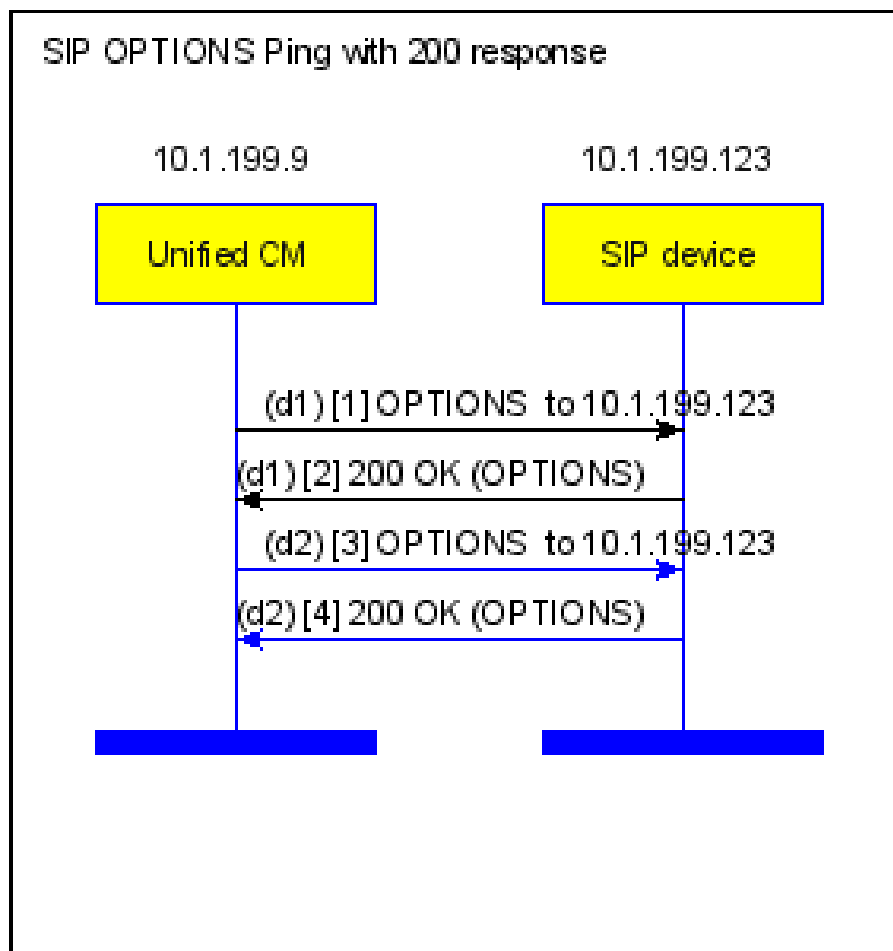
SIP Trunk on Unified CM has "SIP OPTIONS Ping" enabled.

Scenario:

Unified CM sends OPTIONS to SIP device.

SIP device sends "200 ok" back.

End of Scenario

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[diagram] Call-ID:[prev][next]
[1] **OPTIONS sip:10.1.199.123:5060 SIP/2.0**
Via: SIP/2.0/TCP 10.1.199.9:5060;branch=z9hG4bK1272ed9a862
From: <sip:10.1.199.9>;tag=844455026
To: <sip:10.1.199.123>
Date: Mon, 01 Nov 2010 20:54:39 GMT
Call-ID: 3cd49700-ccf1290f-38-9c712ac@10.1.199.9
User-Agent: Cisco-CUCM8.5
CSeq: 101 OPTIONS
Contact: <sip:10.1.199.9:5060;transport=tcp>
Max-Forwards: 0
Content-Length: 0

[diagram] Call-ID:[prev][next]
[2] **SIP/2.0 200 OK**
Via: SIP/2.0/TCP 10.1.199.9:5060;branch=z9hG4bK1272ed9a862
From: <sip:10.1.199.9>;tag=844455026
To: <sip:10.1.199.123>;tag=2023837839
Date: Mon, 01 Nov 2010 20:54:39 GMT
Call-ID: 3cd49700-ccf1290f-38-9c712ac@10.1.199.9
CSeq: 101 OPTIONS
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Content-Length: 0

[diagram] Call-ID:[prev][next]
[3] **OPTIONS sip:10.1.199.123:5060 SIP/2.0**
Via: SIP/2.0/TCP 10.1.199.9:5060;branch=z9hG4bK1281c62a4d6
From: <sip:10.1.199.9>;tag=24288652
To: <sip:10.1.199.123>
Date: Mon, 01 Nov 2010 20:54:55 GMT
Call-ID: 465dff00-ccf1291f-39-9c712ac@10.1.199.9
User-Agent: Cisco-CUCM8.5
CSeq: 101 OPTIONS
Contact: <sip:10.1.199.9:5060;transport=tcp>
Max-Forwards: 0
Content-Length: 0

[diagram] Call-ID:[prev][next]
[4] **SIP/2.0 200 OK**
Via: SIP/2.0/TCP 10.1.199.9:5060;branch=z9hG4bK1281c62a4d6
From: <sip:10.1.199.9>;tag=24288652
To: <sip:10.1.199.123>;tag=1319352622
Date: Mon, 01 Nov 2010 20:54:55 GMT
Call-ID: 465dff00-ccf1291f-39-9c712ac@10.1.199.9
CSeq: 101 OPTIONS
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Content-Length: 0

CISCO CONFIDENTIAL**29.2 SIP OPTIONS Ping with 503 response**

Title: SIP OPTIONS Ping with 503 response

Description:

The following call flow illustrates the SIP messaging that takes place between Cisco Unified CM and SIP device via a SIP trunk.

Cisco Unified CM sent out OPTIONS to SIP device. OPTIONS is used to detect SIP device's availability.

Configuration:

Node = Unified CM, IP = 10.1.199.9

Node = SIP device, IP = 10.1.201.228

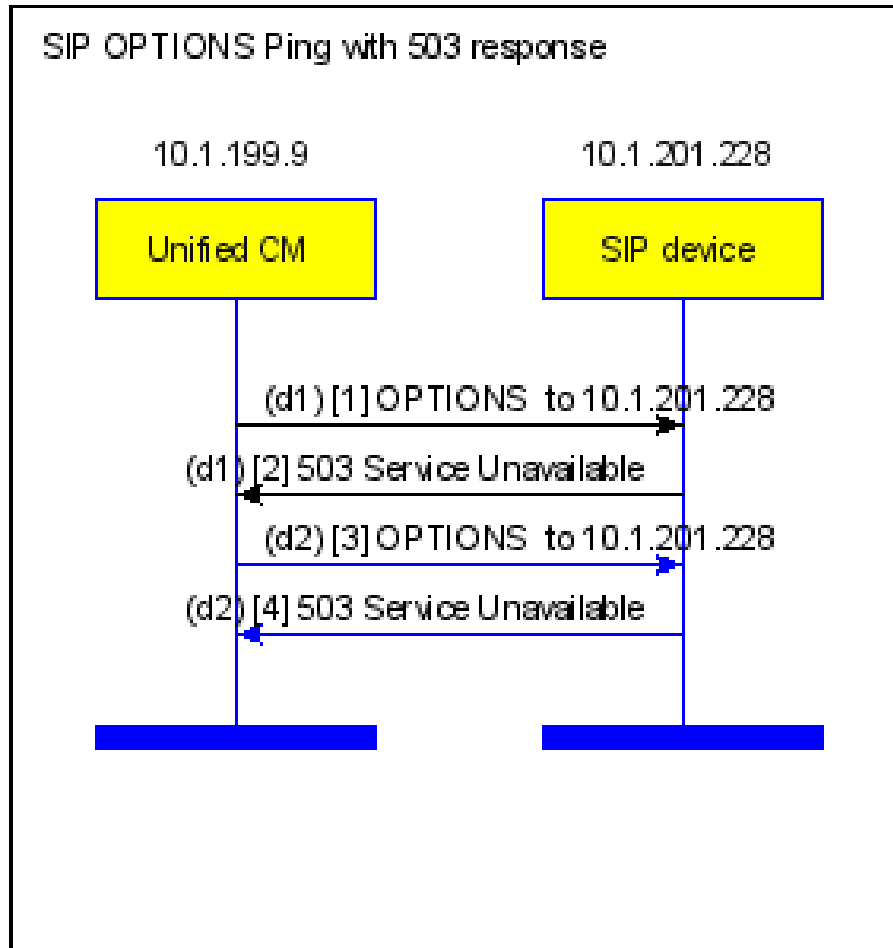
SIP Trunk on Unified CM has "SIP OPTIONS Ping" enabled.

Scenario:

Unified CM sends OPTIONS to SIP device.

SIP device sends "503 Service Unavailable" back.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] OPTIONS sip:10.1.201.228:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.1.199.9:5060;branch=z9hG4bK12f5304098e
From: <sip:10.1.199.9>;tag=420139128
To: <sip:10.1.201.228>
Date: Mon, 01 Nov 2010 20:58:25 GMT
Call-ID: c3897400-ccf129f1-40-9c712ac@10.1.199.9
User-Agent: Cisco-CUCM8.5
CSeq: 101 OPTIONS
Contact: <sip:10.1.199.9:5060;transport=tcp>
Max-Forwards: 0
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 503 Service Unavailable**

Via: SIP/2.0/TCP 10.1.199.9:5060;branch=z9hG4bK12f5304098e
From: <sip:10.1.199.9>;tag=420139128
To: <sip:10.1.201.228>;tag=1778364897
Date: Mon, 01 Nov 2010 20:58:25 GMT
Call-ID: c3897400-ccf129f1-40-9c712ac@10.1.199.9
CSeq: 101 OPTIONS
Warning: 399 rtp-ccm6 "Unable to find a device handler for the request received on port 5060 from 10.1.199.9"
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] OPTIONS sip:10.1.201.228:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.1.199.9:5060;branch=z9hG4bK1301a4689f3
From: <sip:10.1.199.9>;tag=227744073
To: <sip:10.1.201.228>
Date: Mon, 01 Nov 2010 20:58:41 GMT
Call-ID: cd12dc00-ccf12a01-41-9c712ac@10.1.199.9
User-Agent: Cisco-CUCM8.5
CSeq: 101 OPTIONS
Contact: <sip:10.1.199.9:5060;transport=tcp>
Max-Forwards: 0
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 503 Service Unavailable**

Via: SIP/2.0/TCP 10.1.199.9:5060;branch=z9hG4bK1301a4689f3
From: <sip:10.1.199.9>;tag=227744073
To: <sip:10.1.201.228>;tag=948922534
Date: Mon, 01 Nov 2010 20:58:41 GMT
Call-ID: cd12dc00-ccf12a01-41-9c712ac@10.1.199.9
CSeq: 101 OPTIONS
Warning: 399 rtp-ccm6 "Unable to find a device handler for the request received on port 5060 from 10.1.199.9"
Content-Length: 0

CISCO CONFIDENTIAL**30. QSIGTunnelingOverSIPT****30.1 Basic Call Via QSig Enabled**

Title: Basic Call Via QSig Enabled

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via QSIG enabled SIP trunk. Cisco Unified CM1 sent out the initial INVITE.

Configuration:

Node = Unified CM1, IP = 10.78.104.222

Node = Unified CM2, IP = 10.78.104.224

Phone = A, Line = 3003, IP = 10.10.199.66, Model = SCCP

Phone = B, Line = 1003, IP = 10.10.199.179, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 1XXX

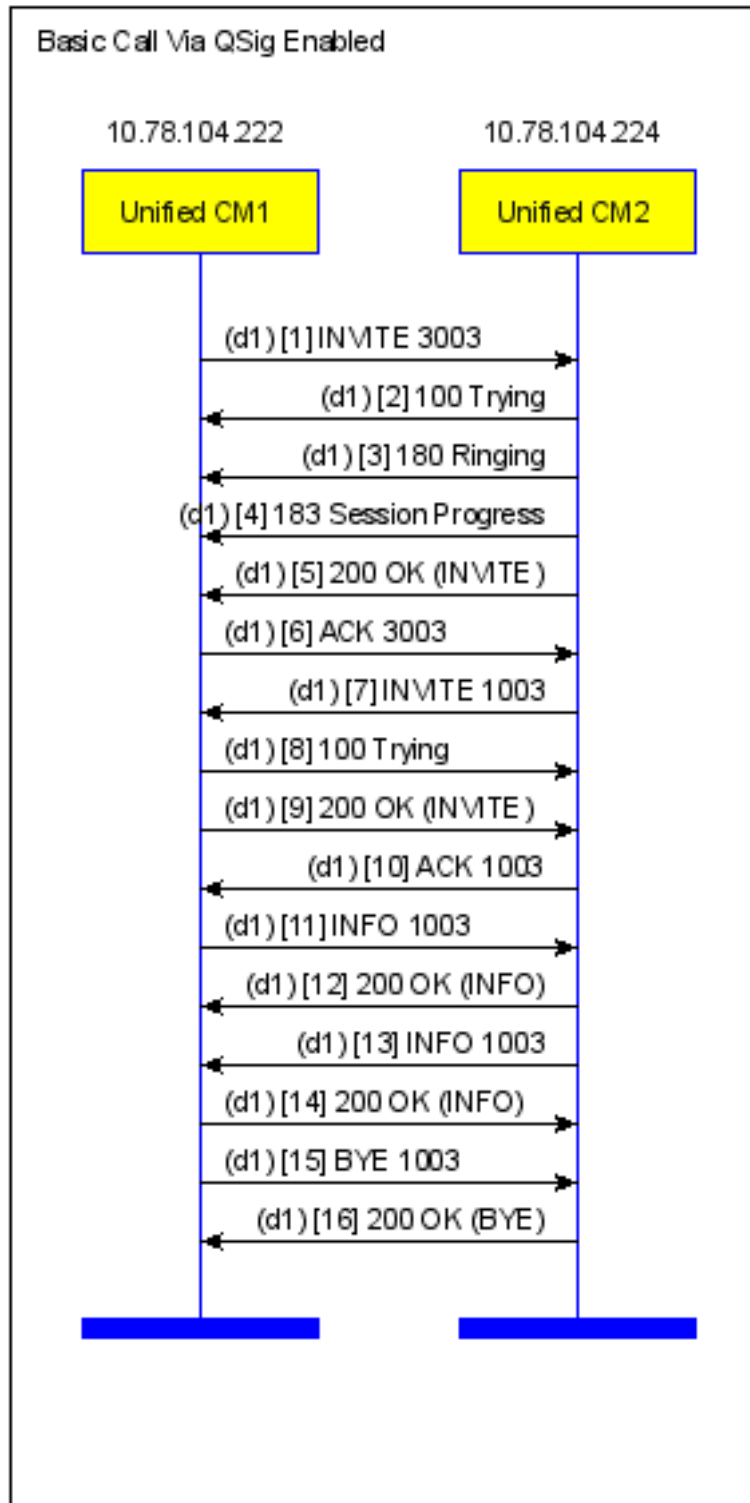
Scenario:

Phone A DN 3003 calls Phone B DN 1003 over the SIP Trunk by dialing 1003

Phone B DN 1003 Answers

Phone A DN 3003 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:3003@10.78.104.224:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2a2ca51d0b
 From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 To: <sip:3003@10.78.104.224>
 Date: Fri, 19 Nov 2010 10:49:47 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.78.104.222:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 3096206592-00000065536-0000000011-3731377674
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 54

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2a2ca51d0b
 From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 To: <sip:3003@10.78.104.224>
 Date: Fri, 19 Nov 2010 10:49:47 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2a2ca51d0b
 From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 To: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 Date: Fri, 19 Nov 2010 10:49:47 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 28

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2a2ca51d0b
 From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 To: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 Date: Fri, 19 Nov 2010 10:49:47 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: multipart/mixed;boundary=uniqueBoundary
 Mime-Version: 1.0
 Content-Length: 450

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```
--uniqueBoundary
Content-Type: application/sdp
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.66.169
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

```
--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 7
```

```
--uniqueBoundary--
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2a2ca51d0b
From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
To: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
Date: Fri, 19 Nov 2010 10:49:47 GMT
Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:3003@10.78.104.224>
Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: multipart/mixed;boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 480
```

```
--uniqueBoundary
Content-Type: application/sdp
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.66.169
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

```
--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 36
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2b62cc0363
From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
To: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
Date: Fri, 19 Nov 2010 10:49:47 GMT
Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
Max-Forwards: 70
```

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CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 249

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 21436 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=recvnly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[7] INVITE sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4142324362
 From: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 To: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 Date: Fri, 19 Nov 2010 10:49:50 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 3096206592-0000065536-0000000011-3731377674
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 239

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 64.103.237.99
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 24582 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[8] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4142324362
 From: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 To: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 Date: Fri, 19 Nov 2010 10:49:50 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)
[9] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4142324362
 From: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 To: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 Date: Fri, 19 Nov 2010 10:49:50 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback

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Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 237

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 21436 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4261941eb9
 From: <sip:3003@10.78.104.222>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 To: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 Date: Fri, 19 Nov 2010 10:49:50 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INFO sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2cc06a4de
 From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 To: <sip:3003@10.78.104.222>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 Date: Fri, 19 Nov 2010 10:49:50 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 102 INFO
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2cc06a4de
 From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 To: <sip:3003@10.78.104.222>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 Date: Fri, 19 Nov 2010 10:50:01 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 CSeq: 102 INFO
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] INFO sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK435aad74cf
 From: <sip:3003@10.78.104.222>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
 To: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
 Date: Fri, 19 Nov 2010 10:50:01 GMT
 Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 102 INFO
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 7

M

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[14] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK435aad74cf
From: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
To: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
Date: Fri, 19 Nov 2010 10:50:01 GMT
Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
CSeq: 102 INFO
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[15] BYE sip:1003@10.78.104.224:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2d7564d3e0
From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
To: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
Date: Fri, 19 Nov 2010 10:50:01 GMT
Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
P-Asserted-Identity: <sip:1003@10.78.104.222>
CSeq: 103 BYE
Reason: Q.850;cause=16
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 11

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[16] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2d7564d3e0
From: <sip:1003@10.78.104.222>;tag=43~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116850
To: <sip:3003@10.78.104.224>;tag=38~90ce1c36-0714-4216-9452-18b053831298-26093631
Date: Fri, 19 Nov 2010 10:50:01 GMT
Call-ID: b88c5d00-ce61564b-b-de684e0a@10.78.104.222
CSeq: 103 BYE
Content-Length: 0

CISCO CONFIDENTIAL**30.2 Callback Busy**

Title: Callback Busy

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via QSIG enabled SIP trunk when phone 1 places a call to phone 2. Phone 2 is busy. Phone 1 user invokes Callback after getting busy notification. The flow captures callback being registered and then message once Phone 2 user becomes available.

Configuration:

Node = Unified CM1, IP = 10.78.104.222

Node = Unified CM2, IP = 10.78.104.224

Phone = A, Line = 3003, IP = 10.10.199.66, Model = SCCP

Phone = B, Line = 1003, IP = 10.10.199.179, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 1XXX

Scenario:

Phone A DN 3003 calls Phone B DN 1003 over the SIP Trunk by dialing 1003

Phone B DN 1003 is busy on another call.

Phone A gets busy indication. DN invokes Callback.

There is a text printed on the phone screen that Callback is invoked

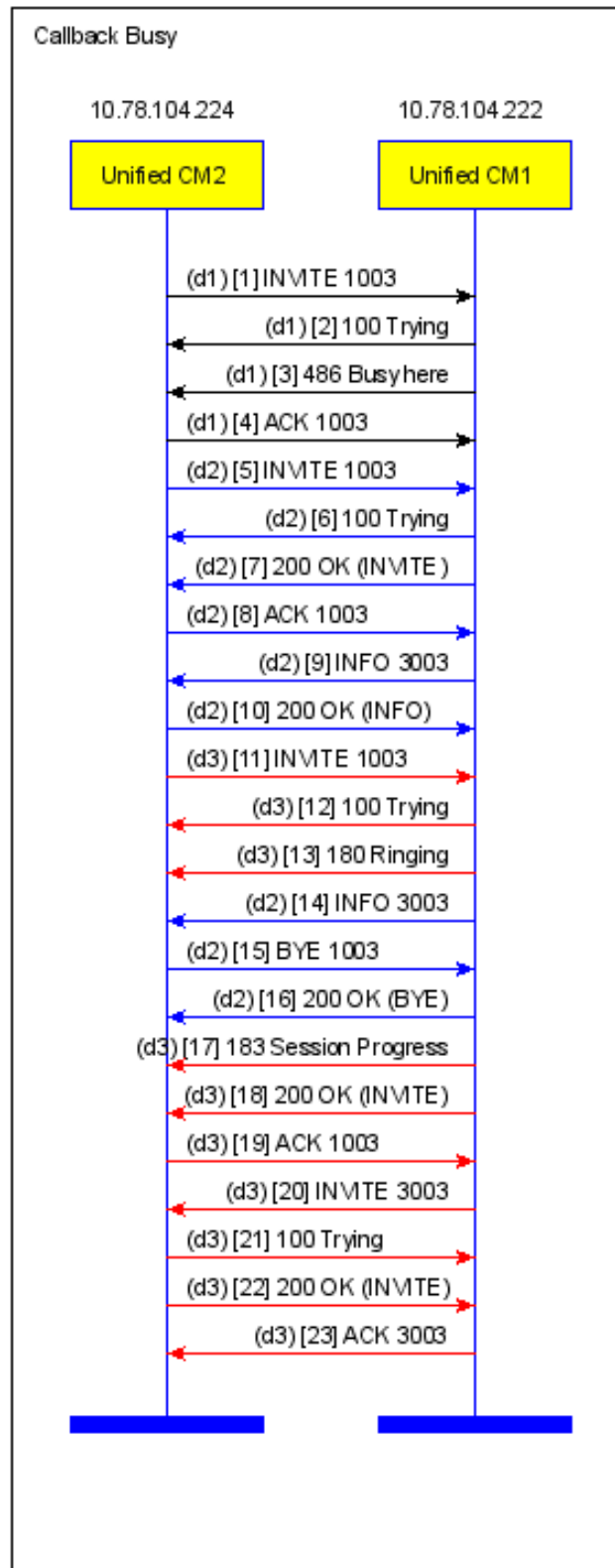
Phone B DN 1003 becomes available by going on-hook.

There is a message printed on Phone A DN 3003 that Phone B user is available.

Phone A user dials Phone B User. Phone B user answers the call.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1003@10.78.104.222:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4e16768caf
 From: <sip:3003@10.78.104.224>;tag=48~90ce1c36-0714-4216-9452-18b053831298-26093647
 To: <sip:1003@10.78.104.222>
 Date: Fri, 19 Nov 2010 11:36:41 GMT
 Call-ID: 45d2b000-ce616149-16-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.78.104.224:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1171435520-0000065536-0000000022-3764932106
 Session-Expires: 1800
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 54

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4e16768caf
 From: <sip:3003@10.78.104.224>;tag=48~90ce1c36-0714-4216-9452-18b053831298-26093647
 To: <sip:1003@10.78.104.222>
 Date: Fri, 19 Nov 2010 11:36:41 GMT
 Call-ID: 45d2b000-ce616149-16-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 486 Busy here**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4e16768caf
 From: <sip:3003@10.78.104.224>;tag=48~90ce1c36-0714-4216-9452-18b053831298-26093647
 To: <sip:1003@10.78.104.222>;tag=53~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116870
 Date: Fri, 19 Nov 2010 11:36:41 GMT
 Call-ID: 45d2b000-ce616149-16-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow-Events: presence
 Reason: Q.850;cause=17
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 32

E

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] ACK sip:1003@10.78.104.222:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4e16768caf
 From: <sip:3003@10.78.104.224>;tag=48~90ce1c36-0714-4216-9452-18b053831298-26093647
 To: <sip:1003@10.78.104.222>;tag=53~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116870
 Date: Fri, 19 Nov 2010 11:36:41 GMT
 Call-ID: 45d2b000-ce616149-16-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] INVITE sip:1003@10.78.104.222:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4f1162e1ef
 From: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093647
 To: <sip:1003@10.78.104.222>
 Date: Fri, 19 Nov 2010 11:36:44 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE

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Expires: 180
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 1201435520-0000065536-0000000023-3764932106
 Session-Expires: 1800
 P-Asserted-Identity: "Call Manager" <sip:3003@10.78.104.224>
 Remote-Party-ID: "Call Manager" <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: multipart/mixed;boundary=uniqueBoundary
 Mime-Version: 1.0
 Content-Length: 347

--uniqueBoundary
 Content-Type: application/sdp

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
 s=SIP Call
 t=0 0

--uniqueBoundary
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 78

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4f1162e1ef
 From: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093649
 To: <sip:1003@10.78.104.222>
 Date: Fri, 19 Nov 2010 11:36:44 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK4f1162e1ef
 From: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093649
 To: <sip:1003@10.78.104.222>;tag=54~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116872
 Date: Fri, 19 Nov 2010 11:36:44 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:10.78.104.222>
 Remote-Party-ID: <sip:10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: multipart/mixed;boundary=uniqueBoundary
 Mime-Version: 1.0
 Content-Length: 305

--uniqueBoundary
 Content-Type: application/sdp

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
 s=SIP Call
 t=0 0

--uniqueBoundary
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 36

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK506c7d6381

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From: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093649
 To: <sip:1003@10.78.104.222>;tag=54~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116872
 Date: Fri, 19 Nov 2010 11:36:44 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK342ca9459c
 From: <sip:1003@10.78.104.222>;tag=54~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116872
 To: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093649
 Date: Fri, 19 Nov 2010 11:36:44 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 101 INFO
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 28

b

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK342ca9459c
 From: <sip:1003@10.78.104.222>;tag=54~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116872
 To: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093649
 Date: Fri, 19 Nov 2010 11:36:51 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 CSeq: 101 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] INVITE sip:1003@10.78.104.222:5060 SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK511f28c8c1
 From: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 To: <sip:1003@10.78.104.222>
 Date: Fri, 19 Nov 2010 11:36:53 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.78.104.224:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1291435520-0000065536-0000000024-3764932106
 Session-Expires: 1800
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 75

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK511f28c8c1
 From: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 To: <sip:1003@10.78.104.222>
 Date: Fri, 19 Nov 2010 11:36:53 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] SIP/2.0 180 Ringing
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK511f28c8c1

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From: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 To: <sip:1003@10.78.104.222>;tag=56~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116874
 Date: Fri, 19 Nov 2010 11:36:53 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 28

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK3563c0d5f9
 From: <sip:1003@10.78.104.222>;tag=54~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116872
 To: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093649
 Date: Fri, 19 Nov 2010 11:36:44 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 102 INFO
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

M

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] BYE sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK5228f87d4b
 From: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093649
 To: <sip:1003@10.78.104.222>;tag=54~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116872
 Date: Fri, 19 Nov 2010 11:36:53 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: "Call Manager" <sip:3003@10.78.104.224>
 CSeq: 102 BYE
 Reason: Q.850;cause=16
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK5228f87d4b
 From: "Call Manager" <sip:3003@10.78.104.224>;tag=49~90ce1c36-0714-4216-9452-18b053831298-26093649
 To: <sip:1003@10.78.104.222>;tag=54~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116872
 Date: Fri, 19 Nov 2010 11:36:53 GMT
 Call-ID: 479c7380-ce61614c-17-e0684e0a@10.78.104.224
 CSeq: 102 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 183 Session Progress
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK511f28c8c1
 From: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 To: <sip:1003@10.78.104.222>;tag=56~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116874
 Date: Fri, 19 Nov 2010 11:36:53 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: multipart/mixed;boundary=uniqueBoundary
 Mime-Version: 1.0

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Content-Length: 522

--uniqueBoundary
Content-Type: application/sdp

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.47.253
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 0 8 18 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 7

--uniqueBoundary--

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK511f28c8c1
From: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
To: <sip:1003@10.78.104.222>;tag=56~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116874
Date: Fri, 19 Nov 2010 11:36:53 GMT
Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:1003@10.78.104.222>
Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Content-Type: multipart/mixed;boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 552
```

--uniqueBoundary
Content-Type: application/sdp

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.47.253
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 0 8 18 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 36

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[diagram] Call-ID: [prev][next]

[19] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK534a4ae33b
 From: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 To: <sip:1003@10.78.104.222>;tag=56~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116874
 Date: Fri, 19 Nov 2010 11:36:53 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 249

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 64.103.237.99
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 24586 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=recvnonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[diagram] Call-ID: [prev][next]

[20] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK365d8e2c34
 From: <sip:1003@10.78.104.222>;tag=56~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116874
 To: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 Date: Fri, 19 Nov 2010 11:36:57 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 1291435520-0000065536-0000000024-3764932106
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 239

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 21468 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[diagram] Call-ID: [prev][next]

[21] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK365d8e2c34
 From: <sip:1003@10.78.104.222>;tag=56~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116874
 To: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 Date: Fri, 19 Nov 2010 11:36:57 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[diagram] Call-ID: [prev][next]

[22] SIP/2.0 200 OK

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Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK365d8e2c34
 From: <sip:1003@10.78.104.222>;tag=56~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116874
 To: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 Date: Fri, 19 Nov 2010 11:36:57 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 237

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 64.103.237.99
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 24586 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK37344cac55
 From: <sip:1003@10.78.104.222>;tag=56~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116874
 To: <sip:3003@10.78.104.224>;tag=51~90ce1c36-0714-4216-9452-18b053831298-26093652
 Date: Fri, 19 Nov 2010 11:36:57 GMT
 Call-ID: 4cf9be00-ce616155-18-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

CISCO CONFIDENTIAL**30.3 Callback No Answer**

Title: Callback No Answer

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via QSIG enabled SIP trunk when phone 1 places a call to phone 2. Phone 2

does not answer and phone 1 user invokes Callback. The flow captures callback being registered and

then message once Phone 2 user becomes available.

Configuration:

Node = Unified CM1, IP = 10.78.104.222

Node = Unified CM2, IP = 10.78.104.224

Phone = A, Line = 3003, IP = 10.10.199.66, Model = SCCP

Phone = B, Line = 1003, IP = 10.10.199.179, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 1XXX

Scenario:

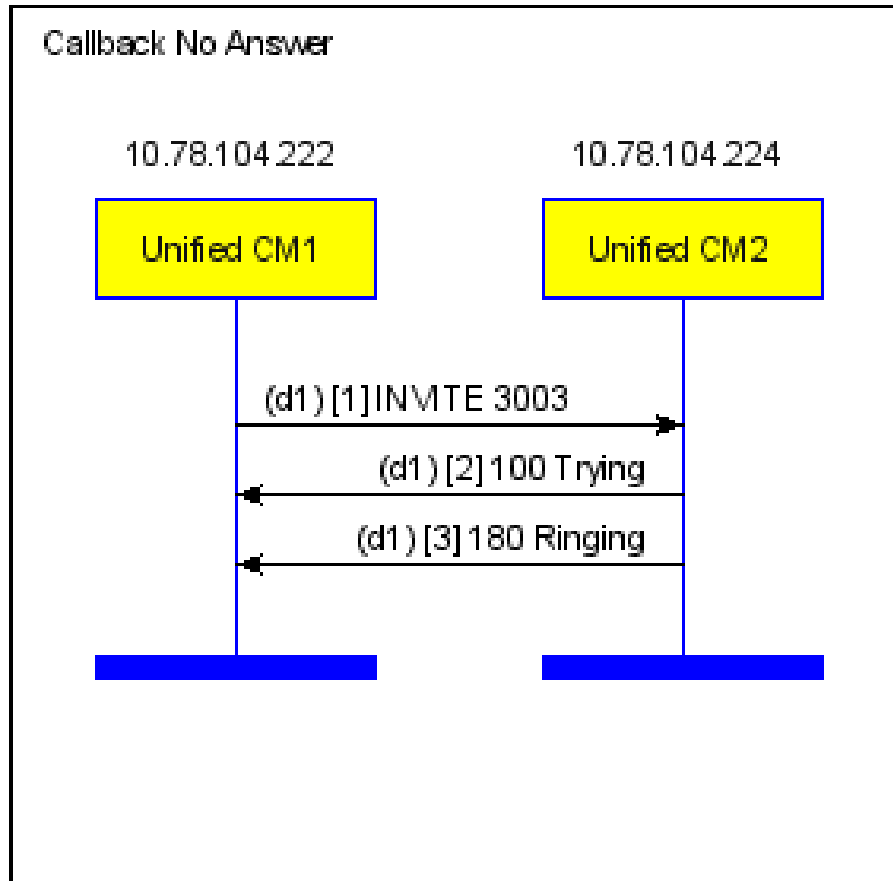
Phone A DN 3003 calls Phone B DN 1003 over the SIP Trunk by dialing 1003

Phone B DN 1003 does not answer

Phone A DN invokes Callback. There is a text printed on the phone screen that Callback is invoked

Phone B DN 1003 becomes available by going off-hook. There is a message printed on Phone A DN 3003 that Phone B user is available. Phone A user dials Phone B User. Phone B user answers the call.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:3003@10.78.104.224:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2e772fb1bf
 From: <sip:1003@10.78.104.222>;tag=45~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116852
 To: <sip:3003@10.78.104.224>
 Date: Fri, 19 Nov 2010 10:53:43 GMT
 Call-ID: 45371b00-ce615737-c-de684e0a@10.78.104.222
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.78.104.222:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1161239296-00000065536-0000000012-3731377674
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=calling;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 54

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2e772fb1bf
 From: <sip:1003@10.78.104.222>;tag=45~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116852
 To: <sip:3003@10.78.104.224>
 Date: Fri, 19 Nov 2010 10:53:43 GMT
 Call-ID: 45371b00-ce615737-c-de684e0a@10.78.104.222
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK2e772fb1bf
 From: <sip:1003@10.78.104.222>;tag=45~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116852
 To: <sip:3003@10.78.104.224>;tag=40~90ce1c36-0714-4216-9452-18b053831298-26093633
 Date: Fri, 19 Nov 2010 10:53:43 GMT
 Call-ID: 45371b00-ce615737-c-de684e0a@10.78.104.222
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 28

CISCO CONFIDENTIAL**30.4 Call Forward with Path Replacement**

Title: Call Forward with Path Replacement

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via QSIG enabled SIP trunk when phone 1 places a call to phone 2. Phone 2 has call forwarding universal enabled to Phone 3.

Configuration:

Node = Unified CM1, IP = 10.78.104.222

Node = Unified CM2, IP = 10.78.104.224

Phone = A, Line = 3003, IP = 10.10.199.66, Model = SCCP call forwarded to Phone C, line 3005

Phone = B, Line = 1003, IP = 10.10.199.179, Model = SCCP

Phone=C, line 3005, IP=x.x.x.x

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 1XXX

On SIP Trunk configuration page, Path Replacement is enabled

Scenario:

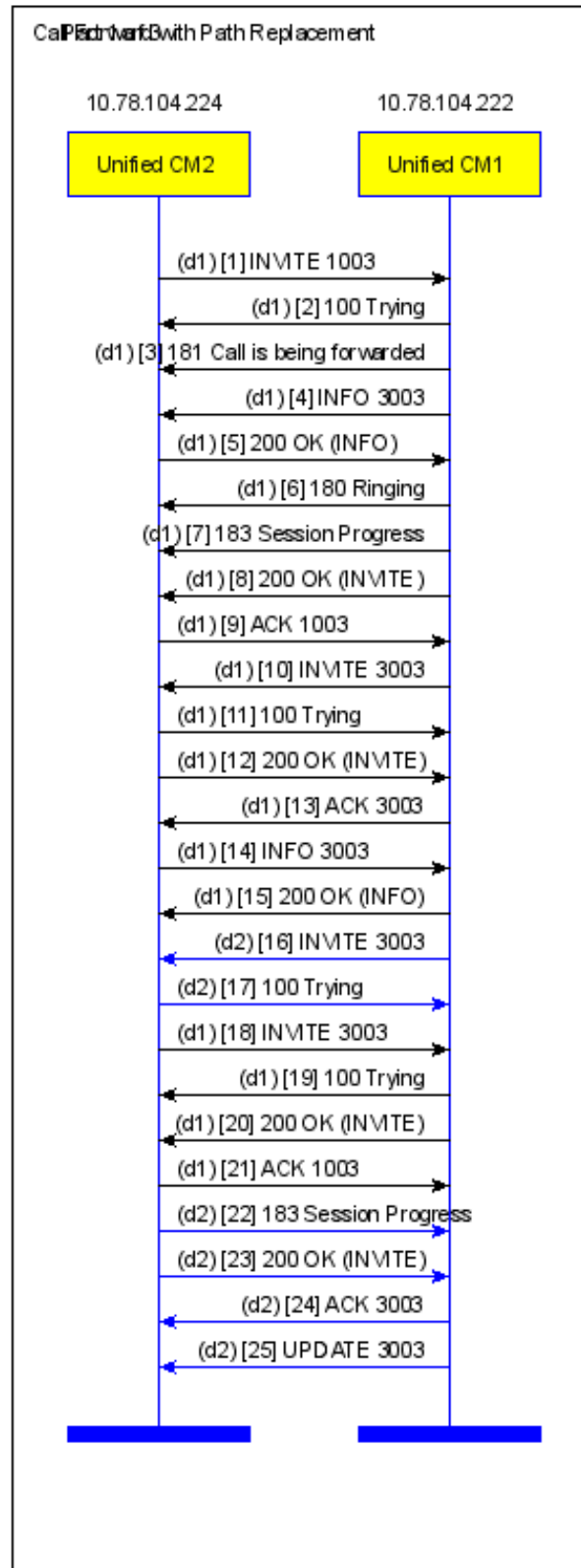
Phone A DN 3003 calls Phone B DN 1003 over the SIP Trunk by dialing 1003

Phone B DN has CFU enabled and call is diverted to Phone C, DN 3005.

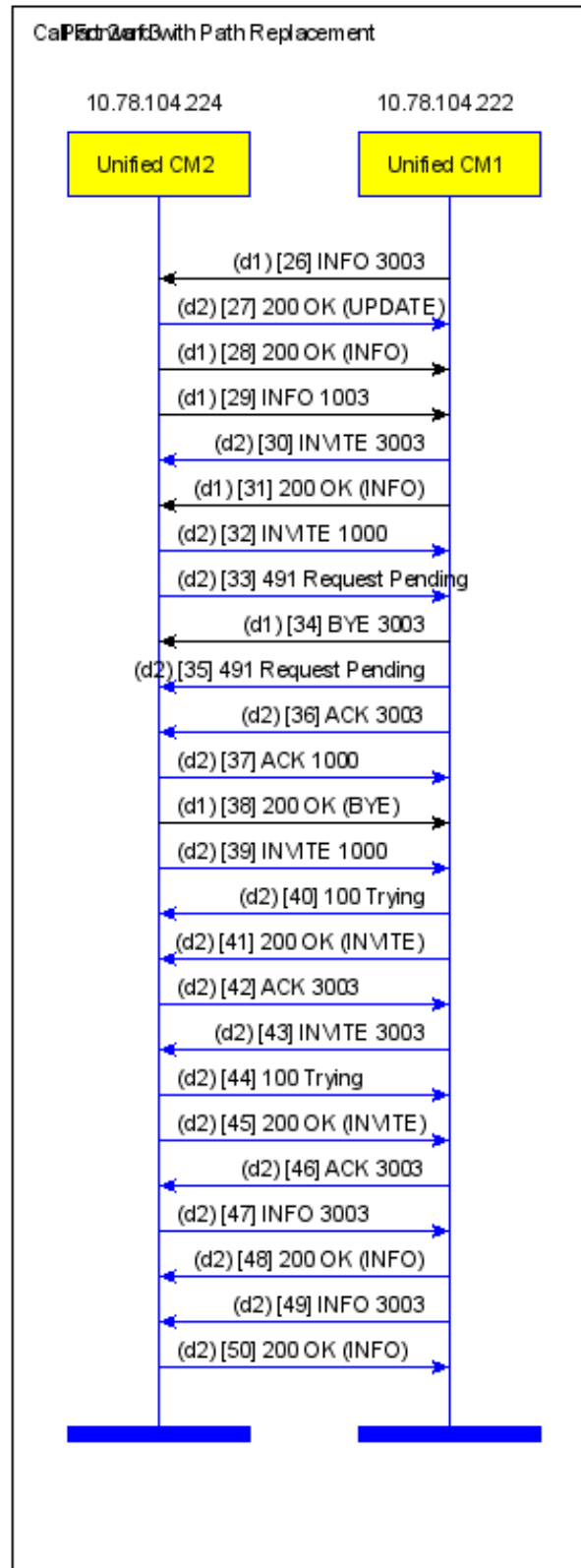
Phone C user answers the call.

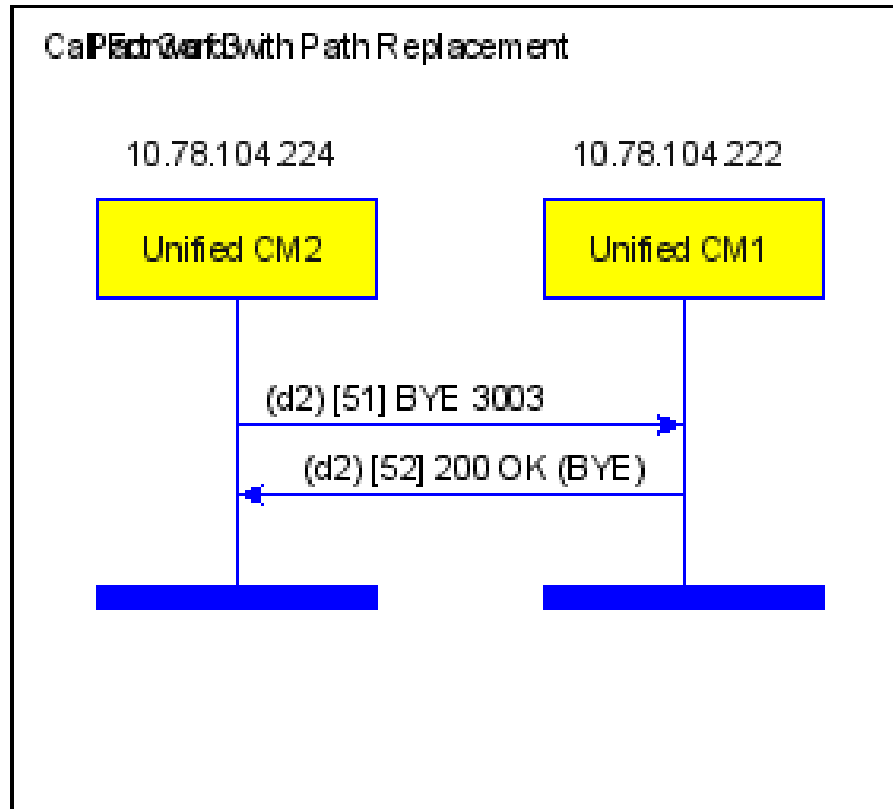
End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1003@10.78.104.222:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8743dc8254

From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683

To: <sip:1003@10.78.104.222>

Date: Mon, 22 Nov 2010 05:07:24 GMT

Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Call-Info: <sip:10.78.104.224:5060>;method="NOTIFY;Event=telephone-event;Duration=500"

Cisco-Guid: 1664390016-0000065536-0000000032-3764932106

Session-Expires: 1800

P-Asserted-Identity: <sip:3003@10.78.104.224>

Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off

Contact: <sip:3003@10.78.104.224:5060;transport=tcp>

Max-Forwards: 70

Content-Type: application/qsig

Content-Disposition: signal;handling=optional

Content-Length: 54

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8743dc8254

From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683

To: <sip:1003@10.78.104.222>

Date: Mon, 22 Nov 2010 05:07:24 GMT

Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 181 Call is being forwarded**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8743dc8254

From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683

To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895

Date: Mon, 22 Nov 2010 05:07:24 GMT

Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence

Contact: <sip:1003@10.78.104.222:5060;transport=tcp>

P-Asserted-Identity: <sip:1003@10.78.104.222>

Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5644c7b0b8

From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895

To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683

Date: Mon, 22 Nov 2010 05:07:24 GMT

Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

CSeq: 101 INFO

Contact: <sip:1003@10.78.104.222:5060;transport=tcp>

Content-Type: application/qsig

Content-Disposition: signal;handling=optional

Content-Length: 43

b "

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5644c7b0b8

From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895

To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683

Date: Mon, 22 Nov 2010 05:07:24 GMT

Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224

CSeq: 101 INFO

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Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8743dc8254
From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
Date: Mon, 22 Nov 2010 05:07:24 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 28

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8743dc8254
From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
Date: Mon, 22 Nov 2010 05:07:24 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Content-Type: multipart/mixed;boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 633

--uniqueBoundary
Content-Type: application/sdp

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.66.211
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 9 0 8 116 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:116 iLBC/8000
a=ptime:20
a=maxptime:60
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 7

--uniqueBoundary--

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[8] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8743dc8254
 From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
 To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
 Date: Mon, 22 Nov 2010 05:07:24 GMT
 Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1000@10.78.104.222>
 Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: multipart/mixed;boundary=uniqueBoundary
 Mime-Version: 1.0
 Content-Length: 690

--uniqueBoundary
 Content-Type: application/sdp

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.66.211
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 4000 RTP/AVP 9 0 8 116 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:116 iLBC/8000
 a=ptime:20
 a=maxptime:60
 a=fmtp:116 mode=20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=sendonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

--uniqueBoundary
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 63

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[9] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8878f2ef43
 From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
 To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
 Date: Mon, 22 Nov 2010 05:07:24 GMT
 Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 249

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.104.66.169
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 24584 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=recvonly

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a=rtptime:101 telephone-event/8000
a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK575008f374
From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
Date: Mon, 22 Nov 2010 05:07:26 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
Supported: timer,resource-priority,replaces
Min-SE: 1800
Cisco-Guid: 1664390016-0000065536-0000000032-3764932106
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=calling;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 239

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.66.211
b=TIAS:64000
b=AS:64
t=0 0
m=audio 24584 RTP/AVP 18 101
a=rtptime:18 6729/8000
a=ptime:20
a=rtptime:101 telephone-event/8000
a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK575008f374
From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
Date: Mon, 22 Nov 2010 05:07:26 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
CSeq: 102 INVITE
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK575008f374
From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
Date: Mon, 22 Nov 2010 05:07:26 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: timer
P-Asserted-Identity: <sip:3003@10.78.104.224>
Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 237

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.66.169
b=TIAS:8000
b=AS:8
t=0 0

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```
m=audio 24584 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[13] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK584c7cb91f
From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
Date: Mon, 22 Nov 2010 05:07:26 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[14] INFO sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK897e91c337
From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
Date: Mon, 22 Nov 2010 05:07:26 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 INFO
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 45
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[15] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK897e91c337
From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
Date: Mon, 22 Nov 2010 05:07:32 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
CSeq: 102 INFO
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[16] INVITE sip:3003@10.78.104.224:5060 SIP/2.0
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK59202095fc
From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
To: <sip:3003@10.78.104.224>
Date: Mon, 22 Nov 2010 05:07:32 GMT
Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Cisco-Guid: 1744390016-0000065536-0000000013-3731377674
Session-Expires: 1800
P-Asserted-Identity: "Call Manager" <sip:1000@10.78.104.222>
Remote-Party-ID: "Call Manager" <sip:1000@10.78.104.222>;party=calling;screen=yes;privacy=off
Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Max-Forwards: 70
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 93
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[17] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK59202095fc
From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
To: <sip:3003@10.78.104.224>
Date: Mon, 22 Nov 2010 05:07:32 GMT
```

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Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222

CSeq: 101 INVITE

Allow-Events: presence

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] INVITE sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8a61b20ee7

From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683

To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895

Date: Mon, 22 Nov 2010 05:07:32 GMT

Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 103 INVITE

Max-Forwards: 70

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

P-Asserted-Identity: <sip:3003@10.78.104.224>

Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off

Contact: <sip:3003@10.78.104.224:5060;transport=tcp>

Content-Type: application/sdp

Content-Length: 243

v=0

o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.78.104.224

s=SIP Call

c=IN IP4 0.0.0.0

b=TIAS:8000

b=AS:8

t=0 0

m=audio 24584 RTP/AVP 18 101

a=rtpmap:18 G729/8000

a=ptime:20

a=inactive

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8a61b20ee7

From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683

To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895

Date: Mon, 22 Nov 2010 05:07:32 GMT

Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224

CSeq: 103 INVITE

Allow-Events: presence, kpml

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8a61b20ee7

From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683

To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895

Date: Mon, 22 Nov 2010 05:07:32 GMT

Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224

CSeq: 103 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence, kpml

Supported: replaces

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

Require: timer

P-Asserted-Identity: <sip:1000@10.78.104.222>

Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off

Contact: <sip:1003@10.78.104.222:5060;transport=tcp>

Content-Type: application/sdp

Content-Length: 249

v=0

o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.78.104.222

s=SIP Call

c=IN IP4 10.104.66.211

b=TIAS:8000

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```

b=AS:8
t=0 0
m=audio 24584 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[21] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK8b7ffbae54
From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
Date: Mon, 22 Nov 2010 05:07:32 GMT
Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[22] SIP/2.0 183 Session Progress
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK59202095fc
From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
Date: Mon, 22 Nov 2010 05:07:32 GMT
Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:3003@10.78.104.224>
Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: multipart/mixed;boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 450

```

```

--uniqueBoundary
Content-Type: application/sdp

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.66.169
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

```

--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 7

```

```

--uniqueBoundary--

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[23] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK59202095fc
From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
Date: Mon, 22 Nov 2010 05:07:32 GMT
Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas

```


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Require: timer
P-Asserted-Identity: <sip:3003@10.78.104.224>
Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: multipart/mixed;boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 503

--uniqueBoundary
Content-Type: application/sdp

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.66.169
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 59

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[24] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5a4e995b41
From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
Date: Mon, 22 Nov 2010 05:07:32 GMT
Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 271

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.78.104.222
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=fmtp:18 annexb=no
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[25] UPDATE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5b5c6da6b0
From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
Date: Mon, 22 Nov 2010 05:07:32 GMT
Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
Supported: timer,resource-priority,replaces
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 102 UPDATE
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=calling;screen=yes;privacy=off
Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5cb028fd1
 From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
 To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 103 INFO
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

E

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5b5c6da6b0
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 102 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5cb028fd1
 From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
 To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
 CSeq: 103 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] INFO sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8c7ea65044
 From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
 To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 104 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 7

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5d1463f71c
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1000@10.78.104.222>

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Remote-Party-ID: <sip:1000@10.78.104.222>;party=calling;screen=yes;privacy=off
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8c7ea65044
 From: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
 To: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
 CSeq: 104 INFO
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] INVITE sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8d4901fcd8
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 1744390016-0000065536-0000000013-3731377674
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:1000@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 260

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.104.66.169
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 24586 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[33] SIP/2.0 491 Request Pending

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5d1463f71c
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 103 INVITE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[34] BYE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5e5010a9c9
 From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
 To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 104 BYE
 Reason: Q.850;cause=16
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

Z

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[35] SIP/2.0 491 Request Pending**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8d4901fcd8
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 101 INVITE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[36] ACK sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5d1463f71c
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 Max-Forwards: 70
 CSeq: 103 ACK
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[37] ACK sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8d4901fcd8
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[38] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5e5010a9c9
 From: <sip:1003@10.78.104.222>;tag=72~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116895
 To: <sip:3003@10.78.104.224>;tag=67~90ce1c36-0714-4216-9452-18b053831298-26093683
 Date: Mon, 22 Nov 2010 05:07:32 GMT
 Call-ID: 63349380-ce91fa8c-20-e0684e0a@10.78.104.224
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[39] INVITE sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8e7985fcfb
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 1744390016-0000065536-0000000013-3731377674
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Expires: 180
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[40] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8e7985fcfb
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 102 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[41] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8e7985fcfb
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222

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CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1000@10.78.104.222>
 Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 433

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.66.211
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 4000 RTP/AVP 9 0 8 116 18 101
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:116 iLBC/8000
 a=ptime:20
 a=maxptime:60
 a=fmtp:116 mode=20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=sendonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[42] ACK sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8f8ea9ddf
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 270

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.104.66.169
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 24586 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=recvonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[43] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5f45b4e344
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback

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Supported: Geolocation
 P-Asserted-Identity: <sip:1000@10.78.104.222>
 Remote-Party-ID: <sip:1000@10.78.104.222>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 260

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.66.211
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 24586 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[44] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5f45b4e344
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 104 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[45] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5f45b4e344
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 258

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.104.66.169
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 24586 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=fmtp:18 annexb=no
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[46] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK6060da1d41
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 Max-Forwards: 70
 CSeq: 104 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[47] INFO sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK907e937cbc

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From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:33 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 103 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

E

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[48] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK907e937cbc
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:41 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 103 INFO
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[49] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK61610cb8e1
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:41 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 105 INFO
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 7

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[50] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK61610cb8e1
 From: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 To: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 Date: Mon, 22 Nov 2010 05:07:41 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 105 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[51] BYE sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK9176ce9ac1
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:41 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 104 BYE
 Reason: Q.850;cause=16
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

Z

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[52] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK9176ce9ac1
 From: <sip:3003@10.78.104.224>;tag=69~90ce1c36-0714-4216-9452-18b053831298-26093684
 To: "Call Manager" <sip:1000@10.78.104.222>;tag=74~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116900
 Date: Mon, 22 Nov 2010 05:07:41 GMT
 Call-ID: 67f94780-ce91fa94-d-de684e0a@10.78.104.222
 CSeq: 104 BYE
 Content-Length: 0

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CISCO CONFIDENTIAL**30.5 Call Transfer with Path Replacement enabled**

Title: Call Transfer with Path Replacement enabled

Description:

The following call flow illustrates the SIP messaging that takes place between two Cisco Unified CMs via QSIG enabled SIP trunk when phone 1 places a call to phone 2. Phone 2

does not answer and phone 1 user invokes Callback. The flow captures callback being registered

and then message once Phone 2 user becomes available.

Configuration:

Node = Unified CM1, IP = 10.78.104.222

Node = Unified CM2, IP = 10.78.104.224

Phone = A, Line = 3003, IP = 10.10.199.66, Model = SCCP

Phone = B, Line = 1003, IP = 10.10.199.179, Model = SCCP

Phone = C, Line = 1003, IP = 10.10.199.179, Model = SCCP

SIP Trunk between Unified CM1 & Unified CM2 has route pattern 1XXX

On SIP Trunk configuration page, Path Replacement is enabled

Scenario:

Phone A DN 3003 calls Phone B DN 1003 over the SIP Trunk by dialing 1003

Phone B DN 1003 answers

Phone A presses Transfer Softkey and dials Phone C user. Phone C user answers the call.

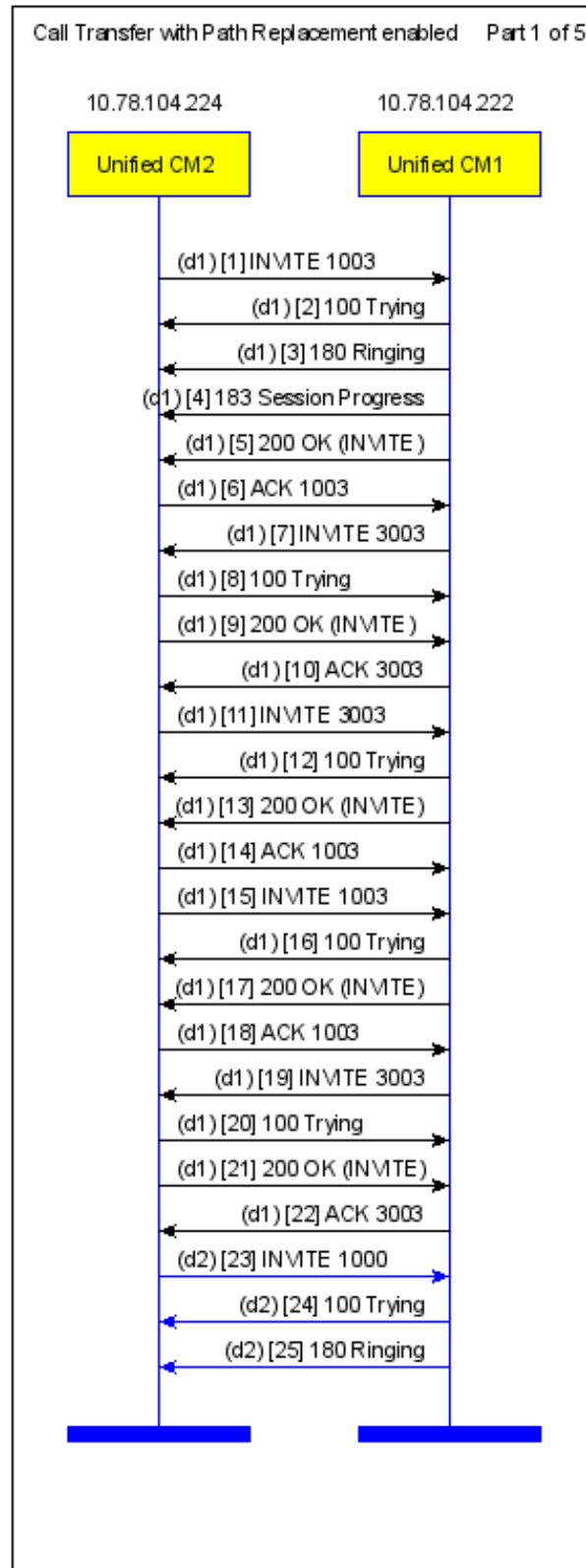
Phone A user presses Transfer softkey one more time.

Phone B & Phone C user are now talking.

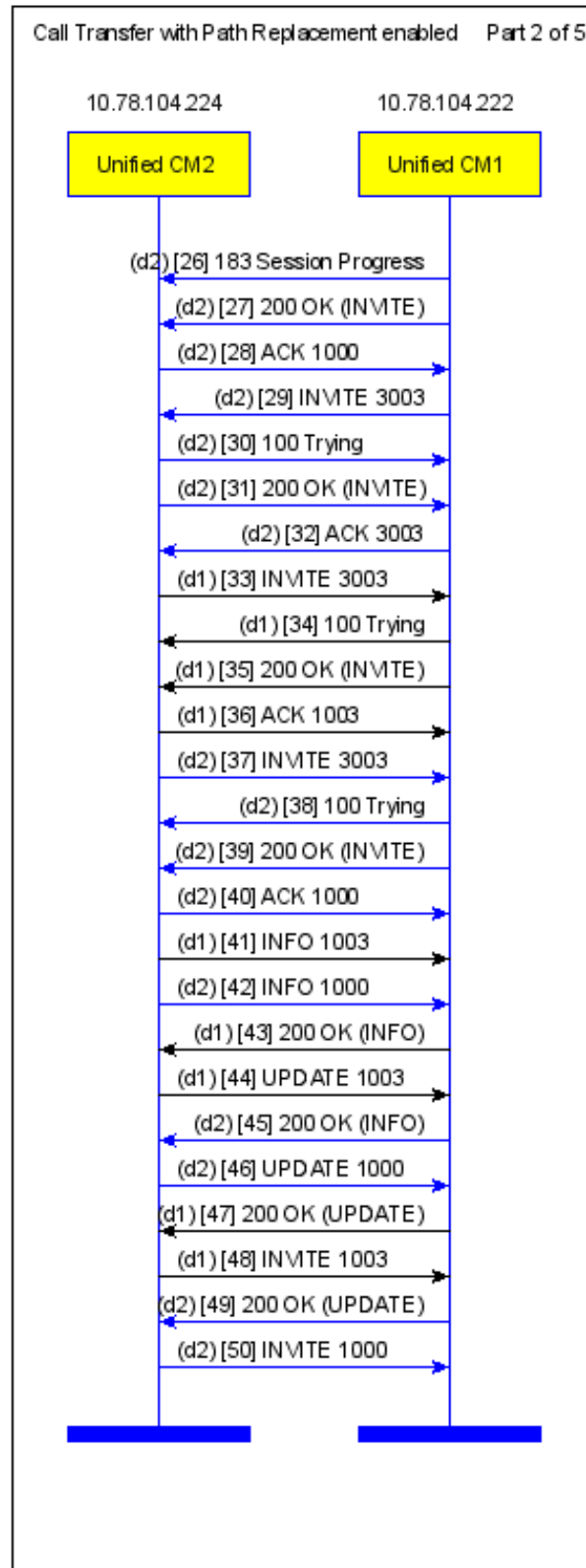
Path replacement feature is invoked to remove CUCM1 from the signaling path.

End of Scenario

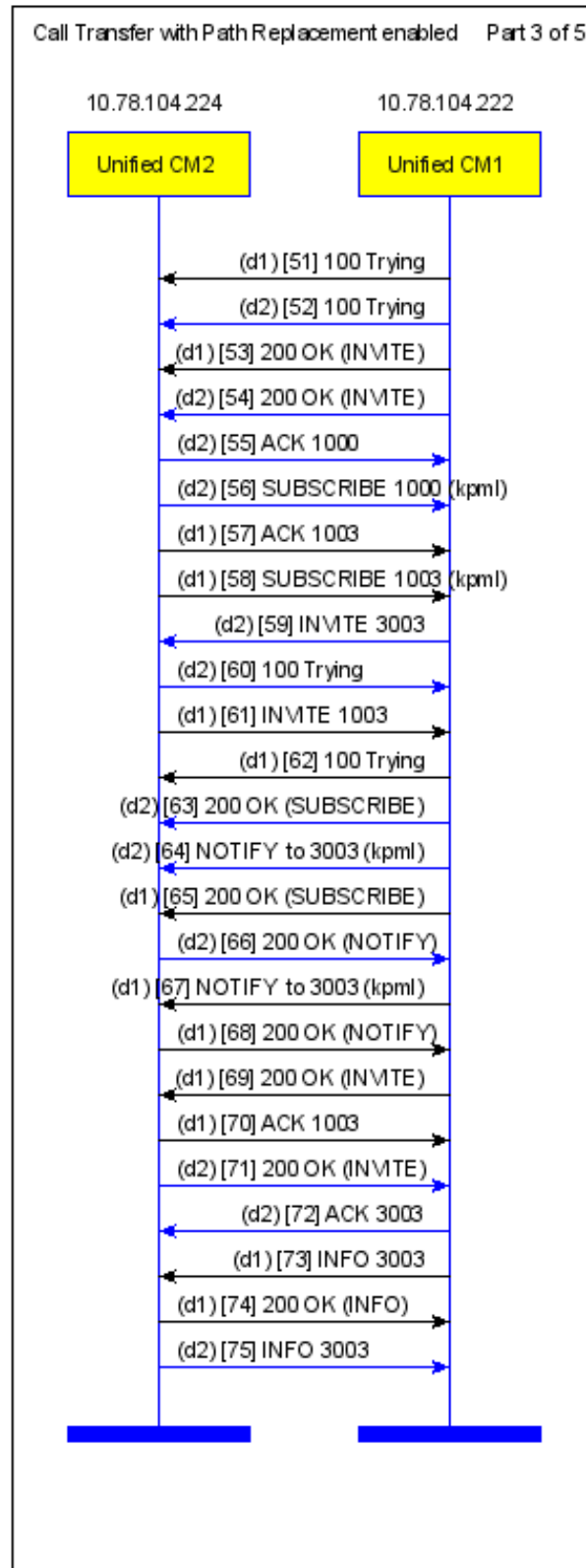
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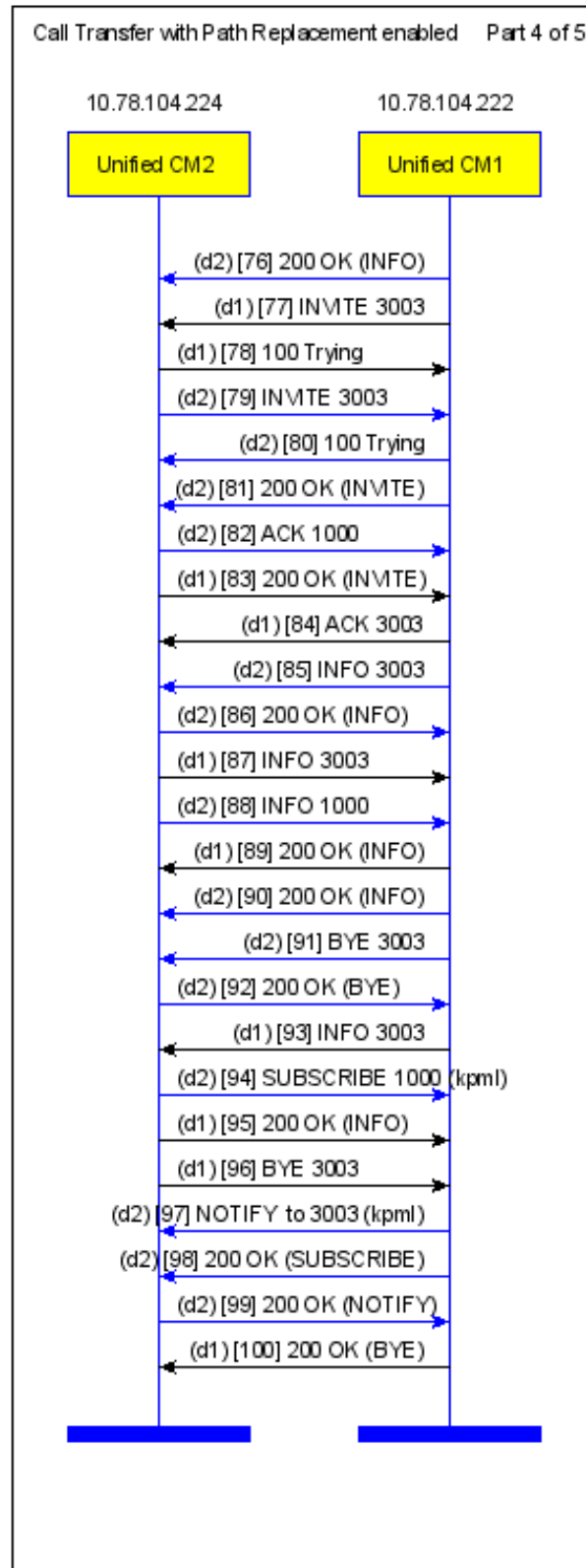
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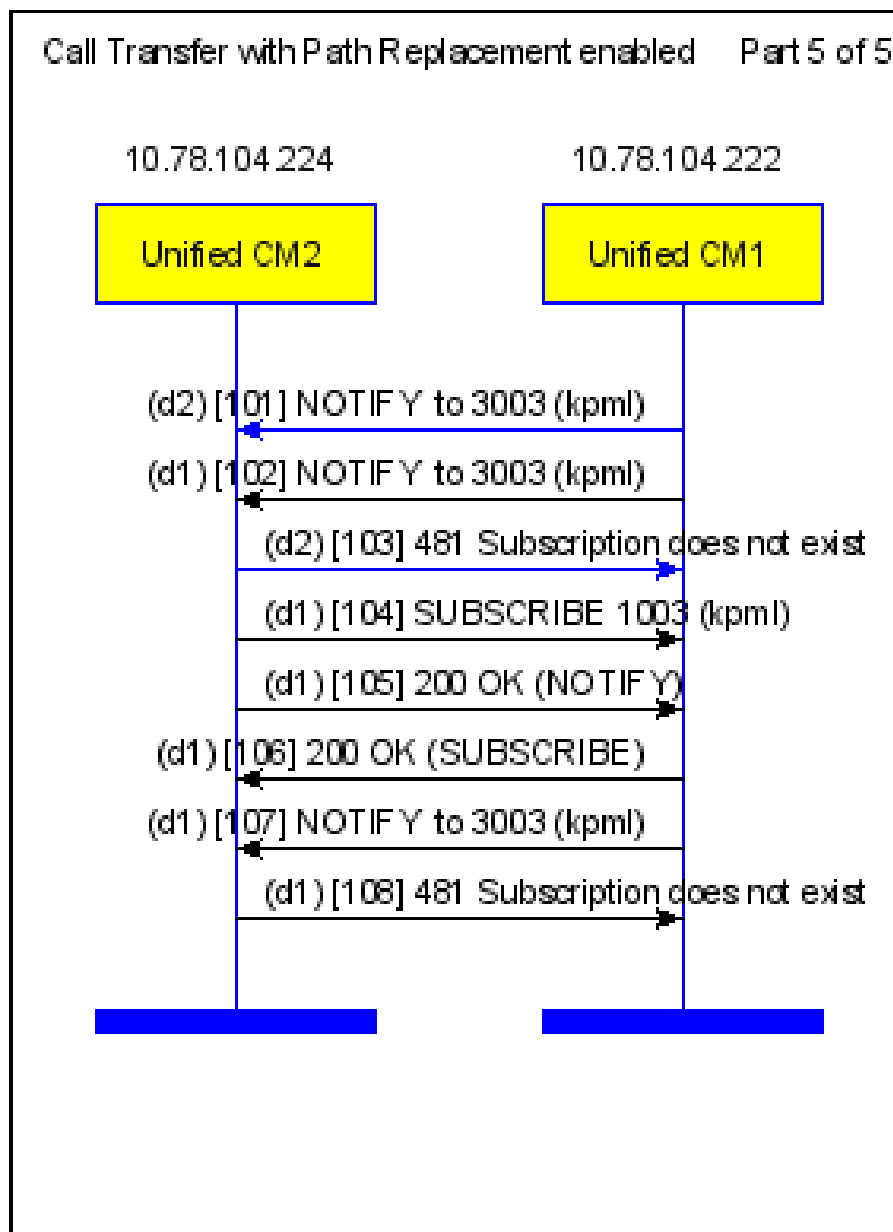


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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:1003@10.78.104.222:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK679a63f7c
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>
 Date: Mon, 22 Nov 2010 05:04:13 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.78.104.224:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 4049357312-00000065536-0000000030-3764932106
 Session-Expires: 1800
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 54

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK679a63f7c
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>
 Date: Mon, 22 Nov 2010 05:04:13 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK679a63f7c
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:13 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 28

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK679a63f7c
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:13 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: multipart/mixed;boundary=uniqueBoundary
 Mime-Version: 1.0
 Content-Length: 522

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```
--uniqueBoundary
Content-Type: application/sdp
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.47.253
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 0 8 18 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

```
--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 7
```

```
--uniqueBoundary--
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK679a63f7c
From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
Date: Mon, 22 Nov 2010 05:04:13 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:1003@10.78.104.222>
Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Content-Type: multipart/mixed;boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 552
```

```
--uniqueBoundary
Content-Type: application/sdp
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.47.253
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 0 8 18 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

```
--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 36
```

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[6] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6877722bc2
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:13 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 249

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.104.66.169
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 24580 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=recvonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4227f4f5c5
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:16 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 4049357312-0000065536-0000000030-3764932106
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 239

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 21476 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 100 Trying
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4227f4f5c5
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:16 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[9] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4227f4f5c5
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887

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To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:16 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 237

v=0
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.104.66.169
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 24580 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK437cfd98ee
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:16 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6922d0ca29
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 243

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 0.0.0.0
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 24580 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[12] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6922d0ca29
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[13] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6922d0ca29
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 249

v=0
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:8000
 b=AS:8
 t=0 0
 m=audio 21476 RTP/AVP 18 101
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[14] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6a18066165
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[15] INVITE sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6b38bebc23
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 103 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Length: 0

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[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6b38bebc23
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 103 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6b38bebc23
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 103 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 322

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 4000 RTP/AVP 0 8 18 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:8 PCMA/8000
 a=ptime:20
 a=rtpmap:18 G729/8000
 a=ptime:20
 a=sendonly
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6c37173600
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 103 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.78.104.224
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK441967f443

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From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 Cisco-Guid: 4049357312-0000065536-0000000030-3764932106
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 237

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 21476 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK441967f443
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 102 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK441967f443
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 214

v=0
 o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.78.104.224
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=sendonly

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[22] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK45742259cd
 From: <sip:1003@10.78.104.224>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:24 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 102 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[23] INVITE sip:1000@10.78.104.222:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6d2feeabd9
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>
 Date: Mon, 22 Nov 2010 05:04:27 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.78.104.224:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 4189357312-0000065536-0000000031-3764932106
 Session-Expires: 1800
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 54

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[24] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6d2feeabd9
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>
 Date: Mon, 22 Nov 2010 05:04:27 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[25] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6d2feeabd9
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:27 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1000@10.78.104.222>
 Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 28

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[26] SIP/2.0 183 Session Progress**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6d2feeabd9
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:27 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224

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```
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Content-Type: multipart/mixed;boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 633
```

```
--uniqueBoundary
Content-Type: application/sdp
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.66.211
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 9 0 8 116 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:116 iLBC/8000
a=ptime:20
a=maxptime:60
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

```
--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 7
```

```
--uniqueBoundary--
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6d2feeabd9
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:27 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Content-Type: multipart/mixed;boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 663
```

```
--uniqueBoundary
Content-Type: application/sdp
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.66.211
b=TIAS:64000
b=AS:64
t=0 0
```

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```

m=audio 4000 RTP/AVP 9 0 8 116 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:116 iLBC/8000
a=ptime:20
a=maxptime:60
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

--uniqueBoundary
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 36

```

```

[diagram] Call-ID:[prev][next]
[28] ACK sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6ead36a04
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:27 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 249

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.66.169
b=TIAS:8000
b=AS:8
t=0 0
m=audio 24582 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

```

[diagram] Call-ID:[prev][next]
[29] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4627691b8b
From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
Date: Mon, 22 Nov 2010 05:04:46 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
Supported: timer,resource-priority,replaces
Min-SE: 1800
Cisco-Guid: 4189357312-00000065536-0000000031-3764932106
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=calling;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 239

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.66.211

```


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```

b=TIAS:64000
b=AS:64
t=0 0
m=audio 24578 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 100 Trying

```

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4627691b8b
From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
Date: Mon, 22 Nov 2010 05:04:46 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 101 INVITE
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4627691b8b
From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
Date: Mon, 22 Nov 2010 05:04:46 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
Require: timer
P-Asserted-Identity: <sip:3003@10.78.104.224>
Remote-Party-ID: <sip:3003@10.78.104.224>;party=called;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 237

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.66.169
b=TIAS:8000
b=AS:8
t=0 0
m=audio 24582 RTP/AVP 18 101
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4748347657
From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
Date: Mon, 22 Nov 2010 05:04:46 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[33] INVITE sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6f4c901ef3
From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 104 INVITE
Max-Forwards: 70
Expires: 180

```


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Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 208

v=0
 o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 0.0.0.0
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 4000 RTP/AVP 0
 a=X-cisco-media:umoh
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[34] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6f4c901ef3
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 104 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[35] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK6f4c901ef3
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 104 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 193

v=0
 o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 21476 RTP/AVP 0
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[36] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK705b1735ed
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 104 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

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[diagram] Call-ID: [prev][next]

[37] INVITE sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK712804f63

From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680

To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889

Date: Mon, 22 Nov 2010 05:04:51 GMT

Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 102 INVITE

Max-Forwards: 70

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

P-Asserted-Identity: <sip:3003@10.78.104.224>

Remote-Party-ID: <sip:3003@10.78.104.224>;party=calling;screen=yes;privacy=off

Contact: <sip:3003@10.78.104.224:5060;transport=tcp>

Content-Type: application/sdp

Content-Length: 243

v=0

o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.78.104.224

s=SIP Call

c=IN IP4 0.0.0.0

b=TIAS:8000

b=AS:8

t=0 0

m=audio 24582 RTP/AVP 18 101

a=rtpmap:18 G729/8000

a=ptime:20

a=inactive

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

[diagram] Call-ID: [prev][next]

[38] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK712804f63

From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680

To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889

Date: Mon, 22 Nov 2010 05:04:51 GMT

Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224

CSeq: 102 INVITE

Allow-Events: presence, kpml

Content-Length: 0

[diagram] Call-ID: [prev][next]

[39] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK712804f63

From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680

To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889

Date: Mon, 22 Nov 2010 05:04:51 GMT

Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224

CSeq: 102 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence, kpml

Supported: replaces

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

Require: timer

P-Asserted-Identity: <sip:1000@10.78.104.222>

Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off

Contact: <sip:1000@10.78.104.222:5060;transport=tcp>

Content-Type: application/sdp

Content-Length: 249

v=0

o=CiscoSystemsCCM-SIP 2000 3 IN IP4 10.78.104.222

s=SIP Call

c=IN IP4 10.104.66.211

b=TIAS:8000

b=AS:8

t=0 0

m=audio 24578 RTP/AVP 18 101

a=rtpmap:18 G729/8000

a=ptime:20

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a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[40] ACK sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK72a777944
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence, kpml
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[41] INFO sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7339c8b3d0
From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 105 INFO
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 45

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[42] INFO sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK745f633b5c
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 103 INFO
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 42

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[43] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7339c8b3d0
From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
CSeq: 105 INFO
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[44] UPDATE sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK75499c2eff
From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
Supported: timer,resource-priority,replaces
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 106 UPDATE
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1000@10.78.104.224>
Remote-Party-ID: <sip:1000@10.78.104.224>;party=calling;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Length: 0

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[45] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK745f633b5c
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 103 INFO
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[46] UPDATE sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK76303c0ef3
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 Supported: timer,resource-priority,replaces
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 104 UPDATE
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.78.104.224>
 Remote-Party-ID: <sip:1003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[47] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK75499c2eff
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 106 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[48] INVITE sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK77c2380d
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 107 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1000@10.78.104.224>
 Remote-Party-ID: <sip:1000@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>;video;audio
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[49] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK76303c0ef3
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 104 UPDATE
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation

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P-Asserted-Identity: <sip:1000@10.78.104.222>
 Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[50] INVITE sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK784c9a768b
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 105 INVITE
 Max-Forwards: 70
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 P-Asserted-Identity: <sip:1003@10.78.104.224>
 Remote-Party-ID: <sip:1003@10.78.104.224>;party=calling;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>;video;audio
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[51] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK77c2380d
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 107 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[52] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK784c9a768b
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 105 INVITE
 Allow-Events: presence, kpml
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[53] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK77c2380d
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:51 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 107 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Session-Expires: 1800;refresher=uas
 Require: timer
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 322

v=0
 o=CiscoSystemsCCM-SIP 2000 7 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 4000 RTP/AVP 0 8 18 101
 a=rtpmap:0 PCMU/8000

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```

a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[54] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK784c9a768b
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 105 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Session-Expires: 1800;refresher=uas
Require: timer
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 433

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.66.211
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 9 0 8 116 18 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:8 PCMA/8000
a=ptime:20
a=rtpmap:116 iLBC/8000
a=ptime:20
a=maxptime:60
a=fmtp:116 mode=20
a=rtpmap:18 G729/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```

[55] ACK sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK795be4b7c9
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
Max-Forwards: 70
CSeq: 105 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 248

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.47.253
b=TIAS:64000
b=AS:64
t=0 0
m=audio 4000 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```


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[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[56] SUBSCRIBE sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7a4e2ab0df

From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680

To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889

Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224

CSeq: 106 SUBSCRIBE

Date: Mon, 22 Nov 2010 05:04:51 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 7200

Contact: <sip:10.78.104.224:5060;transport=tcp>

P-Asserted-Identity: <sip:3003@10.78.104.224>

Accept: application/kpml-response+xml

Max-Forwards: 70

Content-Type: application/kpml-request+xml

Content-Length: 370

<?xml version="1.0" encoding="UTF-8" ?>

<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

<pattern interdigittimer="7260000" persist="persist">

<regex tag="dtmf">[x*#ABCD]</regex>

</pattern>

</kpml-request>

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[57] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7b788b564b

From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678

To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887

Date: Mon, 22 Nov 2010 05:04:51 GMT

Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224

Max-Forwards: 70

CSeq: 107 ACK

Allow-Events: presence, kpml

Content-Type: application/sdp

Content-Length: 248

v=0

o=CiscoSystemsCCM-SIP 2000 7 IN IP4 10.78.104.224

s=SIP Call

c=IN IP4 10.104.66.211

b=TIAS:64000

b=AS:64

t=0 0

m=audio 4000 RTP/AVP 0 101

a=rtpmap:0 PCMU/8000

a=ptime:20

a=inactive

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[58] SUBSCRIBE sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7c120f70b9

From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678

To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887

Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224

CSeq: 108 SUBSCRIBE

Date: Mon, 22 Nov 2010 05:04:51 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 7200

Contact: <sip:10.78.104.224:5060;transport=tcp>

P-Asserted-Identity: <sip:3003@10.78.104.224>

Accept: application/kpml-response+xml

Max-Forwards: 70

Content-Type: application/kpml-request+xml

Content-Length: 370

<?xml version="1.0" encoding="UTF-8" ?>

<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

<pattern interdigittimer="7260000" persist="persist">

<regex tag="dtmf">[x*#ABCD]</regex>

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</pattern>

</kpml-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[59] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4831c402de

From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889

To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680

Date: Mon, 22 Nov 2010 05:04:51 GMT

Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224

Supported: timer,resource-priority,replaces

Min-SE: 1800

Cisco-Guid: 4189357312-0000065536-0000000031-3764932106

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 102 INVITE

Max-Forwards: 70

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uac

P-Asserted-Identity: <sip:1000@10.78.104.222>

Remote-Party-ID: <sip:1000@10.78.104.222>;party=calling;screen=yes;privacy=off

Contact: <sip:3003@10.78.104.222:5060;transport=tcp>;video;audio

Content-Type: application/sdp

Content-Length: 237

v=0

o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.78.104.222

s=SIP Call

c=IN IP4 10.104.66.211

b=TIAS:64000

b=AS:64

t=0 0

m=audio 24580 RTP/AVP 0 101

a=rtpmap:0 PCMU/8000

a=ptime:20

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[60] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4831c402de

From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889

To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680

Date: Mon, 22 Nov 2010 05:04:52 GMT

Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224

CSeq: 102 INVITE

Allow-Events: presence, kpml

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[61] INVITE sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7d5f6726bf

From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678

To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887

Date: Mon, 22 Nov 2010 05:04:52 GMT

Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 109 INVITE

Max-Forwards: 70

Expires: 180

Allow-Events: presence, kpml

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Session-Expires: 1800;refresher=uas

P-Asserted-Identity: <sip:1000@10.78.104.224>

Remote-Party-ID: <sip:1000@10.78.104.224>;party=calling;screen=yes;privacy=off

Contact: <sip:3003@10.78.104.224:5060;transport=tcp>

Content-Type: application/sdp

Content-Length: 237

v=0

o=CiscoSystemsCCM-SIP 2000 8 IN IP4 10.78.104.224

s=SIP Call

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```

c=IN IP4 10.104.66.211
b=TIAS:64000
b=AS:64
t=0 0
m=audio 24580 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[62] SIP/2.0 100 Trying

```

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7d5f6726bf
From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
Date: Mon, 22 Nov 2010 05:04:52 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
CSeq: 109 INVITE
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[63] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7a4e2ab0df
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:52 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 106 SUBSCRIBE
Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Expires: 7200
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[64] NOTIFY sip:10.78.104.224:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK49ace7904
From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 103 NOTIFY
Max-Forwards: 70
Date: Mon, 22 Nov 2010 05:04:52 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[65] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7c120f70b9
From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
Date: Mon, 22 Nov 2010 05:04:52 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
CSeq: 108 SUBSCRIBE
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Expires: 7200
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[66] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK49ace7904
From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
Date: Mon, 22 Nov 2010 05:04:52 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 103 NOTIFY
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[67] NOTIFY sip:10.78.104.224:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4a39c24569
From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
CSeq: 103 NOTIFY
Max-Forwards: 70
Date: Mon, 22 Nov 2010 05:04:52 GMT
User-Agent: Cisco-CUCM8.5

```

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Event: kpml
 Subscription-State: active;expires=7200
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[68] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4a39c24569
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:52 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 103 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[69] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7d5f6726bf
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:52 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 109 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:1003@10.78.104.222>
 Remote-Party-ID: <sip:1003@10.78.104.222>;party=called;screen=yes;privacy=off
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 237

v=0
 o=CiscoSystemsCCM-SIP 2000 8 IN IP4 10.78.104.222
 s=SIP Call
 c=IN IP4 10.104.47.253
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 21476 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[70] ACK sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7e172afd28
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:52 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 109 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[71] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4831c402de
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Date: Mon, 22 Nov 2010 05:04:52 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1003@10.78.104.224>
 Remote-Party-ID: <sip:1003@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp

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Content-Length: 237

```
v=0
o=CiscoSystemsCCM-SIP 2000 5 IN IP4 10.78.104.224
s=SIP Call
c=IN IP4 10.104.47.253
b=TIAS:64000
b=AS:64
t=0 0
m=audio 21476 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[72] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4b50362434
From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
Date: Mon, 22 Nov 2010 05:04:51 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[73] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4c76e62974
From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
Date: Mon, 22 Nov 2010 05:04:52 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 104 INFO
Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 45
```

b \$

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[74] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4c76e62974
From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
CSeq: 104 INFO
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[75] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK7f6cbec3f7
From: <sip:1003@10.78.104.222>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:52 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 107 INFO
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: application/qsig
Content-Disposition: signal;handling=optional
Content-Length: 45
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[76] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK7f6cbec3f7
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 107 INFO
```

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Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[77] INVITE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4d1009b0fb
From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
Supported: timer,resource-priority,replaces
Min-SE: 1800
Cisco-Guid: 4049357312-0000065536-0000000030-3764932106
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 105 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uac
P-Asserted-Identity: <sip:1003@10.78.104.222>
Remote-Party-ID: <sip:1003@10.78.104.222>;party=calling;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.222:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 243

v=0
o=CiscoSystemsCCM-SIP 2000 9 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 0.0.0.0
b=TIAS:64000
b=AS:64
t=0 0
m=audio 21476 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[78] SIP/2.0 100 Trying
Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4d1009b0fb
From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
CSeq: 105 INVITE
Allow-Events: presence, kpml
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[79] INVITE sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8019eaaeeb
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM8.5
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 108 INVITE
Max-Forwards: 70
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
P-Asserted-Identity: <sip:1003@10.78.104.224>
Remote-Party-ID: <sip:1003@10.78.104.224>;party=calling;screen=yes;privacy=off
Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 243

v=0
o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.78.104.224
s=SIP Call

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```

c=IN IP4 0.0.0.0
b=TIAS:64000
b=AS:64
t=0 0
m=audio 21476 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[80] SIP/2.0 100 Trying

```

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8019eaaeeb
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 108 INVITE
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[81] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8019eaaeeb
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
CSeq: 108 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Session-Expires: 1800;refresher=uas
Require: timer
P-Asserted-Identity: <sip:1000@10.78.104.222>
Remote-Party-ID: <sip:1000@10.78.104.222>;party=called;screen=yes;privacy=off
Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
Content-Type: application/sdp
Content-Length: 249

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 6 IN IP4 10.78.104.222
s=SIP Call
c=IN IP4 10.104.66.211
b=TIAS:64000
b=AS:64
t=0 0
m=audio 24580 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[82] ACK sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8167c3e745
From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
Max-Forwards: 70
CSeq: 108 ACK
Allow-Events: presence, kpml
Content-Length: 0

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[83] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4d1009b0fb
From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
Date: Mon, 22 Nov 2010 05:04:54 GMT
Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
CSeq: 105 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence, kpml
Supported: replaces

```

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Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uac
 Require: timer
 P-Asserted-Identity: <sip:1000@10.78.104.224>
 Remote-Party-ID: <sip:1000@10.78.104.224>;party=called;screen=yes;privacy=off
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 249

v=0
 o=CiscoSystemsCCM-SIP 2000 9 IN IP4 10.78.104.224
 s=SIP Call
 c=IN IP4 10.104.66.211
 b=TIAS:64000
 b=AS:64
 t=0 0
 m=audio 24580 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=inactive
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[84] ACK sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4e7d66ead8
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 Max-Forwards: 70
 CSeq: 105 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[85] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4f505a6a5e
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 104 INFO
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

E

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[86] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK4f505a6a5e
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 104 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[87] INFO sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK821f31592
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 110 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

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[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[88] INFO sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK834a591faf
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 109 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 7

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[89] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK821f31592
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 110 INFO
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[90] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK834a591faf
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 109 INFO
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[91] BYE sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK50189f9bb0
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 105 BYE
 Reason: Q.850;cause=16
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

Z

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[92] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK50189f9bb0
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 105 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]
[93] INFO sip:3003@10.78.104.224:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK515b7c9d60
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 106 INFO
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional

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Content-Length: 7

M

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[94] SUBSCRIBE sip:1000@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK841266a29b
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 110 SUBSCRIBE
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.78.104.224:5060;transport=tcp>
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[95] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK515b7c9d60
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 106 INFO
 Contact: <sip:3003@10.78.104.224:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[96] BYE sip:3003@10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK854055d66d
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 CSeq: 111 BYE
 Reason: Q.850;cause=16
 Content-Type: application/qsig
 Content-Disposition: signal;handling=optional
 Content-Length: 11

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[97] NOTIFY sip:10.78.104.222:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5245030652
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 106 NOTIFY
 Max-Forwards: 70
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[98] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK841266a29b
 From: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 To: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 110 SUBSCRIBE
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[99] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5245030652
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889

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To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 106 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[100] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK854055d66d
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 111 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[101] NOTIFY sip:10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5377c43fbf
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 107 NOTIFY
 Max-Forwards: 70
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:1000@10.78.104.222:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[102] NOTIFY sip:10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK54491c06a3
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 107 NOTIFY
 Max-Forwards: 70
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[103] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5377c43fbf
 From: <sip:1000@10.78.104.222>;tag=70~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116889
 To: <sip:3003@10.78.104.224>;tag=65~90ce1c36-0714-4216-9452-18b053831298-26093680
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f9b48500-ce91f9db-1f-e0684e0a@10.78.104.224
 CSeq: 107 NOTIFY
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[104] SUBSCRIBE sip:1003@10.78.104.222:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.224:5060;branch=z9hG4bK8617b5de64
 From: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 112 SUBSCRIBE
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.78.104.224:5060;transport=tcp>
 P-Asserted-Identity: <sip:3003@10.78.104.224>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[105] SIP/2.0 200 OK

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Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK54491c06a3
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 107 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[106] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK8617b5de64
 From: <sip:3003@10.78.104.222>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 To: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 112 SUBSCRIBE
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[107] NOTIFY sip:10.78.104.224:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5511a807b3
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 108 NOTIFY
 Max-Forwards: 70
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated;reason=timeout
 Contact: <sip:1003@10.78.104.222:5060;transport=tcp>
 Content-Type: application/kpml-response+xml
 Content-Length: 348

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits=""
forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[108] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP 10.78.104.222:5060;branch=z9hG4bK5511a807b3
 From: <sip:1003@10.78.104.222>;tag=68~17ac8843-1e62-4eac-8a1a-2f78212c86cf-26116887
 To: <sip:3003@10.78.104.224>;tag=63~90ce1c36-0714-4216-9452-18b053831298-26093678
 Date: Mon, 22 Nov 2010 05:04:54 GMT
 Call-ID: f15c4a00-ce91f9cd-1e-e0684e0a@10.78.104.224
 CSeq: 108 NOTIFY
 Content-Length: 0

CISCO CONFIDENTIAL**31. StaticCallRouting****31.1 Failover with multiple destination addresses configured on a SIPTrunk**

Title: Failover with multiple destination addresses configured on a SIPTrunk

Description:

The following call flow illustrates the SIP messaging that takes place between a Cisco Unified CM and two SIP devices via a SIP trunk.

Cisco Unified CM sent out the initial INVITE to SIP device A.

SIP device A returned "503 Service Unavailable".

Cisco Unified CM sent out another initial INVITE to SIP device B.

Call got connected.

Configuration:

Node = Unified CM, IP = 10.89.78.205

Node = SIP device A, IP = 10.1.201.227

Node = SIP device B, IP = 10.89.78.195

Phone = A, Line = 1001, IP = 10.8.28.121, Model = SCCP

Phone = B, Line = 2002, IP = 10.8.28.253, Model = SCCP

SIP Trunk on Unified CM1 has route pattern 2.XXXX.

SIP Trunk has two destination addresses, 10.1.201.227 (SIP device A) and 10.89.78.195 (SIP device B).

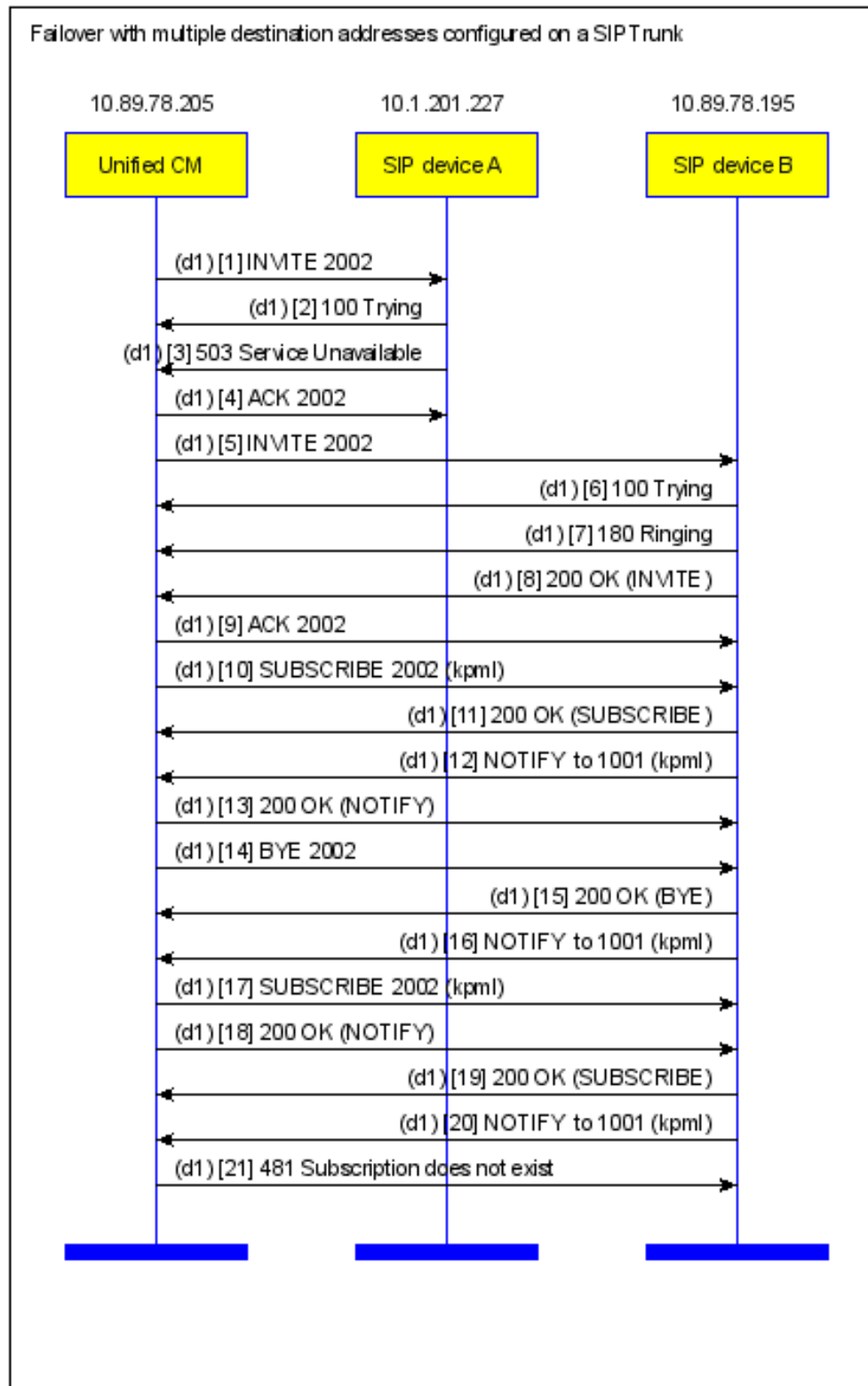
Scenario:

Phone A DN 1001 calls Phone B DN 2002 over the SIP Trunk by dialing 22002

Phone B DN 2002 Answers

Phone A DN 1001 goes onHook

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:2002@10.1.201.227:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK365e3d0311
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.1.201.227>
 Date: Thu, 09 Dec 2010 23:56:21 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 3936372224-0000065536-0000000012-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 212

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 24618 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK365e3d0311
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.1.201.227>
 Date: Thu, 09 Dec 2010 23:56:22 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] SIP/2.0 503 Service Unavailable**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK365e3d0311
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.1.201.227>;tag=978620619
 Date: Thu, 09 Dec 2010 23:56:22 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 101 INVITE
 Allow-Events: presence
 Warning: 399 rtp-ccm5 "Unable to find a device handler for the request received on port 5060 from 10.89.78.205"
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[4] ACK sip:2002@10.1.201.227:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK365e3d0311
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.1.201.227>;tag=978620619
 Date: Thu, 09 Dec 2010 23:56:21 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[5] INVITE sip:2002@10.89.78.195:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3767b66466
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.89.78.195>
 Date: Thu, 09 Dec 2010 23:56:22 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 Supported: timer,resource-priority,replaces

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Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 102 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 3936372224-0000065536-0000000012-3444463882
 Session-Expires: 1800
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Remote-Party-ID: <sip:1001@10.89.78.205>;party=calling;screen=yes;privacy=off
 Contact: <sip:1001@10.89.78.205:5060;transport=tcp>
 Max-Forwards: 70
 Content-Type: application/sdp
 Content-Length: 212

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.205
 s=SIP Call
 c=IN IP4 10.89.78.205
 t=0 0
 m=audio 24618 RTP/AVP 0 101
 a=rtpmap:0 PCMU/8000
 a=ptime:20
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3767b66466
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.89.78.195>
 Date: Thu, 09 Dec 2010 23:56:22 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3767b66466
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
 Date: Thu, 09 Dec 2010 23:56:22 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3767b66466
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
 Date: Thu, 09 Dec 2010 23:56:22 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 102 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence, kpml
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:2002@10.89.78.195>
 Remote-Party-ID: <sip:2002@10.89.78.195>;party=called;screen=yes;privacy=off
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 211

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.89.78.195
 s=SIP Call

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```
c=IN IP4 10.8.28.253
t=0 0
m=audio 16584 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[9] ACK sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3838bfb8ce
From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
Date: Thu, 09 Dec 2010 23:56:22 GMT
Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence, kpml
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[10] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK392f31db0f
From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
CSeq: 103 SUBSCRIBE
Date: Thu, 09 Dec 2010 23:56:23 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.89.78.205:5060;transport=tcp>
P-Asserted-Identity: <sip:1001@10.89.78.205>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">
```

```
  <pattern interdigittimer="7260000" persist="persist">
    <regex tag="dtmf">[x*#ABCD]</regex>
  </pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[11] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK392f31db0f
From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
Date: Thu, 09 Dec 2010 23:56:23 GMT
Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
CSeq: 103 SUBSCRIBE
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[12] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK265825c18e
From: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
To: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
CSeq: 101 NOTIFY
Max-Forwards: 70
Date: Thu, 09 Dec 2010 23:56:23 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Subscription-State: active;expires=7200
Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

```
[13] SIP/2.0 200 OK
Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK265825c18e
From: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
To: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
```


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Date: Thu, 09 Dec 2010 23:56:23 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 101 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] BYE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3a2a2316c4
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
 Date: Thu, 09 Dec 2010 23:56:22 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3a2a2316c4
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
 Date: Thu, 09 Dec 2010 23:56:28 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 104 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK27483ebbc3
 From: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
 To: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Max-Forwards: 70
 Date: Thu, 09 Dec 2010 23:56:28 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Subscription-State: terminated
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SUBSCRIBE sip:2002@10.89.78.195:5060;transport=tcp SIP/2.0
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3b5a0c63a3
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 105 SUBSCRIBE
 Date: Thu, 09 Dec 2010 23:56:28 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.89.78.205:5060;transport=tcp>
 P-Asserted-Identity: <sip:1001@10.89.78.205>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK27483ebbc3
 From: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
 To: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 Date: Thu, 09 Dec 2010 23:56:28 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 102 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 200 OK
 Via: SIP/2.0/TCP 10.89.78.205:5060;branch=z9hG4bK3b5a0c63a3
 From: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698
 To: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425
 Date: Thu, 09 Dec 2010 23:56:28 GMT
 Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205
 CSeq: 105 SUBSCRIBE
 Contact: <sip:2002@10.89.78.195:5060;transport=tcp>
 Expires: 0
 Content-Length: 0

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[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[20] NOTIFY sip:10.89.78.205:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK2854617d87

From: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425

To: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698

Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205

CSeq: 103 NOTIFY

Max-Forwards: 70

Date: Thu, 09 Dec 2010 23:56:28 GMT

User-Agent: Cisco-CUCM8.5

Event: kpml

Subscription-State: terminated;reason=timeout

Contact: <sip:2002@10.89.78.195:5060;transport=tcp>

Content-Type: application/kpml-response+xml

Content-Length: 348

<?xml version="1.0" encoding="UTF-8" ?>

<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-response kpml-response.xsd" code="487" digits="" forced_flush="false" suppressed="false" tag="dtmf" text="Subscription Expired" version="1.0"/>

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[21] SIP/2.0 481 Subscription does not exist

Via: SIP/2.0/TCP 10.89.78.195:5060;branch=z9hG4bK2854617d87

From: <sip:2002@10.89.78.195>;tag=510~e811c00a-4a66-4296-a800-0718da03b731-33547425

To: <sip:1001@10.89.78.205>;tag=28~1ebcd687-60ae-450a-823c-0469b2740097-32848698

Date: Thu, 09 Dec 2010 23:56:28 GMT

Call-ID: eaa04600-d0116ca5-b-cd4e590a@10.89.78.205

CSeq: 103 NOTIFY

Content-Length: 0

CISCO CONFIDENTIAL**32. H264VideoTelepresenceFor3rdPartyEP****32.1 Basic Call from RT(SIP) to Polycom (SIP)**

Title: Basic Call from RT(SIP) to Polycom (SIP)

Description:

The following call flow illustrates the SIP messaging that takes place between Cisco Unified CM via for a call from from RT(SIP) to Polycom (SIP)

RT sends the first Invite to CUCM

Configuration:

Node = Unified CM1, IP = 10.77.31.180

Phone = A, Line = 18001, IP = 10.77.31.138, Model = 9971 (SIP)

Phone = B, Line = 18020, IP = 10.77.31.212, Model = Polycom (SIP)

Scenario:

Phone A calls Phone B

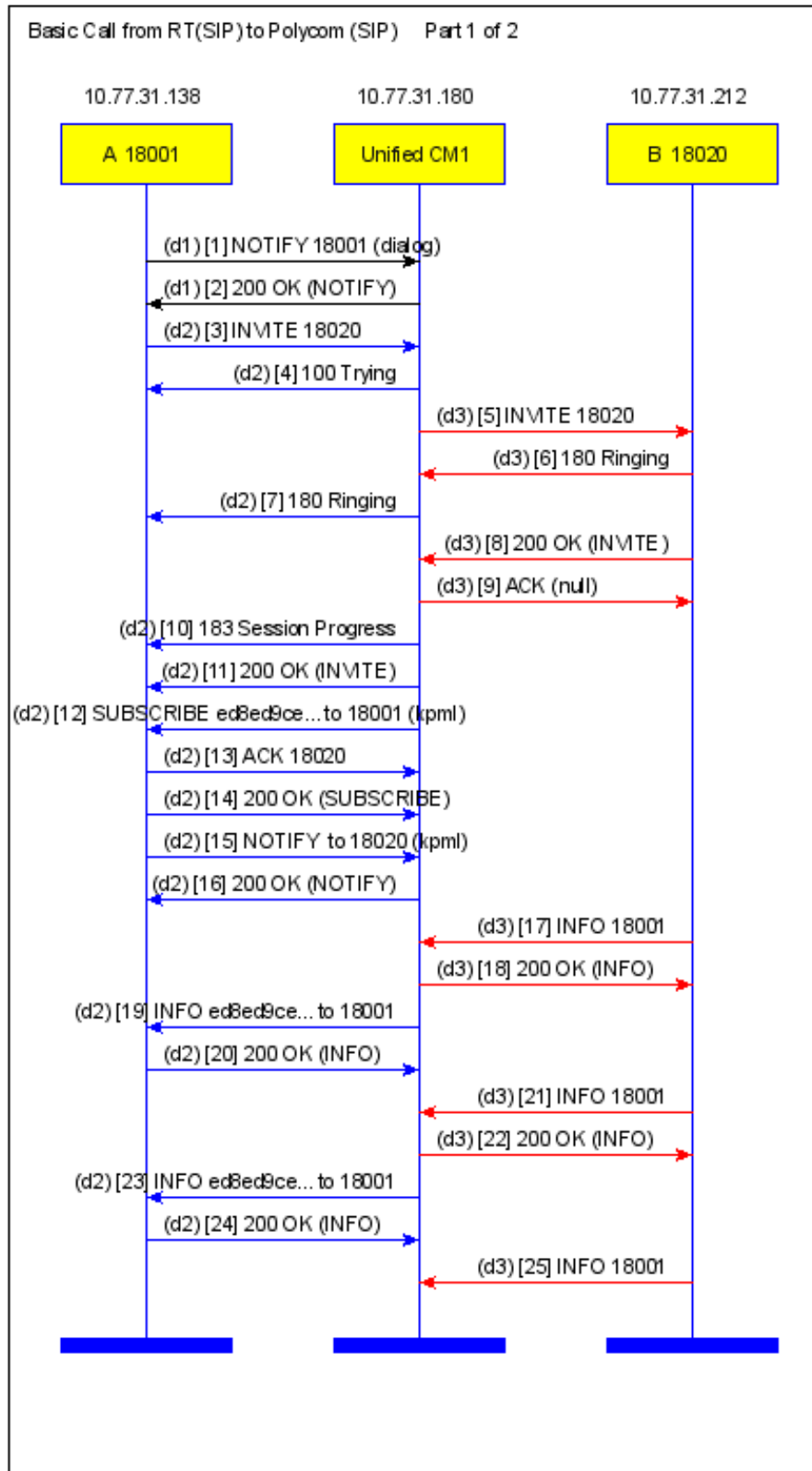
Phone B Answers

Both remain in the call for about 30 sec

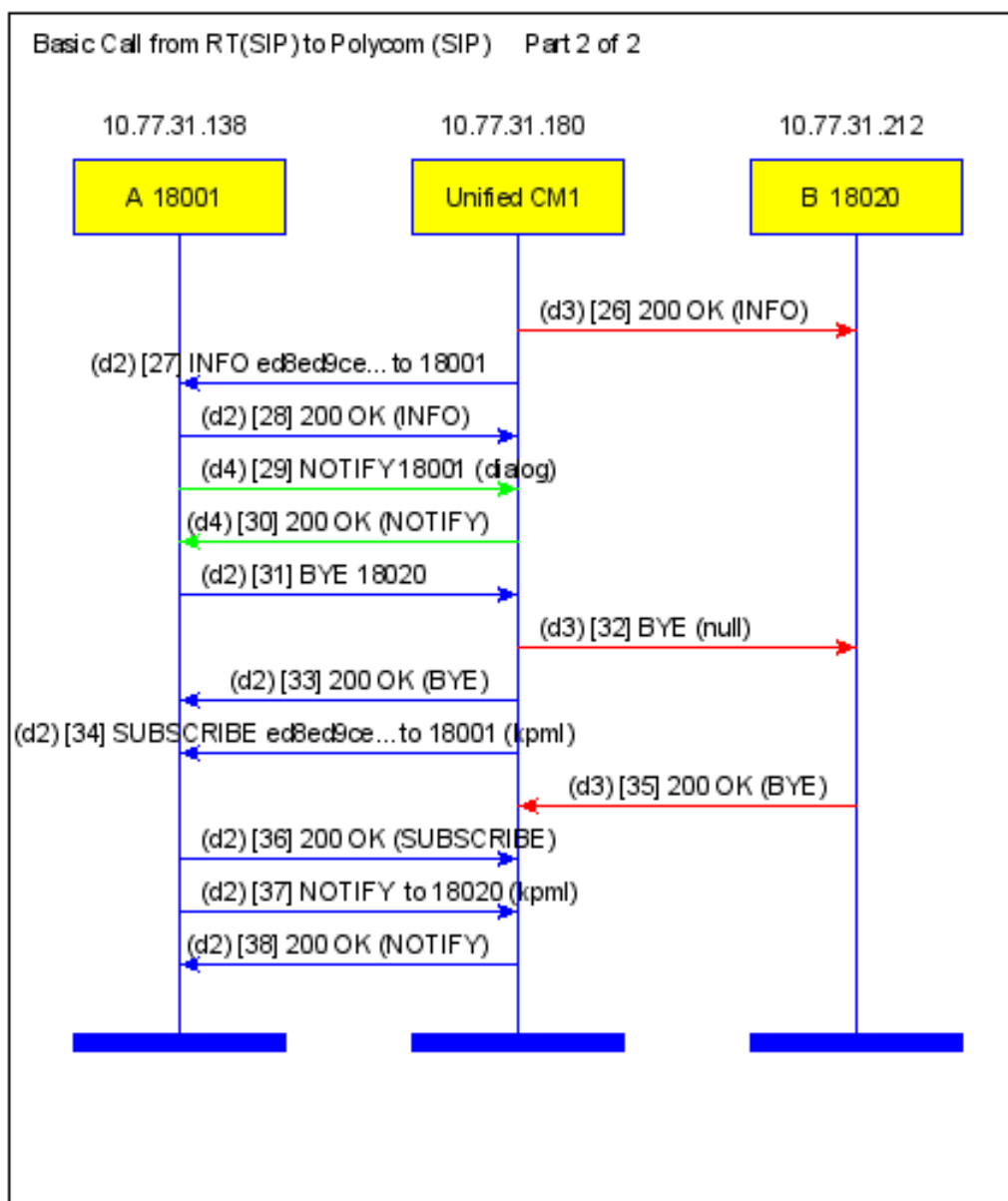
Phone A ends the call

End of Scenario

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[diagram] Call-ID:[prev][next]

[1] NOTIFY sip:18001@10.77.31.180 SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK562eda6d

To: <sip:18001@10.77.31.180>

From: <sip:18001@10.77.31.180>;tag=1c17d34190b700895714a57f-5e595664

Call-ID: 644f2ff9-3aa99681@10.77.31.138

Date: Wed, 15 Dec 2010 14:46:01 GMT

CSeq: 25 NOTIFY

Event: dialog

Subscription-State: active

Max-Forwards: 70

Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 355

Content-Type: application/dialog-info+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8" ?>

<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="0" state="partial" entity="sip:18001@10.77.31.138">

<dialog id="17" call-id="1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138" local-tag="1c17d34190b700884f4d48d9-3b681054"><state>trying</state></dialog>

</dialog-info>

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK562eda6d

From: <sip:18001@10.77.31.180>;tag=1c17d34190b700895714a57f-5e595664

To: <sip:18001@10.77.31.180>;tag=540959688

Date: Wed, 15 Dec 2010 14:46:01 GMT

Call-ID: 644f2ff9-3aa99681@10.77.31.138

CSeq: 25 NOTIFY

Content-Length: 0

[diagram] Call-ID:[prev][next]

[3] INVITE sip:18020@10.77.31.180 SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK0b6b399a

From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054

To: <sip:18020@10.77.31.180>

Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138

Max-Forwards: 70

Date: Wed, 15 Dec 2010 14:46:01 GMT

CSeq: 101 INVITE

User-Agent: Cisco-CP9971/9.1.1

Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=tcp>

Expires: 180

Accept: application/sdp

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO

Remote-Party-ID: "18001" <sip:18001@10.77.31.180>;party=calling;id-type=subscriber;privacy=off;screen=yes

Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.0.1

Allow-Events: kpml, dialog

Content-Length: 697

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 95 0 IN IP4 10.77.31.138

s=SIP Call

t=0 0

m=audio 32428 RTP/AVP 0 8 18 102 9 116 124 101

c=IN IP4 10.77.31.138

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:102 L16/16000

a=rtpmap:9 G722/8000

a=rtpmap:116 iLBC/8000

a=fmtp:116 mode=20

a=rtpmap:124 ISAC/16000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

m=video 27756 RTP/AVP 126 97

c=IN IP4 10.77.31.138

b=TIAS:1000000

a=rtpmap:126 H264/90000

a=fmtp:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1

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a=rtmap:97 H264/90000
 a=fmtp:97 profile-level-id=42801E;packetization-mode=0;level-asymmetry-allowed=1
 a=sendrecv

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[4] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK0b6b399a
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 To: <sip:18020@10.77.31.180>
 Date: Wed, 15 Dec 2010 14:46:01 GMT
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] INVITE sip:18020@10.77.31.212:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bK269bf1a2b
 From: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
 To: <sip:18020@10.77.31.212>
 Date: Wed, 15 Dec 2010 14:46:01 GMT
 Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.77.31.180:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 0128360448-0000065536-0000000001-3021950218
 Session-Expires: 1800
 P-Asserted-Identity: <sip:18001@10.77.31.180>
 Remote-Party-ID: <sip:18001@10.77.31.180>;party=calling;screen=yes;privacy=off
 Contact: <sip:18001@10.77.31.180:5060>;video;audio
 Max-Forwards: 69
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bK269bf1a2b
 From: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
 To: <sip:18020@10.77.31.212>;tag=plcm_703928000-950164610
 Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
 CSeq: 101 INVITE
 Supported: ms-forking,timer
 Contact: <sip:(null)@10.77.31.212:5060;transport=udp>;proxy=replace
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[7] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK0b6b399a
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 Date: Wed, 15 Dec 2010 14:46:01 GMT
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-2001; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:18020@10.77.31.180>;party=called;screen=yes;privacy=off
 Contact: <sip:18020@10.77.31.180:5060;transport=tcp>;proxy=replace
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[8] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bK269bf1a2b
 From: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
 To: <sip:18020@10.77.31.212>;tag=plcm_703928000-950164610
 Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
 CSeq: 101 INVITE
 Session-Expires: 1800;refresher=uas
 Supported: ms-forking,timer
 Contact: <sip:(null)@10.77.31.212:5060;transport=udp>;proxy=replace
 Allow: INVITE, BYE, CANCEL, ACK, INFO, PRACK, COMET, OPTIONS, SUBSCRIBE, NOTIFY, REFER, REGISTER, UPDATE

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User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Content-Type: application/sdp
 Content-Length: 894

```
v=0
o=PolyHD2 1808395954 0 IN IP4 10.77.31.212
s=-
c=IN IP4 10.77.31.212
b=AS:1472
t=0 0
m=audio 49166 RTP/AVP 115 102 9 15 0 8 18 119
a=rtpmap:115 G7221/32000
a=fmtp:115 bitrate=48000
a=rtpmap:102 G7221/16000
a=fmtp:102 bitrate=32000
a=rtpmap:9 G722/8000
a=rtpmap:15 G728/8000
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=fmtp:18 annexb=no
a=rtpmap:119 telephone-event/8000
a=fmtp:119 0-15
a=sendrecv
m=video 49168 RTP/AVP 109 96 34 31
b=TIAS:1472000
a=rtpmap:109 H264/90000
a=fmtp:109 profile-level-id=42800d; max-mbps=108000; max-fs=3600; max-br=1600; sar=13
a=rtpmap:96 H263-1998/90000
a=fmtp:96 CIF4=2;CIF=1;QCIF=1;SQCIF=1
a=rtpmap:34 H263/90000
a=fmtp:34 CIF4=2;CIF=1;QCIF=1;SQCIF=1
a=rtpmap:31 H261/90000
a=fmtp:31 CIF=1;QCIF=1
a=sendrecv
a=rtcp-fb:* ccm fir tmmbr
m=application 49170 RTP/AVP 100
a=rtpmap:100 H224/4800
a=sendrecv
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[9] ACK sip:(null)@10.77.31.212:5060;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bK330232d2b
 From: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
 To: <sip:18020@10.77.31.212>;tag=plcm_703928000-950164610
 Date: Wed, 15 Dec 2010 14:46:01 GMT
 Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
 Max-Forwards: 70
 CSeq: 101 ACK
 Allow-Events: presence, kpml
 Content-Type: application/sdp
 Content-Length: 398

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.180
s=SIP Call
c=IN IP4 10.77.31.138
b=AS:320
t=0 0
m=audio 32428 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 27756 RTP/AVP 97
b=TIAS:320000
a=rtpmap:97 H264/90000
a=fmtp:97 profile-level-id=42801E;packetization-mode=0;level-asymmetry-allowed=1
m=application 0 RTP/AVP 100
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK0b6b399a
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 Date: Wed, 15 Dec 2010 14:46:01 GMT
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence

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```

Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
gci= 1-2001; call-instance= 1
Send-Info: conference, x-cisco-conference
Remote-Party-ID: <sip:18020@10.77.31.180>;party=called;screen=yes;privacy=off
Contact: <sip:18020@10.77.31.180:5060;transport=tcp> ;proxy=replace
Content-Type: application/sdp
Content-Length: 394

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.180
s=SIP Call
c=IN IP4 10.77.31.212
t=0 0
m=audio 49166 RTP/AVP 9 119
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:119 telephone-event/8000
a=fmtp:119 0-15
m=video 49168 RTP/AVP 109
b=TIAS:320000
a=rtpmap:109 H264/90000
a=fmtp:109 profile-level-id=42800D;max-mbps=108000;max-fs=3600;max-cpb=64;max-br=1600
a=rtcp-fb:* ccm fir tmmbr

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 200 OK

```

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK0b6b399a
From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
Date: Wed, 15 Dec 2010 14:46:01 GMT
Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: replaces
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-2001; call-
instance= 1
Send-Info: conference, x-cisco-conference
Remote-Party-ID: <sip:18020@10.77.31.180>;party=called;screen=yes;privacy=off
Contact: <sip:18020@10.77.31.180:5060;transport=tcp> ;proxy=replace
Content-Type: application/sdp
Content-Length: 394

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.180
s=SIP Call
c=IN IP4 10.77.31.212
t=0 0
m=audio 49166 RTP/AVP 9 119
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:119 telephone-event/8000
a=fmtp:119 0-15
m=video 49168 RTP/AVP 109
b=TIAS:320000
a=rtpmap:109 H264/90000
a=fmtp:109 profile-level-id=42800D;max-mbps=108000;max-fs=3600;max-cpb=64;max-br=1600
a=rtcp-fb:* ccm fir tmmbr

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SUBSCRIBE sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=tcp SIP/2.0

```

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK442b0eb52
From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
CSeq: 101 SUBSCRIBE
Date: Wed, 15 Dec 2010 14:46:12 GMT
User-Agent: Cisco-CUCM8.5
Event: kpml
Expires: 7200
Contact: <sip:10.77.31.180:5060;transport=tcp>
Accept: application/kpml-response+xml
Max-Forwards: 70
Content-Type: application/kpml-request+xml
Content-Length: 370

```

```

<?xml version="1.0" encoding="UTF-8" ?>
<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

```


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```
<pattern interdigittimer="7260000" persist="persist">
  <regex tag="dtmf">[x*#ABCD]</regex>
</pattern>
```

```
</kpml-request>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] ACK sip:18020@10.77.31.180:5060;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK628b3c41
From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
Max-Forwards: 70
Date: Wed, 15 Dec 2010 14:46:13 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP9971/9.1.1
Remote-Party-ID: "18001" <sip:18001@10.77.31.180>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK442b0eb52
From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
Date: Wed, 15 Dec 2010 14:46:13 GMT
CSeq: 101 SUBSCRIBE
Server: Cisco-CP9971/9.1.1
Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>
Expires: 7200
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] NOTIFY sip:10.77.31.180:5060 SIP/2.0

```
Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK05c47a07
To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
Date: Wed, 15 Dec 2010 14:46:13 GMT
CSeq: 102 NOTIFY
Event: kpml
Subscription-State: active; expires=7200
Max-Forwards: 70
Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK05c47a07
From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
Date: Wed, 15 Dec 2010 14:46:12 GMT
Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
CSeq: 102 NOTIFY
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] INFO sip:18001@10.77.31.180:5060 SIP/2.0

```
Via: SIP/2.0/UDP 10.77.31.212:5060;branch=z9hG4bK715233000-950164611
Max-Forwards: 70
Allow: INVITE,BYE,CANCEL,ACK,INFO,PRACK,COMET,OPTIONS,SUBSCRIBE,NOTIFY,REFER,REGISTER,UPDATE
Supported: ms-forking,replaces
From: <sip:18020@10.77.31.212> ;tag=plcm_703928000-950164610
To: <sip:18001@10.77.31.180> ;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
CSeq: 2 INFO
Contact: <sip:(null)@10.77.31.212:5060;transport=udp> ;proxy=replace
User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
Content-Type: application/media_control+xml
Content-Length: 177
```

```
<?xml version="1.0" encoding="utf-8" ?>
<media_control>
  <vc_primitive>
    <to_encoder>
      <picture_fast_update>
    </picture_fast_update>
    </to_encoder>
  </vc_primitive>
```

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```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

```
Via: SIP/2.0/UDP 10.77.31.212:5060;branch=z9hG4bK715233000-950164611
From: <sip:18020@10.77.31.212> ;tag=plcm_703928000-950164610
To: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
Date: Wed, 15 Dec 2010 14:46:12 GMT
Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
CSeq: 2 INFO
Contact: <sip:18001@10.77.31.180:5060>
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] INFO sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=tcp SIP/2.0

```
Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK53517ebfc
From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
Date: Wed, 15 Dec 2010 14:46:12 GMT
Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 INFO
Contact: <sip:18020@10.77.31.180:5060;transport=tcp>
Content-Type: application/media_control+xml
Content-Length: 190
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

```
Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK53517ebfc
From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
Date: Wed, 15 Dec 2010 14:46:13 GMT
CSeq: 102 INFO
Content-Length: 0
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] INFO sip:18001@10.77.31.180:5060 SIP/2.0

```
Via: SIP/2.0/UDP 10.77.31.212:5060;branch=z9hG4bK715637000-950164612
Max-Forwards: 70
Allow: INVITE,BYE,CANCEL,ACK,INFO,PRACK,COMET,OPTIONS,SUBSCRIBE,NOTIFY,REFER,REGISTER,UPDATE
Supported: ms-forking,replaces
From: <sip:18020@10.77.31.212> ;tag=plcm_703928000-950164610
To: <sip:18001@10.77.31.180> ;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
CSeq: 3 INFO
Contact: <sip:(null)@10.77.31.212:5060;transport=udp> ;proxy=replace
User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
Content-Type: application/media_control+xml
Content-Length: 177
```

```
<?xml version="1.0" encoding="utf-8" ?>
<media_control>
<vc_primitive>
  <to_encoder>
    <picture_fast_update>
  </picture_fast_update>
</to_encoder>
</vc_primitive>
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] SIP/2.0 200 OK

```
Via: SIP/2.0/UDP 10.77.31.212:5060;branch=z9hG4bK715637000-950164612
From: <sip:18020@10.77.31.212> ;tag=plcm_703928000-950164610
To: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
Date: Wed, 15 Dec 2010 14:46:13 GMT
Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
```

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CSeq: 3 INFO
 Contact: <sip:18001@10.77.31.180:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] INFO sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK63147902c
 From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 Date: Wed, 15 Dec 2010 14:46:12 GMT
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 103 INFO
 Contact: <sip:18020@10.77.31.180:5060;transport=tcp>
 Content-Type: application/media_control+xml
 Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[24] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK63147902c
 From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 Date: Wed, 15 Dec 2010 14:46:13 GMT
 CSeq: 103 INFO
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[25] INFO sip:18001@10.77.31.180:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.212:5060;branch=z9hG4bK715698000-950164613
 Max-Forwards: 70
 Allow: INVITE, BYE, CANCEL, ACK, INFO, PRACK, COMET, OPTIONS, SUBSCRIBE, NOTIFY, REFER, REGISTER, UPDATE
 Supported: ms-forking, replaces
 From: <sip:18020@10.77.31.212>;tag=plcm_703928000-950164610
 To: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
 Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
 CSeq: 4 INFO
 Contact: <sip:(null)@10.77.31.212:5060;transport=udp>;proxy=replace
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Content-Type: application/media_control+xml
 Content-Length: 177

```
<?xml version="1.0" encoding="utf-8" ?>
<media_control>
<vc_primitive>
<to_encoder>
<picture_fast_update>
</picture_fast_update>
</to_encoder>
</vc_primitive>
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.212:5060;branch=z9hG4bK715698000-950164613
 From: <sip:18020@10.77.31.212>;tag=plcm_703928000-950164610
 To: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
 Date: Wed, 15 Dec 2010 14:46:13 GMT
 Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
 CSeq: 4 INFO
 Contact: <sip:18001@10.77.31.180:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] INFO sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK71ecd9634
 From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054

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Date: Wed, 15 Dec 2010 14:46:12 GMT
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 104 INFO
 Contact: <sip:18020@10.77.31.180:5060;transport=tcp>
 Content-Type: application/media_control+xml
 Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK71ecd9634
 From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 Date: Wed, 15 Dec 2010 14:46:13 GMT
 CSeq: 104 INFO
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] NOTIFY sip:18001@10.77.31.180 SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK286899a7
 To: <sip:18001@10.77.31.180>
 From: <sip:18001@10.77.31.180>;tag=1c17d34190b7008a6b58f623-6e06fb3a
 Call-ID: 72745b63-656ad457@10.77.31.138
 Date: Wed, 15 Dec 2010 14:46:48 GMT
 CSeq: 26 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
 Content-Length: 359
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams+xml:ns:dialog-info:dialog:callinfo-dialog" version="1"
state="partial" entity="sip:18001@10.77.31.138">
  <dialog id="17" call-id="1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138" local-
tag="1c17d34190b700884f4d48d9-3b681054"><state>terminated</state></dialog>
</dialog-info>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK286899a7
 From: <sip:18001@10.77.31.180>;tag=1c17d34190b7008a6b58f623-6e06fb3a
 To: <sip:18001@10.77.31.180>;tag=275110574
 Date: Wed, 15 Dec 2010 14:46:47 GMT
 Call-ID: 72745b63-656ad457@10.77.31.138
 CSeq: 26 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] BYE sip:18020@10.77.31.180:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK3beacd6d
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 Max-Forwards: 70
 Date: Wed, 15 Dec 2010 14:46:48 GMT
 CSeq: 103 BYE
 User-Agent: Cisco-CP9971/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] BYE sip:(null)@10.77.31.212:5060;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bK83b0cdeb6
 From: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522

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To: <sip:18020@10.77.31.212> ;tag=plcm_703928000-950164610
 Date: Wed, 15 Dec 2010 14:46:13 GMT
 Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:18001@10.77.31.180>
 CSeq: 102 BYE
 Reason: Q.850;cause=16
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[33] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK3beacd6d
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 Date: Wed, 15 Dec 2010 14:46:47 GMT
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 CSeq: 103 BYE
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[34] SUBSCRIBE sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP SIP/2.0

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK912479629
 From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 CSeq: 105 SUBSCRIBE
 Date: Wed, 15 Dec 2010 14:46:47 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.77.31.180:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[35] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bK83b0cdeb6
 From: <sip:18001@10.77.31.180>;tag=27~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091522
 To: <sip:18020@10.77.31.212> ;tag=plcm_703928000-950164610
 Call-ID: 7a6a000-d081d4a9-3-b41f4d0a@10.77.31.180
 CSeq: 102 BYE
 Contact: <sip:(null)@10.77.31.212:5060;transport=udp> ;proxy=replace
 Allow: INVITE, BYE, CANCEL, ACK, INFO, PRACK, COMET, OPTIONS, SUBSCRIBE, NOTIFY, REFER, REGISTER, UPDATE
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Supported: ms-forking
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[36] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bK912479629
 From: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 Date: Wed, 15 Dec 2010 14:46:48 GMT
 CSeq: 105 SUBSCRIBE
 Server: Cisco-CP9971/9.1.1
 Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>
 Expires: 0
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[37] NOTIFY sip:10.77.31.180:5060 SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK56f85dc9
 To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054
 Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138
 Date: Wed, 15 Dec 2010 14:46:48 GMT
 CSeq: 104 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 214
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8"?>

<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"

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```
suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[38] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK56f85dc9

From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b700884f4d48d9-3b681054

To: <sip:18020@10.77.31.180>;tag=26~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091521

Date: Wed, 15 Dec 2010 14:46:47 GMT

Call-ID: 1c17d341-90b70014-5e5ef189-4db9e1af@10.77.31.138

CSeq: 104 NOTIFY

Content-Length: 0

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32.2 Basic Call from Polycom HD (SIP) to Tandberg HD (SIP)

Title: Basic Call from Polycom HD (SIP) to Tandberg HD (SIP)

Description:

The following call flow illustrates the SIP messaging that takes place between Cisco Unified CM via for a call from from Polycom (SIP) to Tandberg (SIP)
Polycom (SIP) sends the first Invite to CUCM

Configuration:

Node = Unified CM1, IP = 10.77.31.184

Phone = A, Line = 184055, IP = 9.9.9.23, Model = Polycom (SIP)

Phone = B, Line = 184310, IP = 9.9.9.210, Model = Tandberg (SIP)

Scenario:

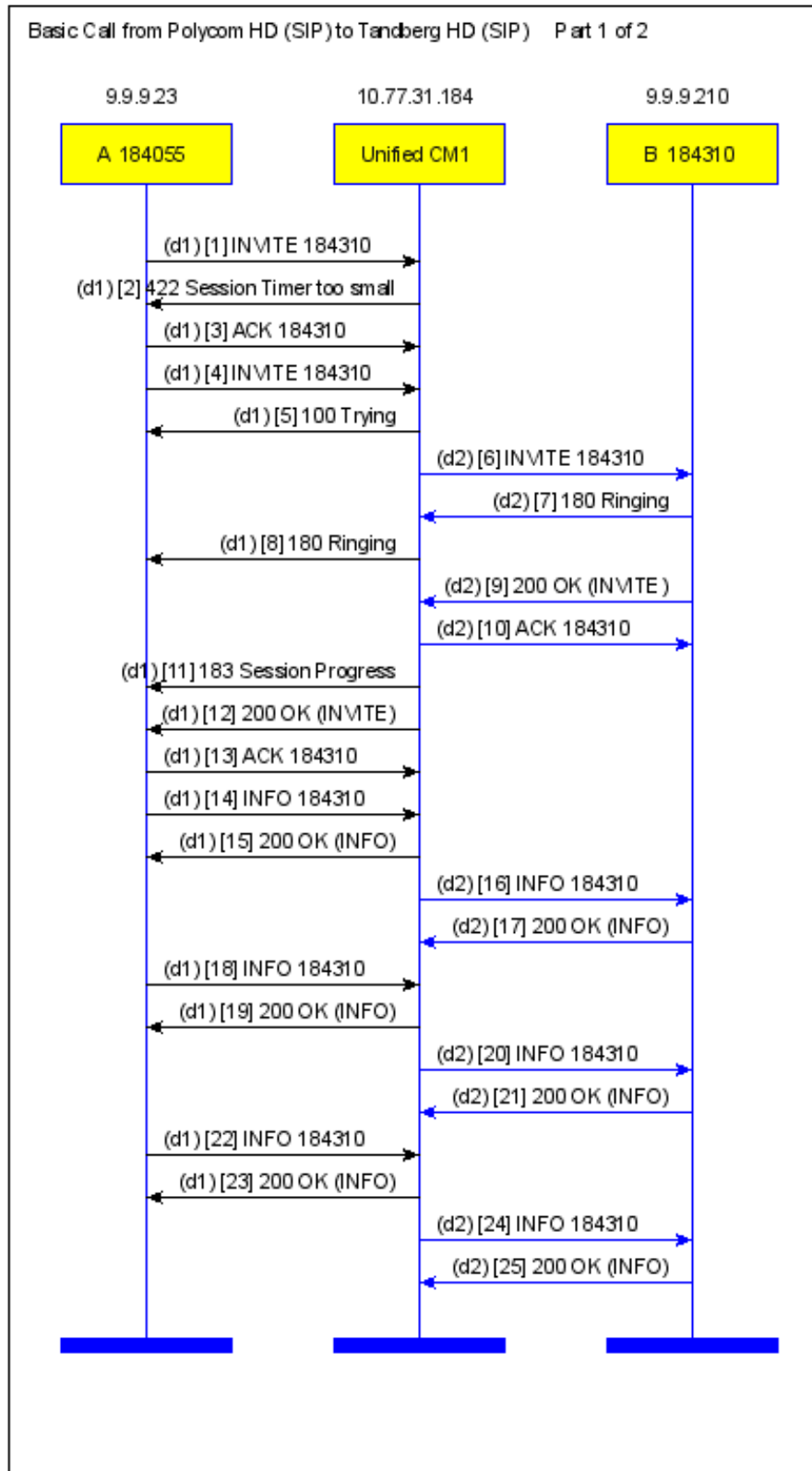
Phone A calls Phone B

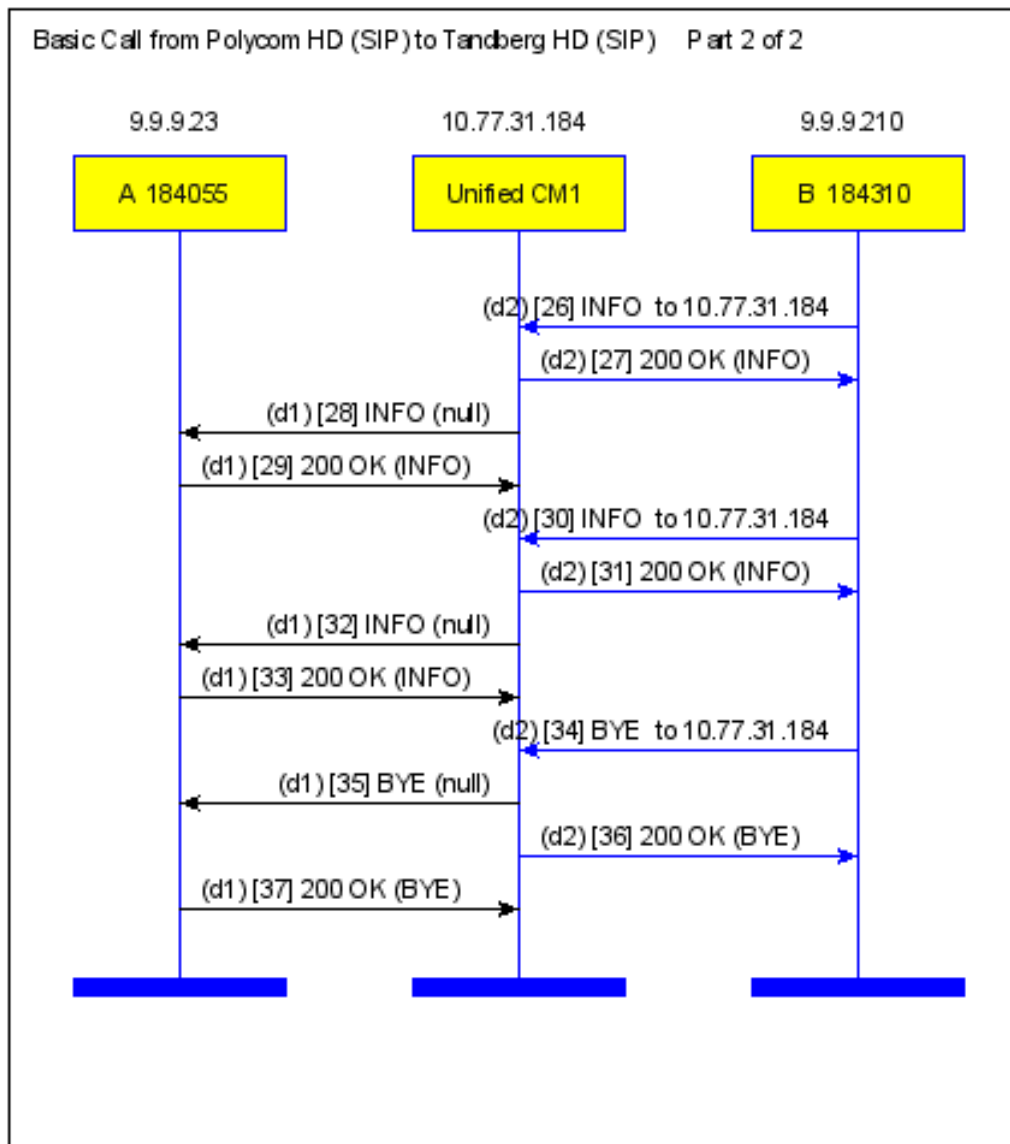
Phone B Answers

Both remain in the call for about 30 sec and the call is ended.

End of Scenario

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[diagram] Call-ID: [prev][next]

[1] INVITE sip:184310@10.77.31.184 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2602880000-287493777

Max-Forwards: 70

Allow: INVITE,BYE,CANCEL,ACK,INFO,PRACK,COMET,OPTIONS,SUBSCRIBE,NOTIFY,REFER,REGISTER,UPDATE

Supported: ms-forking,timer,replaces

From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778

To: <sip:184310@10.77.31.184>

Call-ID: 2602880000-287493776

CSeq: 1 INVITE

Session-Expires: 90

Contact: <sip:(null)@9.9.9.23:5060;transport=udp> ;proxy=replace

User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)

Content-Type: application/sdp

Content-Length: 816

v=0

o=PolyHD2 179283009 0 IN IP4 9.9.9.23

s=-

c=IN IP4 9.9.9.23

b=AS:1472

t=0 0

m=audio 49196 RTP/AVP 115 102 9 15 0 8 18 119

a=rtpmap:115 G7221/32000

a=fmtp:115 bitrate=48000

a=rtpmap:102 G7221/16000

a=fmtp:102 bitrate=32000

a=rtpmap:9 G722/8000

a=rtpmap:15 G728/8000

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:119 telephone-event/8000

a=fmtp:119 0-15

a=sendrecv

m=video 49198 RTP/AVP 109 96 34 31

b=TIAS:1472000

a=rtpmap:109 H264/90000

a=fmtp:109 profile-level-id=42800d; max-mbps=108000; max-fs=3600; max-br=1600; sar=13

a=rtpmap:96 H263-1998/90000

a=fmtp:96 CIF4=2;CIF=1;QCIF=1;SQCIF=1

a=rtpmap:34 H263/90000

a=fmtp:34 CIF4=2;CIF=1;QCIF=1;SQCIF=1

a=rtpmap:31 H261/90000

a=fmtp:31 CIF=1;QCIF=1

a=sendrecv

a=rtcp-fb:* ccm fir tmmbr

[diagram] Call-ID: [prev][next]

[2] SIP/2.0 422 Session Timer too small

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2602880000-287493777

From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778

To: <sip:184310@10.77.31.184> ;tag=1949252601

Date: Thu, 18 Nov 2010 14:06:58 GMT

Call-ID: 2602880000-287493776

CSeq: 1 INVITE

Allow-Events: presence

Min-SE: 1800

Content-Length: 0

[diagram] Call-ID: [prev][next]

[3] ACK sip:184310@10.77.31.184 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2602880000-287493777

Max-Forwards: 70

From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778

To: <sip:184310@10.77.31.184> ;tag=1949252601

Call-ID: 2602880000-287493776

CSeq: 1 ACK

Contact: <sip:(null)@9.9.9.23:5060;transport=udp> ;proxy=replace

User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)

Supported: ms-forking

Content-Length: 0

[diagram] Call-ID: [prev][next]

[4] INVITE sip:184310@10.77.31.184 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2602908000-287493779

Max-Forwards: 70

Allow: INVITE,BYE,CANCEL,ACK,INFO,PRACK,COMET,OPTIONS,SUBSCRIBE,NOTIFY,REFER,REGISTER,UPDATE

Supported: ms-forking,timer,replaces

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From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 To: <sip:184310@10.77.31.184>
 Call-ID: 2602880000-287493776
 CSeq: 2 INVITE
 Min-SE: 1800
 Session-Expires: 1800
 Contact: <sip:(null)@9.9.9.23:5060;transport=udp> ;proxy=replace
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Content-Type: application/sdp
 Content-Length: 816

v=0
 o=PolyHD2 179283009 0 IN IP4 9.9.9.23
 s=-
 c=IN IP4 9.9.9.23
 b=AS:1472
 t=0 0
 m=audio 49196 RTP/AVP 115 102 9 15 0 8 18 119
 a=rtpmap:115 G7221/32000
 a=fmtp:115 bitrate=48000
 a=rtpmap:102 G7221/16000
 a=fmtp:102 bitrate=32000
 a=rtpmap:9 G722/8000
 a=rtpmap:15 G728/8000
 a=rtpmap:0 PCMU/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:18 G729/8000
 a=fmtp:18 annexb=no
 a=rtpmap:119 telephone-event/8000
 a=fmtp:119 0-15
 a=sendrecv
 m=video 49198 RTP/AVP 109 96 34 31
 b=TIAS:1472000
 a=rtpmap:109 H264/90000
 a=fmtp:109 profile-level-id=42800d; max-mbps=108000; max-fs=3600; max-br=1600; sar=13
 a=rtpmap:96 H263-1998/90000
 a=fmtp:96 CIF4=2;CIF=1;QCIF=1;SQCIF=1
 a=rtpmap:34 H263/90000
 a=fmtp:34 CIF4=2;CIF=1;QCIF=1;SQCIF=1
 a=rtpmap:31 H261/90000
 a=fmtp:31 CIF=1;QCIF=1
 a=sendrecv
 a=rtcp-fb:* ccm fir tmmbr

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2602908000-287493779
 From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 To: <sip:184310@10.77.31.184>
 Date: Thu, 18 Nov 2010 14:06:58 GMT
 Call-ID: 2602880000-287493776
 CSeq: 2 INVITE
 Allow-Events: presence
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[6] INVITE sip:184310@9.9.9.210:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK64105985dc
 From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
 To: <sip:184310@9.9.9.210>
 Date: Thu, 18 Nov 2010 14:06:58 GMT
 Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Cisco-Guid: 0435548800-0000065536-0000000025-3089059082
 Session-Expires: 1800
 P-Asserted-Identity: <sip:10.77.31.184>
 Remote-Party-ID: <sip:10.77.31.184>;party=calling;screen=yes;privacy=off
 Contact: <sip:@10.77.31.184:5060>;video;audio ;proxy=replace
 Max-Forwards: 69
 Content-Length: 0

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Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK64105985dc;received=10.77.31.184
 Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
 CSeq: 101 INVITE
 From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
 To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
 Server: TANDBERG/73 (F8.2 PAL)
 Content-Length: 0

[diagram] Call-ID: **[prev]****[next]****[8] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2602908000-287493779
 From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 To: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 Date: Thu, 18 Nov 2010 14:06:58 GMT
 Call-ID: 2602880000-287493776
 CSeq: 2 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 P-Asserted-Identity: <sip:184310@10.77.31.184>
 Remote-Party-ID: <sip:184310@10.77.31.184>;party=called;screen=yes;privacy=off
 Contact: <sip:184310@10.77.31.184:5060>
 Content-Length: 0

[diagram] Call-ID: **[prev]****[next]****[9] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK64105985dc;received=10.77.31.184
 Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
 CSeq: 101 INVITE
 Contact: <sip:184310@9.9.9.210:5060>
 From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
 To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 Server: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Require: timer
 Session-Expires: 1800; refresher=uas
 Min-SE: 1800
 Content-Type: application/sdp
 Content-Length: 1509

v=0
 o=tandberg 1 2 IN IP4 9.9.9.210
 s=-
 c=IN IP4 9.9.9.210
 b=CT:1920
 t=0 0
 m=audio 47778 RTP/AVP 100 101 102 103 104 105 9 15 8 0 106
 b=TIAS:64000
 a=rtpmap:100 MP4A-LATM/90000
 a=fmtp:100 profile-level-id=25;object=23;bitrate=128000
 a=rtpmap:101 MP4A-LATM/90000
 a=fmtp:101 profile-level-id=25;object=23;bitrate=64000
 a=rtpmap:102 MP4A-LATM/90000
 a=fmtp:102 profile-level-id=25;object=23;bitrate=56000
 a=rtpmap:103 MP4A-LATM/90000
 a=fmtp:103 profile-level-id=25;object=23;bitrate=48000
 a=rtpmap:104 G7221/16000
 a=fmtp:104 bitrate=32000
 a=rtpmap:105 G7221/16000
 a=fmtp:105 bitrate=24000
 a=rtpmap:9 G722/8000
 a=rtpmap:15 G728/8000
 a=rtpmap:8 PCMA/8000
 a=rtpmap:0 PCMU/8000
 a=rtpmap:106 telephone-event/8000
 a=fmtp:106 0-15
 a=sendrecv
 m=video 47780 RTP/AVP 97 98 99 34 31
 c=IN IP4 9.9.9.210
 b=TIAS:1920000
 a=rtpmap:97 H264-RCD0/90000
 a=fmtp:97 profile-level-id=008016;max-mbps=42000;max-fs=3600;max-smbps=323500
 a=rtpmap:98 H264/90000
 a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
 a=rtpmap:99 H263-1998/90000
 a=fmtp:99

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```

custom=1280,800,0;custom=1280,768,0;custom=1280,720,3;custom=1024,768,4;custom=1024,576,2;custom=800,600,3;c
if4=2;custom=720,480,2;custom=640,480,2;custom=512,288,1;cif=1;custom=352,240,1;qcif=1;sqcif=1;maxbr=19200
a=rtmpmap:34 H263/90000
a=fmtp:34 cif4=2;cif=1;qcif=1;sqcif=1;maxbr=19200
a=rtmpmap:31 H261/90000
a=fmtp:31 cif=1;qcif=1;maxbr=19200
a=rtcp-fb:* nack pli
a=sendrecv
a=content:main
a=label:11
a=answer:full

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[10] ACK sip:184310@9.9.9.210:5060 SIP/2.0

```

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK653f5a388c
From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
Date: Thu, 18 Nov 2010 14:06:58 GMT
Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 390

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.184
s=SIP Call
c=IN IP4 9.9.9.23
t=0 0
m=audio 49196 RTP/AVP 9 119
a=rtmpmap:9 G722/8000
a=ptime:20
a=rtmpmap:119 telephone-event/8000
a=fmtp:119 0-15
m=video 49198 RTP/AVP 109
b=TIAS:320000
a=rtmpmap:109 H264/90000
a=fmtp:109 profile-level-id=42800D;max-mbps=108000;max-fs=3600;max-cpb=64;max-br=1600
a=rtcp-fb:* ccm fir tmmbr

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[11] SIP/2.0 183 Session Progress

```

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2602908000-287493779
From: <sip:9.9.9.23>;epid=82080408B83CCH;tag=plcm_2602880000-287493778
To: <sip:184310@10.77.31.184>;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
Date: Thu, 18 Nov 2010 14:06:58 GMT
Call-ID: 2602880000-287493776
CSeq: 2 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation
P-Asserted-Identity: <sip:184310@10.77.31.184>
Remote-Party-ID: <sip:184310@10.77.31.184>;party=called;screen=yes;privacy=off
Contact: <sip:184310@10.77.31.184:5060>
Content-Type: application/sdp
Content-Length: 390

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.184
s=SIP Call
c=IN IP4 9.9.9.210
t=0 0
m=audio 47778 RTP/AVP 9 106
b=TIAS:64000
a=rtmpmap:9 G722/8000
a=ptime:20
a=rtmpmap:106 telephone-event/8000
a=fmtp:106 0-15
m=video 47780 RTP/AVP 98
b=TIAS:320000
a=rtmpmap:98 H264/90000
a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
a=rtcp-fb:* nack pli

```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

```

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2602908000-287493779
From: <sip:9.9.9.23>;epid=82080408B83CCH;tag=plcm_2602880000-287493778

```

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To: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 Date: Thu, 18 Nov 2010 14:06:58 GMT
 Call-ID: 2602880000-287493776
 CSeq: 2 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:184310@10.77.31.184>
 Remote-Party-ID: <sip:184310@10.77.31.184>;party=called;screen=yes;privacy=off
 Contact: <sip:184310@10.77.31.184:5060>
 Content-Type: application/sdp
 Content-Length: 390

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.184
 s=SIP Call
 c=IN IP4 9.9.9.210
 t=0 0
 m=audio 47778 RTP/AVP 9 106
 b=TIAS:64000
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:106 telephone-event/8000
 a=fmtp:106 0-15
 m=video 47780 RTP/AVP 98
 b=TIAS:320000
 a=rtpmap:98 H264/90000
 a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
 a=rtcp-fb:* nack pli

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[13] ACK sip:184310@10.77.31.184:5060 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2610013000-287493780
 Max-Forwards: 70
 From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 To: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 Call-ID: 2602880000-287493776
 CSeq: 2 ACK
 Contact: <sip:(null)@9.9.9.23:5060;transport=udp> ;proxy=replace
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Supported: ms-forking
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[14] INFO sip:184310@10.77.31.184:5060 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2610331000-287493781
 Max-Forwards: 70
 Allow: INVITE, BYE, CANCEL, ACK, INFO, PRACK, COMET, OPTIONS, SUBSCRIBE, NOTIFY, REFER, REGISTER, UPDATE
 Supported: ms-forking, replaces
 From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 To: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 Call-ID: 2602880000-287493776
 CSeq: 3 INFO
 Contact: <sip:(null)@9.9.9.23:5060;transport=udp> ;proxy=replace
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Content-Type: application/media_control+xml
 Content-Length: 177

```
<?xml version="1.0" encoding="utf-8" ?>
<media_control>
<vc_primitive>
<to_encoder>
<picture_fast_update>
</picture_fast_update>
</to_encoder>
</vc_primitive>
</media_control>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[15] SIP/2.0 200 OK

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2610331000-287493781
 From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 To: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 Date: Thu, 18 Nov 2010 14:07:05 GMT
 Call-ID: 2602880000-287493776
 CSeq: 3 INFO

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Contact: <sip:184310@10.77.31.184:5060>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] INFO sip:184310@9.9.9.210:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6648879df1
From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
Date: Thu, 18 Nov 2010 14:06:58 GMT
Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
User-Agent: Cisco-CUCM8.5
Max-Forwards: 70
CSeq: 102 INFO
Contact: <sip:10.77.31.184:5060>
Content-Type: application/media_control+xml
Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6648879df1;received=10.77.31.184
Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
CSeq: 102 INFO
From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
Server: TANDBERG/73 (F8.2 PAL)
Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] INFO sip:184310@10.77.31.184:5060 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2610743000-287493782
Max-Forwards: 70
Allow: INVITE, BYE, CANCEL, ACK, INFO, PRACK, COMET, OPTIONS, SUBSCRIBE, NOTIFY, REFER, REGISTER, UPDATE
Supported: ms-forking, replaces
From: <sip:9.9.9.23>;epid=82080408B83CCH;tag=plcm_2602880000-287493778
To: <sip:184310@10.77.31.184>;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
Call-ID: 2602880000-287493776
CSeq: 4 INFO
Contact: <sip:(null)@9.9.9.23:5060;transport=udp>;proxy=replace
User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
Content-Type: application/media_control+xml
Content-Length: 177

```
<?xml version="1.0" encoding="utf-8" ?>
<media_control>
<vc_primitive>
  <to_encoder>
    <picture_fast_update>
  </picture_fast_update>
  </to_encoder>
</vc_primitive>
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] SIP/2.0 200 OK

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2610743000-287493782
From: <sip:9.9.9.23>;epid=82080408B83CCH;tag=plcm_2602880000-287493778
To: <sip:184310@10.77.31.184>;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
Date: Thu, 18 Nov 2010 14:07:06 GMT
Call-ID: 2602880000-287493776
CSeq: 4 INFO
Contact: <sip:184310@10.77.31.184:5060>
Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] INFO sip:184310@9.9.9.210:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6740c4358
From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615

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To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
 Date: Thu, 18 Nov 2010 14:06:58 GMT
 Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 103 INFO
 Contact: <sip:10.77.31.184:5060>
 Content-Type: application/media_control+xml
 Content-Length: 190

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
 <media_control>

<vc_primitive>
 <to_encoder>
 <picture_fast_update/>
 </to_encoder>
 </vc_primitive>

</media_control>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6740c4358;received=10.77.31.184
 Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
 CSeq: 103 INFO
 From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
 To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
 Allow: INVITE,ACK,CANCEL,BYE,UPDATE,INFO,OPTIONS,REFER,NOTIFY
 Server: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[22] INFO sip:184310@10.77.31.184:5060 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2610803000-287493783
 Max-Forwards: 70
 Allow: INVITE,BYE,CANCEL,ACK,INFO,PRACK,COMET,OPTIONS,SUBSCRIBE,NOTIFY,REFER,REGISTER,UPDATE
 Supported: ms-forking,replaces
 From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 To: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 Call-ID: 2602880000-287493776
 CSeq: 5 INFO
 Contact: <sip:(null)@9.9.9.23:5060;transport=udp> ;proxy=replace
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Content-Type: application/media_control+xml
 Content-Length: 177

<?xml version="1.0" encoding="utf-8" ?>
 <media_control>
 <vc_primitive>
 <to_encoder>
 <picture_fast_update>
 </picture_fast_update>
 </to_encoder>
 </vc_primitive>
 </media_control>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[23] SIP/2.0 200 OK

Via: SIP/2.0/UDP 9.9.9.23:5060;branch=z9hG4bK2610803000-287493783
 From: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 To: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 Date: Thu, 18 Nov 2010 14:07:06 GMT
 Call-ID: 2602880000-287493776
 CSeq: 5 INFO
 Contact: <sip:184310@10.77.31.184:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[24] INFO sip:184310@9.9.9.210:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK684422d6e8
 From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
 To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
 Date: Thu, 18 Nov 2010 14:06:58 GMT
 Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 104 INFO
 Contact: <sip:10.77.31.184:5060>

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Content-Type: application/media_control+xml
Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[25] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK684422d6e8;received=10.77.31.184
Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184

CSeq: 104 INFO

From: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615

To: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41

Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY

Server: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[26] INFO sip:10.77.31.184:5060 SIP/2.0

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK1df4ae77fa2bdab1028f2148efe1ac81.1;rport

Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184

CSeq: 501 INFO

Contact: <sip:184310@9.9.9.210:5060;transport=tcp>

From: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41

To: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615

Max-Forwards: 70

Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY

User-Agent: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Content-Type: application/media_control+xml

Content-Length: 168

```
<?xml version="1.0" encoding="utf-
8"?><media_control><vc_primitive><to_encoder><picture_fast_update></picture_fast_update></to_encoder></vc_pr
imitive></media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[27] SIP/2.0 200 OK

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK1df4ae77fa2bdab1028f2148efe1ac81.1;rport

From: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41

To: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615

Date: Thu, 18 Nov 2010 14:07:08 GMT

Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184

CSeq: 501 INFO

Contact: <sip:10.77.31.184:5060>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[28] INFO sip:(null)@9.9.9.23:5060;transport=udp SIP/2.0

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6942527d60

From: <sip:184310@10.77.31.184>;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614

To: <sip:9.9.9.23>;epid=82080408B83CCH;tag=plcm_2602880000-287493778

Date: Thu, 18 Nov 2010 14:07:06 GMT

Call-ID: 2602880000-287493776

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

CSeq: 101 INFO

Contact: <sip:184310@10.77.31.184:5060>

Content-Type: application/media_control+xml

Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[29] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6942527d60
 From: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 To: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 Call-ID: 2602880000-287493776
 CSeq: 101 INFO
 Contact: <sip:(null)@9.9.9.23:5060;transport=udp> ;proxy=replace
 Allow: INVITE, BYE, CANCEL, ACK, INFO, PRACK, COMET, OPTIONS, SUBSCRIBE, NOTIFY, REFER, REGISTER, UPDATE
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Supported: ms-forking
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[30] INFO sip:10.77.31.184:5060 SIP/2.0**

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK09a34bdd395a31ed220bec6fbfe977da.1;rport
 Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
 CSeq: 502 INFO
 Contact: <sip:184310@9.9.9.210:5060;transport=tcp>
 From: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
 To: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
 Max-Forwards: 70
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 User-Agent: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Type: application/media_control+xml
 Content-Length: 168

```
<?xml version="1.0" encoding="utf-8"?><media_control><vc_primitive><to_encoder><picture_fast_update></picture_fast_update></to_encoder></vc_primitive></media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[31] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK09a34bdd395a31ed220bec6fbfe977da.1;rport
 From: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41
 To: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615
 Date: Thu, 18 Nov 2010 14:07:08 GMT
 Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184
 CSeq: 502 INFO
 Contact: <sip:10.77.31.184:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[32] INFO sip:(null)@9.9.9.23:5060;transport=udp SIP/2.0**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6a69c57ffc
 From: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 To: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 Date: Thu, 18 Nov 2010 14:07:06 GMT
 Call-ID: 2602880000-287493776
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 102 INFO
 Contact: <sip:184310@10.77.31.184:5060>
 Content-Type: application/media_control+xml
 Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[33] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6a69c57ffc
 From: <sip:184310@10.77.31.184> ;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614
 To: <sip:9.9.9.23> ;epid=82080408B83CCH;tag=plcm_2602880000-287493778
 Call-ID: 2602880000-287493776
 CSeq: 102 INFO
 Contact: <sip:(null)@9.9.9.23:5060;transport=udp> ;proxy=replace
 Allow: INVITE, BYE, CANCEL, ACK, INFO, PRACK, COMET, OPTIONS, SUBSCRIBE, NOTIFY, REFER, REGISTER, UPDATE
 User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)
 Supported: ms-forking

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[34] BYE sip:10.77.31.184:5060 SIP/2.0**

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK272801ecd10f070d4510b4e55889c67b.1;rport

Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184

CSeq: 503 BYE

Contact: <sip:184310@9.9.9.210:5060;transport=tcp>

From: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41

To: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615

Max-Forwards: 70

Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY

User-Agent: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[35] BYE sip:(null)@9.9.9.23:5060;transport=udp SIP/2.0**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6b5dc3767

From: <sip:184310@10.77.31.184>;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614

To: <sip:9.9.9.23>;epid=82080408B83CCH;tag=plcm_2602880000-287493778

Date: Thu, 18 Nov 2010 14:07:06 GMT

Call-ID: 2602880000-287493776

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

CSeq: 103 BYE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[36] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK272801ecd10f070d4510b4e55889c67b.1;rport

From: <sip:184310@9.9.9.210>;tag=d335716c3c5e3b41

To: <sip:10.77.31.184>;tag=290~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514615

Date: Thu, 18 Nov 2010 14:07:42 GMT

Call-ID: 19f5f280-ce513302-f-b81f4d0a@10.77.31.184

CSeq: 503 BYE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[37] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK6b5dc3767

From: <sip:184310@10.77.31.184>;tag=289~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514614

To: <sip:9.9.9.23>;epid=82080408B83CCH;tag=plcm_2602880000-287493778

Call-ID: 2602880000-287493776

CSeq: 103 BYE

Contact: <sip:(null)@9.9.9.23:5060;transport=udp>;proxy=replace

Allow: INVITE, BYE, CANCEL, ACK, INFO, PRACK, COMET, OPTIONS, SUBSCRIBE, NOTIFY, REFER, REGISTER, UPDATE

User-Agent: Polycom HDX 4000 HD (Release - 2.5.0.5-3548)

Supported: ms-forking

Content-Length: 0

CISCO CONFIDENTIAL**32.3 Basic Call from Tandberg HD to Tandberg HD**

Title: Basic Call from Tandberg HD to Tandberg HD

Description:

The following call flow illustrates the SIP messaging that takes place between Cisco Unified CM via for a call from from Tandberg (SIP 184310) to Tandberg (SIP 184077) Tandberg (SIP 184310) sends the first Invite to CUCM

Configuration:

Node = Unified CM1, IP = 10.77.31.184

Phone = A, Line = 184077, IP = 9.9.9.27, Model = Tandberg (SIP)

Phone = B, Line = 184310, IP = 9.9.9.210, Model = Tandberg (SIP)

Scenario:

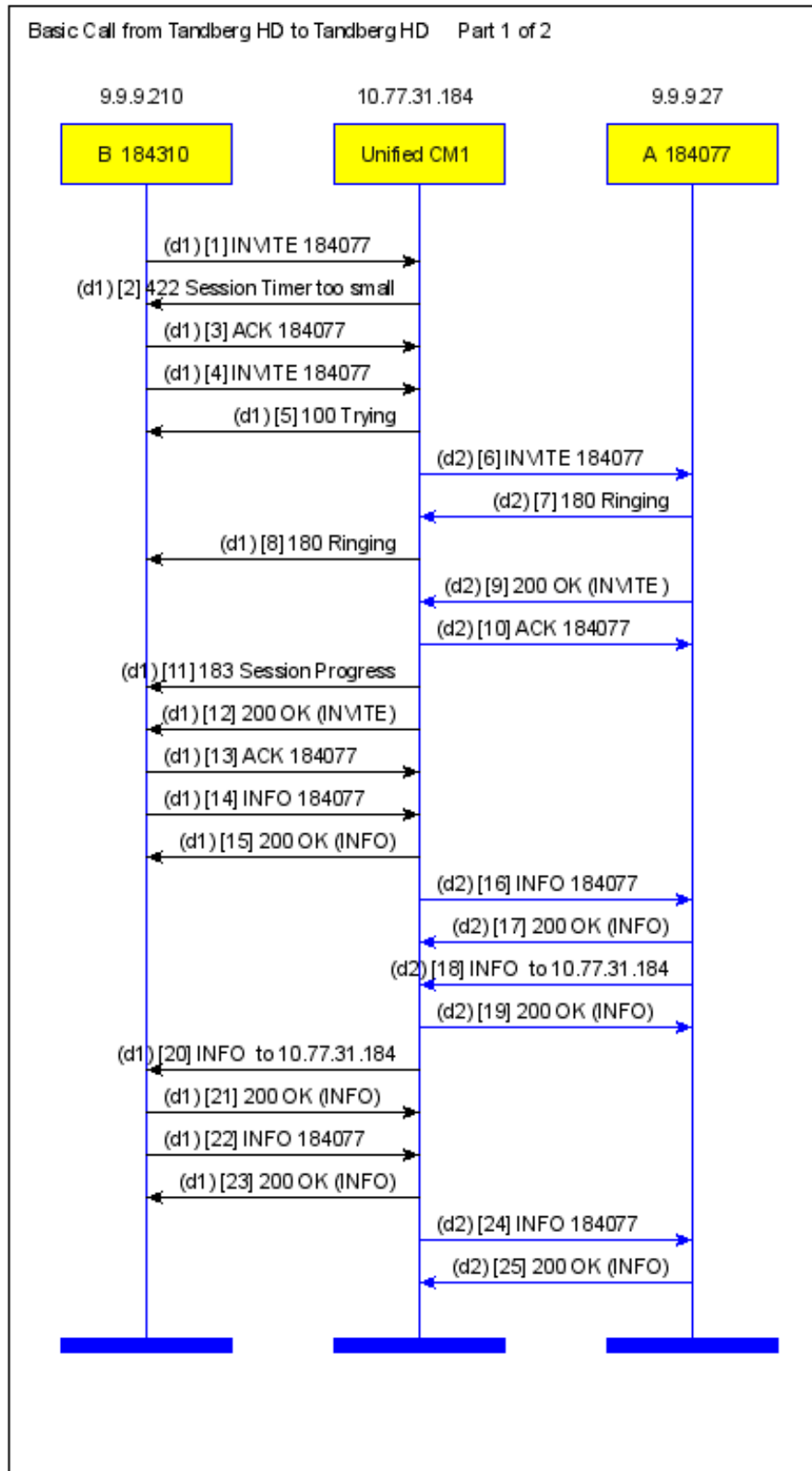
Phone A calls Phone B

Phone B Answers

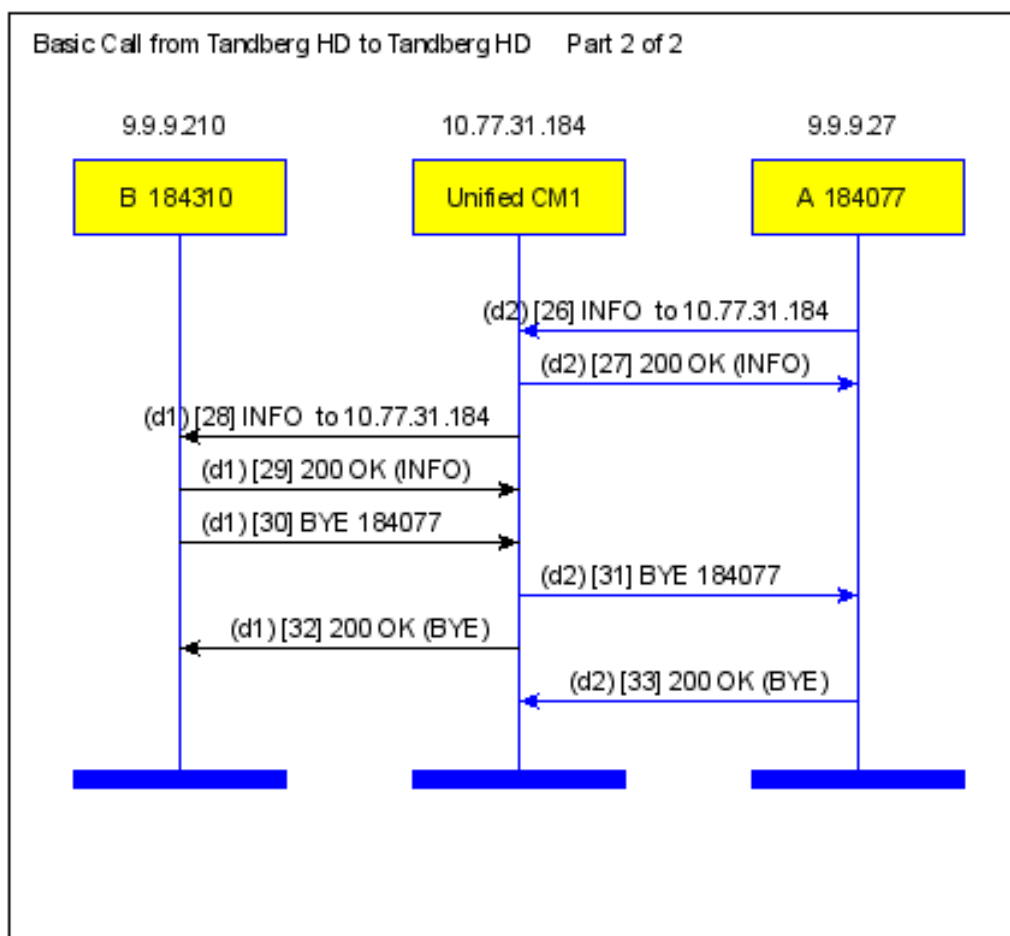
Both remain in the call for about 30 sec and the call is ended.

End of Scenario

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CISCO CONFIDENTIAL[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[1] INVITE sip:184077@10.77.31.184 SIP/2.0**

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bKf5b9d460289b0485a37e08d50f554514.1;rport

Call-ID: 906ae960299eee8d@9.9.9.210

CSeq: 100 INVITE

Contact: <sip:9.9.9.210:5060;transport=tcp>

From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462

To: <sip:184077@10.77.31.184>

Max-Forwards: 70

Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY

User-Agent: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Session-Expires: 500

Content-Type: application/sdp

Content-Length: 1504

v=0

o=tandberg 1 1 IN IP4 9.9.9.210

s=-

c=IN IP4 9.9.9.210

b=CT:768

t=0 0

m=audio 47808 RTP/AVP 100 101 102 103 104 105 9 15 8 0 106

b=TIAS:64000

a=rtpmap:100 MP4A-LATM/90000

a=fmtp:100 profile-level-id=25;object=23;bitrate=128000

a=rtpmap:101 MP4A-LATM/90000

a=fmtp:101 profile-level-id=25;object=23;bitrate=64000

a=rtpmap:102 MP4A-LATM/90000

a=fmtp:102 profile-level-id=25;object=23;bitrate=56000

a=rtpmap:103 MP4A-LATM/90000

a=fmtp:103 profile-level-id=25;object=23;bitrate=48000

a=rtpmap:104 G7221/16000

a=fmtp:104 bitrate=32000

a=rtpmap:105 G7221/16000

a=fmtp:105 bitrate=24000

a=rtpmap:9 G722/8000

a=rtpmap:15 G728/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:0 PCMU/8000

a=rtpmap:106 telephone-event/8000

a=fmtp:106 0-15

a=sendrecv

m=video 47810 RTP/AVP 97 98 99 34 31

c=IN IP4 9.9.9.210

b=TIAS:768000

a=rtpmap:97 H264-RCD0/90000

a=fmtp:97 profile-level-id=008016;max-mbps=42000;max-fs=3600;max-smbps=323500

a=rtpmap:98 H264/90000

a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500

a=rtpmap:99 H263-1998/90000

a=fmtp:99

custom=1280,800,0;custom=1280,768,0;custom=1280,720,3;custom=1024,768,4;custom=1024,576,2;custom=800,600,3;c

if4=2;custom=720,480,2;custom=640,480,2;custom=512,288,1;cif=1;custom=352,240,1;qcif=1;sqcif=1;maxbr=7680

a=rtpmap:34 H263/90000

a=fmtp:34 cif4=2;cif=1;qcif=1;sqcif=1;maxbr=7680

a=rtpmap:31 H261/90000

a=fmtp:31 cif=1;qcif=1;maxbr=7680

a=rtcp-fb:* nack pli

a=sendrecv

a=content:main

a=label:11

a=answer:full

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[2] SIP/2.0 422 Session Timer too small**

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bKf5b9d460289b0485a37e08d50f554514.1;rport

From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462

To: <sip:184077@10.77.31.184>;tag=438440321

Date: Thu, 18 Nov 2010 14:26:42 GMT

Call-ID: 906ae960299eee8d@9.9.9.210

CSeq: 100 INVITE

Allow-Events: presence

Min-SE: 1800

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[3] ACK sip:184077@10.77.31.184 SIP/2.0**

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bKf5b9d460289b0485a37e08d50f554514.1;rport

Call-ID: 906ae960299eee8d@9.9.9.210

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CSeq: 100 ACK
 From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 To: <sip:184077@10.77.31.184>;tag=438440321
 User-Agent: TANDBERG/73 (F8.2 PAL)
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[4] INVITE sip:184077@10.77.31.184 SIP/2.0

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK87586d53a35f4d3faf98009651569fb4.1;rport

Call-ID: 906ae960299eee8d@9.9.9.210

CSeq: 101 INVITE

Contact: <sip:9.9.9.210:5060;transport=tcp>

From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462

To: <sip:184077@10.77.31.184>

Max-Forwards: 70

Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY

User-Agent: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Session-Expires: 1800

Min-SE: 1800

Content-Type: application/sdp

Content-Length: 1504

v=0

o=tandberg 1 1 IN IP4 9.9.9.210

s=-

c=IN IP4 9.9.9.210

b=CT:768

t=0 0

m=audio 47808 RTP/AVP 100 101 102 103 104 105 9 15 8 0 106

b=TIAS:64000

a=rtpmap:100 MP4A-LATM/90000

a=fmtp:100 profile-level-id=25;object=23;bitrate=128000

a=rtpmap:101 MP4A-LATM/90000

a=fmtp:101 profile-level-id=25;object=23;bitrate=64000

a=rtpmap:102 MP4A-LATM/90000

a=fmtp:102 profile-level-id=25;object=23;bitrate=56000

a=rtpmap:103 MP4A-LATM/90000

a=fmtp:103 profile-level-id=25;object=23;bitrate=48000

a=rtpmap:104 G7221/16000

a=fmtp:104 bitrate=32000

a=rtpmap:105 G7221/16000

a=fmtp:105 bitrate=24000

a=rtpmap:9 G722/8000

a=rtpmap:15 G728/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:0 PCMU/8000

a=rtpmap:106 telephone-event/8000

a=fmtp:106 0-15

a=sendrecv

m=video 47810 RTP/AVP 97 98 99 34 31

c=IN IP4 9.9.9.210

b=TIAS:768000

a=rtpmap:97 H264-RCDO/90000

a=fmtp:97 profile-level-id=008016;max-mbps=42000;max-fs=3600;max-smbps=323500

a=rtpmap:98 H264/90000

a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500

a=rtpmap:99 H263-1998/90000

a=fmtp:99

custom=1280,800,0;custom=1280,768,0;custom=1280,720,3;custom=1024,768,4;custom=1024,576,2;custom=800,600,3;c

if4=2;custom=720,480,2;custom=640,480,2;custom=512,288,1;cif=1;custom=352,240,1;qcif=1;sqcif=1;maxbr=7680

a=rtpmap:34 H263/90000

a=fmtp:34 cif4=2;cif=1;qcif=1;sqcif=1;maxbr=7680

a=rtpmap:31 H261/90000

a=fmtp:31 cif=1;qcif=1;maxbr=7680

a=rtcp-fb:* nack pli

a=sendrecv

a=content:main

a=label:11

a=answer:full

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[5] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK87586d53a35f4d3faf98009651569fb4.1;rport

From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462

To: <sip:184077@10.77.31.184>

Date: Thu, 18 Nov 2010 14:26:42 GMT

Call-ID: 906ae960299eee8d@9.9.9.210

CSeq: 101 INVITE

Allow-Events: presence

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Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[6] INVITE sip:184077@9.9.9.27:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK764d1f76ab

From: "TandbergHD" <sip:10.77.31.184>;tag=377~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627

To: <sip:184077@9.9.9.27>

Date: Thu, 18 Nov 2010 14:26:42 GMT

Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM8.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101 INVITE

Expires: 180

Allow-Events: presence

Supported: X-cisco-srtp-fallback

Supported: Geolocation

Cisco-Guid: 3685614208-0000065536-0000000032-3089059082

Session-Expires: 1800

P-Asserted-Identity: "TandbergHD" <sip:10.77.31.184>

Remote-Party-ID: "TandbergHD" <sip:10.77.31.184>;party=calling;screen=yes;privacy=off

Contact: <sip:@10.77.31.184:5060>;video;audio

Max-Forwards: 69

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[7] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK764d1f76ab;received=10.77.31.184

Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184

CSeq: 101 INVITE

From: "TandbergHD" <sip:10.77.31.184>;tag=377~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627

To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e

Server: TANDBERG/73 (F8.2 PAL)

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[8] SIP/2.0 180 Ringing**

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK87586d53a35f4d3faf98009651569fb4.1;rport

From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462

To: <sip:184077@10.77.31.184>;tag=376~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626

Date: Thu, 18 Nov 2010 14:26:42 GMT

Call-ID: 906ae960299eee8d@9.9.9.210

CSeq: 101 INVITE

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Allow-Events: presence

Supported: X-cisco-srtp-fallback

Supported: Geolocation

P-Asserted-Identity: <sip:184077@10.77.31.184>

Remote-Party-ID: <sip:184077@10.77.31.184>;party=called;screen=yes;privacy=off

Contact: <sip:184077@10.77.31.184:5060;transport=tcpx>

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#) [\[next\]](#)**[9] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK764d1f76ab;received=10.77.31.184

Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184

CSeq: 101 INVITE

Contact: <sip:184077@9.9.9.27:5060>

From: "TandbergHD" <sip:10.77.31.184>;tag=377~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627

To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e

Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY

Server: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Require: timer

Session-Expires: 1800; refresher=uas

Min-SE: 1800

Content-Type: application/sdp

Content-Length: 1506

v=0

o=tandberg 1 2 IN IP4 9.9.9.27

s=-

c=IN IP4 9.9.9.27

b=CT:1920

t=0 0

m=audio 48716 RTP/AVP 100 101 102 103 104 105 9 15 8 0 106

b=TIAS:64000

a=rtpmap:100 MP4A-LATM/90000

a=fmtp:100 profile-level-id=25;object=23;bitrate=128000

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```

a=rtptime:101 MP4A-LATM/90000
a=fmtp:101 profile-level-id=25;object=23;bitrate=64000
a=rtptime:102 MP4A-LATM/90000
a=fmtp:102 profile-level-id=25;object=23;bitrate=56000
a=rtptime:103 MP4A-LATM/90000
a=fmtp:103 profile-level-id=25;object=23;bitrate=48000
a=rtptime:104 G7221/16000
a=fmtp:104 bitrate=32000
a=rtptime:105 G7221/16000
a=fmtp:105 bitrate=24000
a=rtptime:9 G722/8000
a=rtptime:15 G728/8000
a=rtptime:8 PCMA/8000
a=rtptime:0 PCMU/8000
a=rtptime:106 telephone-event/8000
a=fmtp:106 0-15
a=sendrecv
m=video 48718 RTP/AVP 97 98 99 34 31
c=IN IP4 9.9.9.27
b=TIAS:1920000
a=rtptime:97 H264-RCD0/90000
a=fmtp:97 profile-level-id=008016;max-mbps=42000;max-fs=3600;max-smbps=323500
a=rtptime:98 H264/90000
a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
a=rtptime:99 H263-1998/90000
a=fmtp:99
custom=1280,800,0;custom=1280,768,0;custom=1280,720,3;custom=1024,768,4;custom=1024,576,2;custom=800,600,3;
cif4=2;custom=720,480,2;custom=640,480,2;custom=512,288,1;cif=1;custom=352,240,1;qcif=1;sqcif=1;maxbr=19200
a=rtptime:34 H263/90000
a=fmtp:34 cif4=2;cif=1;qcif=1;sqcif=1;maxbr=19200
a=rtptime:31 H261/90000
a=fmtp:31 cif=1;qcif=1;maxbr=19200
a=rtcp-fb:* nack pli
a=sendrecv
a=content:main
a=label:11
a=answer:full

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[10] ACK sip:184077@9.9.9.27:5060 SIP/2.0

```

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK776d4757f7
From: "TandbergHD" <sip:10.77.31.184>;tag=377-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
Date: Thu, 18 Nov 2010 14:26:42 GMT
Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 390

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.184
s=SIP Call
c=IN IP4 9.9.9.210
t=0 0
m=audio 47808 RTP/AVP 9 106
b=TIAS:64000
a=rtptime:9 G722/8000
a=ptime:20
a=rtptime:106 telephone-event/8000
a=fmtp:106 0-15
m=video 47810 RTP/AVP 98
b=TIAS:320000
a=rtptime:98 H264/90000
a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
a=rtcp-fb:* nack pli

```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[11] SIP/2.0 183 Session Progress

```

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK87586d53a35f4d3faf98009651569fb4.1;rport
From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
To: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
Date: Thu, 18 Nov 2010 14:26:42 GMT
Call-ID: 906ae960299eee8d@9.9.9.210
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Supported: X-cisco-srtp-fallback
Supported: Geolocation

```

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P-Asserted-Identity: <sip:184077@10.77.31.184>
 Remote-Party-ID: <sip:184077@10.77.31.184>;party=called;screen=yes;privacy=off
 Contact: <sip:184077@10.77.31.184:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 389

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.184
 s=SIP Call
 c=IN IP4 9.9.9.27
 t=0 0
 m=audio 48716 RTP/AVP 9 106
 b=TIAS:64000
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:106 telephone-event/8000
 a=fmtp:106 0-15
 m=video 48718 RTP/AVP 98
 b=TIAS:320000
 a=rtpmap:98 H264/90000
 a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
 a=rtcp-fb:* nack pli

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[12] SIP/2.0 200 OK

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK87586d53a35f4d3faf98009651569fb4.1;rport
 From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 To: <sip:184077@10.77.31.184>;tag=376~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 Date: Thu, 18 Nov 2010 14:26:42 GMT
 Call-ID: 906ae960299eee8d@9.9.9.210
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Session-Expires: 1800;refresher=uas
 Require: timer
 P-Asserted-Identity: <sip:184077@10.77.31.184>
 Remote-Party-ID: <sip:184077@10.77.31.184>;party=called;screen=yes;privacy=off
 Contact: <sip:184077@10.77.31.184:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 389

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.184
 s=SIP Call
 c=IN IP4 9.9.9.27
 t=0 0
 m=audio 48716 RTP/AVP 9 106
 b=TIAS:64000
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:106 telephone-event/8000
 a=fmtp:106 0-15
 m=video 48718 RTP/AVP 98
 b=TIAS:320000
 a=rtpmap:98 H264/90000
 a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
 a=rtcp-fb:* nack pli

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[13] ACK sip:184077@10.77.31.184:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bKe358314736ef74483cd6128c9e89805d.1;rport
 Call-ID: 906ae960299eee8d@9.9.9.210
 CSeq: 101 ACK
 From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 To: <sip:184077@10.77.31.184>;tag=376~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 Max-Forwards: 70
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 User-Agent: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[14] INFO sip:184077@10.77.31.184:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bKe01720452452034264f554ca5413b1ad.1;rport
 Call-ID: 906ae960299eee8d@9.9.9.210
 CSeq: 102 INFO
 Contact: <sip:9.9.9.210:5060;transport=tcp>

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From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 To: <sip:184077@10.77.31.184>;tag=376~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 Max-Forwards: 70
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 User-Agent: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Type: application/media_control+xml
 Content-Length: 168

```
<?xml version="1.0" encoding="utf-8"?><media_control><vc_primitive><to_encoder><picture_fast_update></picture_fast_update></to_encoder></vc_primitive></media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[15] SIP/2.0 200 OK

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bKe01720452452034264f554ca5413b1ad.1;rport
 From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 To: <sip:184077@10.77.31.184>;tag=376~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 Date: Thu, 18 Nov 2010 14:26:47 GMT
 Call-ID: 906ae960299eee8d@9.9.9.210
 CSeq: 102 INFO
 Contact: <sip:184077@10.77.31.184:5060>;transport=tcpx
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[16] INFO sip:184077@9.9.9.27:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK7851f81483
 From: "TandbergHD" <sip:10.77.31.184>;tag=377~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
 To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
 Date: Thu, 18 Nov 2010 14:26:42 GMT
 Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 102 INFO
 Contact: <sip:10.77.31.184:5060>
 Remote-Party-ID: "TandbergHD" <sip:10.77.31.184>;party=calling;screen=yes;privacy=off
 Content-Type: application/media_control+xml
 Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>

  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>

</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[17] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK7851f81483;received=10.77.31.184
 Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
 CSeq: 102 INFO
 From: "TandbergHD" <sip:10.77.31.184>;tag=377~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
 To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 Server: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] INFO sip:10.77.31.184:5060 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.27:5060;branch=z9hG4bK684b556644734950222353b13a863896.1;rport
 Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
 CSeq: 501 INFO
 Contact: <sip:184077@9.9.9.27:5060>
 From: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
 To: "TandbergHD" <sip:10.77.31.184>;tag=377~41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
 Max-Forwards: 70
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 User-Agent: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Type: application/media_control+xml
 Content-Length: 168

```
<?xml version="1.0" encoding="utf-8"?><media_control><vc_primitive><to_encoder><picture_fast_update></picture_fast_update></to_encoder></vc_primitive></media_control>
```

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[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[19] SIP/2.0 200 OK

Via: SIP/2.0/UDP 9.9.9.27:5060;branch=z9hG4bK684b556644734950222353b13a863896.1;rport
 From: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
 To: "TandbergHD" <sip:10.77.31.184>;tag=377-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
 Date: Thu, 18 Nov 2010 14:26:47 GMT
 Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
 CSeq: 501 INFO
 Contact: <sip:10.77.31.184:5060>
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[20] INFO sip:9.9.9.210:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.77.31.184:5060;branch=z9hG4bK7955471637
 From: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 To: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 Date: Thu, 18 Nov 2010 14:26:47 GMT
 Call-ID: 906ae960299eee8d@9.9.9.210
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 101 INFO
 Contact: <sip:184077@10.77.31.184:5060;transport=tcp>
 Content-Type: application/media_control+xml
 Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[21] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.184:5060;branch=z9hG4bK7955471637;received=10.77.31.184
 Call-ID: 906ae960299eee8d@9.9.9.210
 CSeq: 101 INFO
 From: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 To: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 Allow: INVITE,ACK,CANCEL,BYE,UPDATE,INFO,OPTIONS,REFER,NOTIFY
 Server: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[22] INFO sip:184077@10.77.31.184:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bKcb9c8037a578436cb92f75fdae4a5dd6.1;rport
 Call-ID: 906ae960299eee8d@9.9.9.210
 CSeq: 103 INFO
 Contact: <sip:9.9.9.210:5060;transport=tcp>
 From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 To: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 Max-Forwards: 70
 Allow: INVITE,ACK,CANCEL,BYE,UPDATE,INFO,OPTIONS,REFER,NOTIFY
 User-Agent: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Type: application/media_control+xml
 Content-Length: 168

```
<?xml version="1.0" encoding="utf-
8"?><media_control><vc_primitive><to_encoder><picture_fast_update></picture_fast_update></to_encoder></vc_pr
imitive></media_control>
```

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[23] SIP/2.0 200 OK

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bKcb9c8037a578436cb92f75fdae4a5dd6.1;rport
 From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 To: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 Date: Thu, 18 Nov 2010 14:26:47 GMT
 Call-ID: 906ae960299eee8d@9.9.9.210
 CSeq: 103 INFO
 Contact: <sip:184077@10.77.31.184:5060;transport=tcp>
 Content-Length: 0

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[diagram] Call-ID: [prev][next]

[24] INFO sip:184077@9.9.9.27:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK7a4cb91c08
 From: "TandbergHD" <sip:10.77.31.184>;tag=377-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
 To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
 Date: Thu, 18 Nov 2010 14:26:47 GMT
 Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 103 INFO
 Contact: <sip:10.77.31.184:5060>
 Remote-Party-ID: "TandbergHD" <sip:10.77.31.184>;party=calling;screen=yes;privacy=off
 Content-Type: application/media_control+xml
 Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[diagram] Call-ID: [prev][next]

[25] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK7a4cb91c08;received=10.77.31.184
 Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
 CSeq: 103 INFO
 From: "TandbergHD" <sip:10.77.31.184>;tag=377-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
 To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 Server: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Length: 0

[diagram] Call-ID: [prev][next]

[26] INFO sip:10.77.31.184:5060 SIP/2.0

Via: SIP/2.0/UDP 9.9.9.27:5060;branch=z9hG4bK2ac609c1b106e2ecfbd8a58f2b5c9fba.1;rport
 Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
 CSeq: 502 INFO
 Contact: <sip:184077@9.9.9.27:5060>
 From: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
 To: "TandbergHD" <sip:10.77.31.184>;tag=377-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
 Max-Forwards: 70
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 User-Agent: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Type: application/media_control+xml
 Content-Length: 168

```
<?xml version="1.0" encoding="utf-
8"?><media_control><vc_primitive><to_encoder><picture_fast_update></picture_fast_update></to_encoder></vc_pr
imitive></media_control>
```

[diagram] Call-ID: [prev][next]

[27] SIP/2.0 200 OK

Via: SIP/2.0/UDP 9.9.9.27:5060;branch=z9hG4bK2ac609c1b106e2ecfbd8a58f2b5c9fba.1;rport
 From: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e
 To: "TandbergHD" <sip:10.77.31.184>;tag=377-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627
 Date: Thu, 18 Nov 2010 14:26:47 GMT
 Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184
 CSeq: 502 INFO
 Contact: <sip:10.77.31.184:5060>
 Content-Length: 0

[diagram] Call-ID: [prev][next]

[28] INFO sip:9.9.9.210:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.77.31.184:5060;branch=z9hG4bK7b21741d82
 From: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626
 To: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462
 Date: Thu, 18 Nov 2010 14:26:47 GMT
 Call-ID: 906ae960299eee8d@9.9.9.210
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 102 INFO
 Contact: <sip:184077@10.77.31.184:5060;transport=tcp>
 Content-Type: application/media_control+xml

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Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.184:5060;branch=z9hG4bK7b21741d82;received=10.77.31.184

Call-ID: 906ae960299eee8d@9.9.9.210

CSeq: 102 INFO

From: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626

To: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462

Allow: INVITE,ACK,CANCEL,BYE,UPDATE,INFO,OPTIONS,REFER,NOTIFY

Server: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] BYE sip:184077@10.77.31.184:5060;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK1139303765347484cca4d1f9a524ab21.1;rport

Call-ID: 906ae960299eee8d@9.9.9.210

CSeq: 104 BYE

Contact: <sip:9.9.9.210:5060;transport=tcp>

From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462

To: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626

Max-Forwards: 70

Allow: INVITE,ACK,CANCEL,BYE,UPDATE,INFO,OPTIONS,REFER,NOTIFY

User-Agent: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[31] BYE sip:184077@9.9.9.27:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK7c8703be2

From: "TandbergHD" <sip:10.77.31.184>;tag=377-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627

To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e

Date: Thu, 18 Nov 2010 14:26:47 GMT

Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184

User-Agent: Cisco-CUCM8.5

Max-Forwards: 70

P-Asserted-Identity: "TandbergHD" <sip:10.77.31.184>

CSeq: 104 BYE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[32] SIP/2.0 200 OK

Via: SIP/2.0/TCP 9.9.9.210:5060;branch=z9hG4bK1139303765347484cca4d1f9a524ab21.1;rport

From: "TandbergHD" <sip:10.77.31.184>;tag=e548275f2e457462

To: <sip:184077@10.77.31.184>;tag=376-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514626

Date: Thu, 18 Nov 2010 14:27:19 GMT

Call-ID: 906ae960299eee8d@9.9.9.210

CSeq: 104 BYE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[33] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.184:5060;branch=z9hG4bK7c8703be2;received=10.77.31.184

Call-ID: dbae0280-ce5137a2-13-b81f4d0a@10.77.31.184

CSeq: 104 BYE

From: "TandbergHD" <sip:10.77.31.184>;tag=377-41d7bece-d448-4e9e-b03b-e4dab905cf14-26514627

To: <sip:184077@9.9.9.27>;tag=a273aea7859bf66e

Allow: INVITE,ACK,CANCEL,BYE,UPDATE,INFO,OPTIONS,REFER,NOTIFY

Server: TANDBERG/73 (F8.2 PAL)

Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1

Content-Length: 0

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32.4 Basic Call from Polycom RT(SIP) to Tandberg (SIP)

Title: Basic Call from Polycom RT(SIP) to Tandberg (SIP)

Description:

The following call flow illustrates the SIP messaging that takes place between Cisco Unified CM via for a call from RT (SIP) to Tandberg (SIP)
RT(SIP) sends the first Invite to CUCM

Configuration:

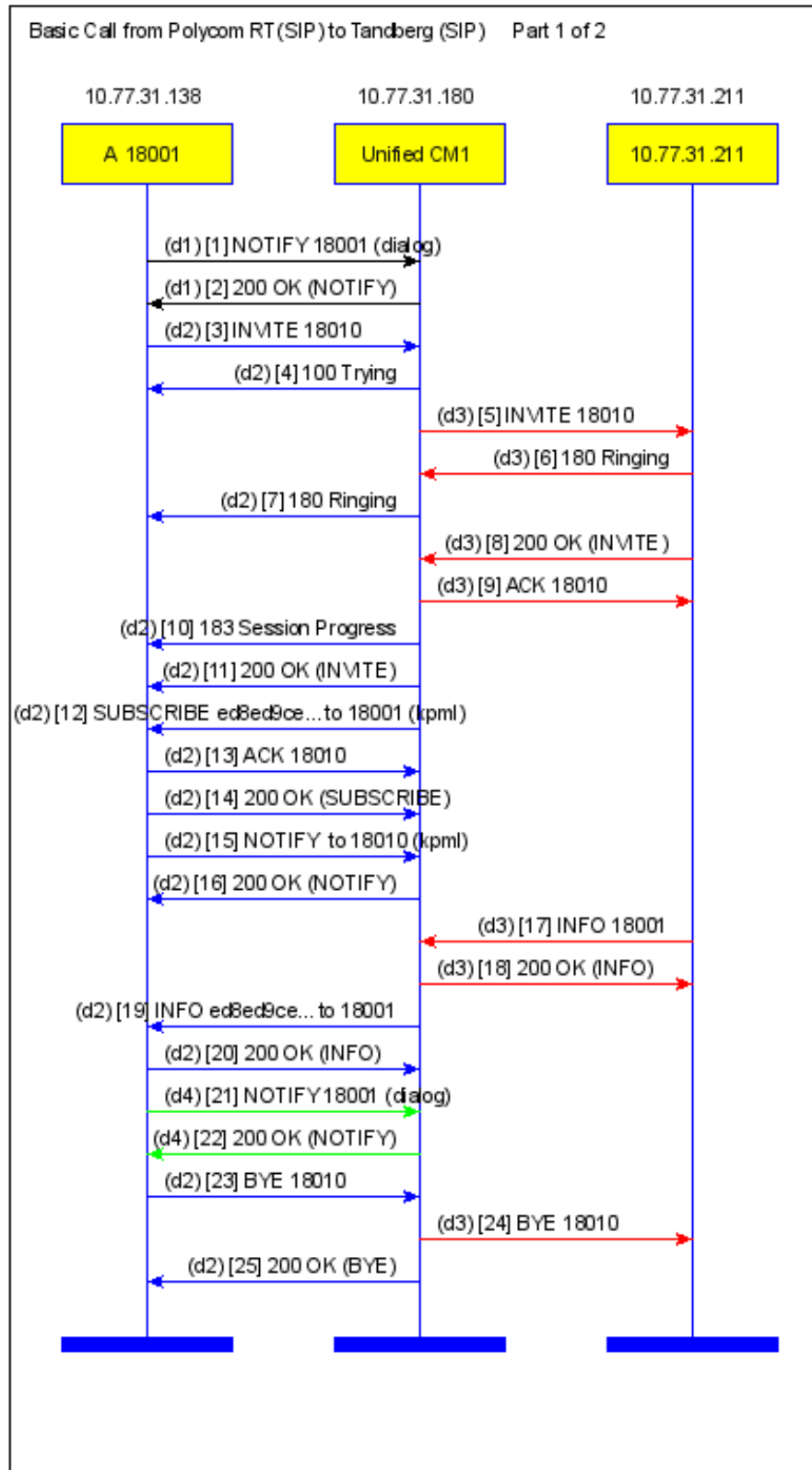
Node = Unified CM1, IP = 10.77.31.180
Phone = A, Line = 18001, IP = 10.77.31.138, Model = 9971 (SIP)
Phone = B, Line = 18010, IP = 10.77.31.212, Model = Tandberg (SIP)

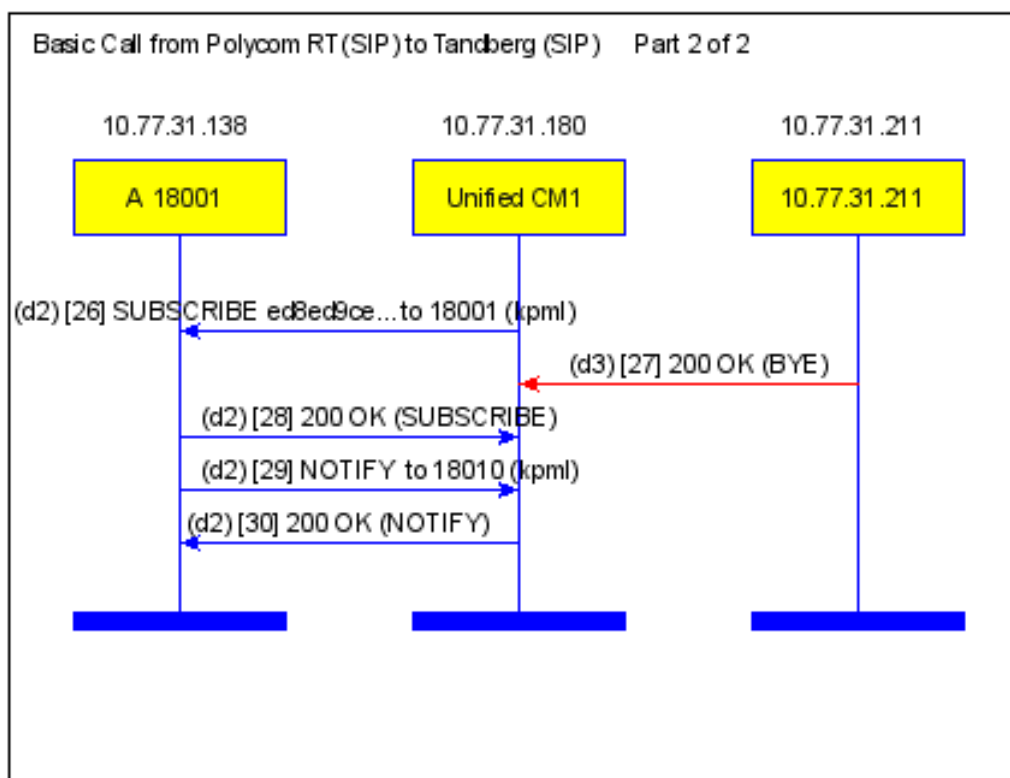
Scenario:

Phone A calls Tandberg Phone B
Phone B Answers
Both remain in the call for about 30 sec.
Phone A ends the call

End of Scenario

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[diagram] Call-ID:[prev][next]

[1] NOTIFY sip:18001@10.77.31.180 SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK6486562a

To: <sip:18001@10.77.31.180>

From: <sip:18001@10.77.31.180>;tag=1c17d34190b7008d02b06a2d-5d971e55

Call-ID: 586abfed-610f5bb6@10.77.31.138

Date: Wed, 15 Dec 2010 14:48:08 GMT

CSeq: 27 NOTIFY

Event: dialog

Subscription-State: active

Max-Forwards: 70

Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 355

Content-Type: application/dialog-info+xml

Content-Disposition: session;handling=required

<?xml version="1.0" encoding="UTF-8" ?>

<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="2" state="partial" entity="sip:18001@10.77.31.138">

<dialog id="18" call-id="1c17d341-90b70015-6923d63e-10eada82@10.77.31.138" local-tag="1c17d34190b7008c5ac4d8b7-57f5da14"><state>trying</state></dialog>

</dialog-info>

[diagram] Call-ID:[prev][next]

[2] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK6486562a

From: <sip:18001@10.77.31.180>;tag=1c17d34190b7008d02b06a2d-5d971e55

To: <sip:18001@10.77.31.180>;tag=1473855485

Date: Wed, 15 Dec 2010 14:48:08 GMT

Call-ID: 586abfed-610f5bb6@10.77.31.138

CSeq: 27 NOTIFY

Content-Length: 0

[diagram] Call-ID:[prev][next]

[3] INVITE sip:18010@10.77.31.180 SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK27b808c6

From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14

To: <sip:18010@10.77.31.180>

Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138

Max-Forwards: 70

Date: Wed, 15 Dec 2010 14:48:08 GMT

CSeq: 101 INVITE

User-Agent: Cisco-CP9971/9.1.1

Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=tcp>

Expires: 180

Accept: application/sdp

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE, INFO

Remote-Party-ID: "18001" <sip:18001@10.77.31.180>;party=calling;id-type=subscriber;privacy=off;screen=yes

Supported: replaces, join, sdp-anat, norefersub, extended-refer, X-cisco-callinfo, X-cisco-serviceuri, X-cisco-escapecodes, X-cisco-service-control, X-cisco-srtp-fallback, X-cisco-monrec, X-cisco-config, X-cisco-sis-5.1.0, X-cisco-xsi-8.0.1

Allow-Events: kpml, dialog

Content-Length: 700

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 22299 0 IN IP4 10.77.31.138

s=SIP Call

t=0 0

m=audio 27632 RTP/AVP 0 8 18 102 9 116 124 101

c=IN IP4 10.77.31.138

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=fmtp:18 annexb=no

a=rtpmap:102 L16/16000

a=rtpmap:9 G722/8000

a=rtpmap:116 iLBC/8000

a=fmtp:116 mode=20

a=rtpmap:124 ISAC/16000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

m=video 26422 RTP/AVP 126 97

c=IN IP4 10.77.31.138

b=TIAS:1000000

a=rtpmap:126 H264/90000

a=fmtp:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1

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a=rtpmap:97 H264/90000
 a=fmtp:97 profile-level-id=42801E;packetization-mode=0;level-asymmetry-allowed=1
 a=sendrecv

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[4] SIP/2.0 100 Trying

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK27b808c6
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 To: <sip:18010@10.77.31.180>
 Date: Wed, 15 Dec 2010 14:48:08 GMT
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 CSeq: 101 INVITE
 Allow-Events: presence
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[5] INVITE sip:18010@10.77.31.211:5060 SIP/2.0

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bKa128c923a
 From: <sip:18001@10.77.31.180>;tag=44~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091524
 To: <sip:18010@10.77.31.211>
 Date: Wed, 15 Dec 2010 14:48:08 GMT
 Call-ID: 53594980-d081d528-4-b41f4d0a@10.77.31.180
 Supported: timer,resource-priority,replaces
 Min-SE: 1800
 User-Agent: Cisco-CUCM8.5
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 CSeq: 101 INVITE
 Expires: 180
 Allow-Events: presence, kpml
 Supported: X-cisco-srtp-fallback
 Supported: Geolocation
 Call-Info: <sip:10.77.31.180:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
 Cisco-Guid: 1398360448-0000065536-0000000002-3021950218
 Session-Expires: 1800
 P-Asserted-Identity: <sip:18001@10.77.31.180>
 Remote-Party-ID: <sip:18001@10.77.31.180>;party=calling;screen=yes;privacy=off
 Contact: <sip:18001@10.77.31.180:5060>;video;audio
 Max-Forwards: 69
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[6] SIP/2.0 180 Ringing

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bKa128c923a;received=10.77.31.180
 Call-ID: 53594980-d081d528-4-b41f4d0a@10.77.31.180
 CSeq: 101 INVITE
 From: <sip:18001@10.77.31.180>;tag=44~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091524
 To: <sip:18010@10.77.31.211>;tag=a21be1a2964951b6
 Server: TANDBERG/73 (F8.2 PAL)
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[7] SIP/2.0 180 Ringing

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK27b808c6
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 Date: Wed, 15 Dec 2010 14:48:08 GMT
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-2002; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:18010@10.77.31.180>;party=called;screen=yes;privacy=off
 Contact: <sip:18010@10.77.31.180:5060>;transport=tcp
 Content-Length: 0

[[diagram](#)] Call-ID: [[prev](#)][[next](#)]

[8] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bKa128c923a;received=10.77.31.180
 Call-ID: 53594980-d081d528-4-b41f4d0a@10.77.31.180
 CSeq: 101 INVITE
 Contact: <sip:18010@10.77.31.211:5060>
 From: <sip:18001@10.77.31.180>;tag=44~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091524
 To: <sip:18010@10.77.31.211>;tag=a21be1a2964951b6
 Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY
 Server: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Require: timer
 Session-Expires: 1800; refresher=uas

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Min-SE: 1800
Content-Type: application/sdp
Content-Length: 1518

v=0
o=tandberg 1 2 IN IP4 10.77.31.211
S=-
c=IN IP4 10.77.31.211
b=CT:1920
t=0 0
m=audio 48178 RTP/AVP 100 101 102 103 104 105 9 15 8 0 106
b=TIAS:64000
a=rtpmap:100 MP4A-LATM/90000
a=fmtp:100 profile-level-id=25;object=23;bitrate=128000
a=rtpmap:101 MP4A-LATM/90000
a=fmtp:101 profile-level-id=25;object=23;bitrate=64000
a=rtpmap:102 MP4A-LATM/90000
a=fmtp:102 profile-level-id=25;object=23;bitrate=56000
a=rtpmap:103 MP4A-LATM/90000
a=fmtp:103 profile-level-id=25;object=23;bitrate=48000
a=rtpmap:104 G7221/16000
a=fmtp:104 bitrate=32000
a=rtpmap:105 G7221/16000
a=fmtp:105 bitrate=24000
a=rtpmap:9 G722/8000
a=rtpmap:15 G728/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:0 PCMU/8000
a=rtpmap:106 telephone-event/8000
a=fmtp:106 0-15
a=sendrecv
m=video 48180 RTP/AVP 97 98 99 34 31
c=IN IP4 10.77.31.211
b=TIAS:1920000
a=rtpmap:97 H264-RCD0/90000
a=fmtp:97 profile-level-id=008016;max-mbps=42000;max-fs=3600;max-smbps=323500
a=rtpmap:98 H264/90000
a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
a=rtpmap:99 H263-1998/90000
a=fmtp:99
custom=1280,800,0;custom=1280,768,0;custom=1280,720,3;custom=1024,768,4;custom=1024,576,2;custom=800,600,3;c
if4=2;custom=720,480,2;custom=640,480,2;custom=512,288,1;cif=1;custom=352,240,1;qcif=1;sqcif=1;maxbr=19200
a=rtpmap:34 H263/90000
a=fmtp:34 cif4=2;cif=1;qcif=1;sqcif=1;maxbr=19200
a=rtpmap:31 H261/90000
a=fmtp:31 cif=1;qcif=1;maxbr=19200
a=rtcp-fb:* nack pli
a=sendrecv
a=content:main
a=label:11
a=answer:full

[diagram] Call-ID: [prev][next]
[9] ACK sip:18010@10.77.31.211:5060 SIP/2.0
Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bKb5841d38f
From: <sip:18001@10.77.31.180>;tag=44~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091524
To: <sip:18010@10.77.31.211>;tag=a21be1a2964951b6
Date: Wed, 15 Dec 2010 14:48:08 GMT
Call-ID: 53594980-d081d528-4-b41f4d0a@10.77.31.180
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 369

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.180
s=SIP Call
c=IN IP4 10.77.31.138
b=CT:320
t=0 0
m=audio 27632 RTP/AVP 9 101
a=rtpmap:9 G722/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
m=video 26422 RTP/AVP 97
b=TIAS:320000
a=rtpmap:97 H264/90000
a=fmtp:97 profile-level-id=42801E;packetization-mode=0;level-asymmetry-allowed=1

```

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[diagram] Call-ID: [prev][next]

[10] SIP/2.0 183 Session Progress

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK27b808c6
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 Date: Wed, 15 Dec 2010 14:48:08 GMT
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
 gci= 1-2002; call-instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:18010@10.77.31.180>;party=called;screen=yes;privacy=off
 Contact: <sip:18010@10.77.31.180:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 393

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.180
 s=SIP Call
 c=IN IP4 10.77.31.211
 t=0 0
 m=audio 48178 RTP/AVP 9 106
 b=TIAS:64000
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:106 telephone-event/8000
 a=fmtp:106 0-15
 m=video 48180 RTP/AVP 98
 b=TIAS:320000
 a=rtpmap:98 H264/90000
 a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
 a=rtcp-fb:* nack pli

[diagram] Call-ID: [prev][next]

[11] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK27b808c6
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 Date: Wed, 15 Dec 2010 14:48:08 GMT
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 CSeq: 101 INVITE
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
 Allow-Events: presence
 Supported: replaces
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; gci= 1-2002; call-
 instance= 1
 Send-Info: conference, x-cisco-conference
 Remote-Party-ID: <sip:18010@10.77.31.180>;party=called;screen=yes;privacy=off
 Contact: <sip:18010@10.77.31.180:5060;transport=tcp>
 Content-Type: application/sdp
 Content-Length: 393

v=0
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 10.77.31.180
 s=SIP Call
 c=IN IP4 10.77.31.211
 t=0 0
 m=audio 48178 RTP/AVP 9 106
 b=TIAS:64000
 a=rtpmap:9 G722/8000
 a=ptime:20
 a=rtpmap:106 telephone-event/8000
 a=fmtp:106 0-15
 m=video 48180 RTP/AVP 98
 b=TIAS:320000
 a=rtpmap:98 H264/90000
 a=fmtp:98 profile-level-id=428016;max-mbps=35000;max-fs=3600;max-smbps=323500
 a=rtcp-fb:* nack pli

[diagram] Call-ID: [prev][next]

[12] SUBSCRIBE sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bKc1c4dccdf
 From: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 CSeq: 101 SUBSCRIBE
 Date: Wed, 15 Dec 2010 14:48:12 GMT

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User-Agent: Cisco-CUCM8.5

Event: kpml

Expires: 7200

Contact: <sip:10.77.31.180:5060;transport=tcp>

Accept: application/kpml-response+xml

Max-Forwards: 70

Content-Type: application/kpml-request+xml

Content-Length: 370

<?xml version="1.0" encoding="UTF-8" ?>

<kpml-request xmlns="urn:ietf:params:xml:ns:kpml-request" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:ietf:params:xml:ns:kpml-request kpml-request.xsd" version="1.0">

<pattern interdigittimer="7260000" persist="persist">

<regex tag="dtmf">[x*#ABCD]</regex>

</pattern>

</kpml-request>

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[13] ACK sip:18010@10.77.31.180:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK1c776c0a

From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14

To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523

Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138

Max-Forwards: 70

Date: Wed, 15 Dec 2010 14:48:13 GMT

CSeq: 101 ACK

User-Agent: Cisco-CP9971/9.1.1

Remote-Party-ID: "18001" <sip:18001@10.77.31.180>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[14] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bKc1c4dccdf

From: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523

To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14

Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138

Date: Wed, 15 Dec 2010 14:48:13 GMT

CSeq: 101 SUBSCRIBE

Server: Cisco-CP9971/9.1.1

Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>

Expires: 7200

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[15] NOTIFY sip:10.77.31.180:5060 SIP/2.0**

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK017fda72

To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523

From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14

Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138

Date: Wed, 15 Dec 2010 14:48:13 GMT

CSeq: 102 NOTIFY

Event: kpml

Subscription-State: active; expires=7200

Max-Forwards: 70

Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>

Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[16] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK017fda72

From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14

To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523

Date: Wed, 15 Dec 2010 14:48:12 GMT

Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138

CSeq: 102 NOTIFY

Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[17] INFO sip:18001@10.77.31.180:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.77.31.211:5060;branch=z9hG4bKbba297fa1b57e6dc37d8f5fc4728c456.1;rport

Call-ID: 53594980-d081d528-4-b41f4d0a@10.77.31.180

CSeq: 501 INFO

Contact: <sip:18010@10.77.31.211:5060>

From: <sip:18010@10.77.31.211>;tag=a21be1a2964951b6

To: <sip:18001@10.77.31.180>;tag=44~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091524

Max-Forwards: 70

Allow: INVITE, ACK, CANCEL, BYE, UPDATE, INFO, OPTIONS, REFER, NOTIFY

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User-Agent: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Type: application/media_control+xml
 Content-Length: 168

```
<?xml version="1.0" encoding="utf-8"?><media_control><vc_primitive><to_encoder><picture_fast_update></picture_fast_update></to_encoder></vc_primitive></media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[18] SIP/2.0 200 OK

Via: SIP/2.0/UDP 10.77.31.211:5060;branch=z9hG4bKbba297fa1b57e6dc37d8f5fc4728c456.1;rport
 From: <sip:18010@10.77.31.211>;tag=a21be1a2964951b6
 To: <sip:18001@10.77.31.180>;tag=44~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091524
 Date: Wed, 15 Dec 2010 14:48:12 GMT
 Call-ID: 53594980-d081d528-4-b41f4d0a@10.77.31.180
 CSeq: 501 INFO
 Contact: <sip:18001@10.77.31.180:5060>
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[19] INFO sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=tcp SIP/2.0

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bKd74b073a8
 From: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 Date: Wed, 15 Dec 2010 14:48:12 GMT
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 CSeq: 102 INFO
 Contact: <sip:18010@10.77.31.180:5060;transport=tcp>
 Content-Type: application/media_control+xml
 Content-Length: 190

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<media_control>
```

```
  <vc_primitive>
    <to_encoder>
      <picture_fast_update/>
    </to_encoder>
  </vc_primitive>
```

```
</media_control>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[20] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bKd74b073a8
 From: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 Date: Wed, 15 Dec 2010 14:48:13 GMT
 CSeq: 102 INFO
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[21] NOTIFY sip:18001@10.77.31.180 SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK7eccae45
 To: <sip:18001@10.77.31.180>
 From: <sip:18001@10.77.31.180>;tag=1c17d34190b7008e7ad0c26e-65cf0a6b
 Call-ID: 397644c6-56ca4e46@10.77.31.138
 Date: Wed, 15 Dec 2010 14:48:57 GMT
 CSeq: 28 NOTIFY
 Event: dialog
 Subscription-State: active
 Max-Forwards: 70
 Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 359
 Content-Type: application/dialog-info+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8" ?>
<dialog-info xmlns:call="urn:x-cisco:parmams:xml:ns:dialog-info:dialog:callinfo-dialog" version="3"
state="partial" entity="sip:18001@10.77.31.138">
  <dialog id="18" call-id="1c17d341-90b70015-6923d63e-10eada82@10.77.31.138" local-
tag="1c17d34190b7008c5ac4d8b7-57f5da14"><state>terminated</state></dialog>
</dialog-info>
```


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Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK7eccae45
 From: <sip:18001@10.77.31.180>;tag=1c17d34190b7008e7ad0c26e-65cf0a6b
 To: <sip:18001@10.77.31.180>;tag=376414952
 Date: Wed, 15 Dec 2010 14:48:57 GMT
 Call-ID: 397644c6-56ca4e46@10.77.31.138
 CSeq: 28 NOTIFY
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[23] BYE sip:18010@10.77.31.180:5060;transport=tcp SIP/2.0**

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK713a4405
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 Max-Forwards: 70
 Date: Wed, 15 Dec 2010 14:48:57 GMT
 CSeq: 103 BYE
 User-Agent: Cisco-CP9971/9.1.1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[24] BYE sip:18010@10.77.31.211:5060 SIP/2.0**

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bKe4b35fea6
 From: <sip:18001@10.77.31.180>;tag=44~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091524
 To: <sip:18010@10.77.31.211>;tag=a21be1a2964951b6
 Date: Wed, 15 Dec 2010 14:48:12 GMT
 Call-ID: 53594980-d081d528-4-b41f4d0a@10.77.31.180
 User-Agent: Cisco-CUCM8.5
 Max-Forwards: 70
 P-Asserted-Identity: <sip:18001@10.77.31.180>
 CSeq: 102 BYE
 Reason: Q.850;cause=16
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[25] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK713a4405
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 Date: Wed, 15 Dec 2010 14:48:57 GMT
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 CSeq: 103 BYE
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[26] SUBSCRIBE sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP SIP/2.0**

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bKf7aa5660b
 From: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 CSeq: 103 SUBSCRIBE
 Date: Wed, 15 Dec 2010 14:48:57 GMT
 User-Agent: Cisco-CUCM8.5
 Event: kpml
 Expires: 0
 Contact: <sip:10.77.31.180:5060;transport=tcp>
 Max-Forwards: 70
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[27] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 10.77.31.180:5060;branch=z9hG4bKe4b35fea6;received=10.77.31.180
 Call-ID: 53594980-d081d528-4-b41f4d0a@10.77.31.180
 CSeq: 102 BYE
 From: <sip:18001@10.77.31.180>;tag=44~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091524
 To: <sip:18010@10.77.31.211>;tag=a21be1a2964951b6
 Allow: INVITE,ACK,CANCEL,BYE,UPDATE,INFO,OPTIONS,REFER,NOTIFY
 Server: TANDBERG/73 (F8.2 PAL)
 Supported: replaces,100rel,timer,com.tandberg.sdp.extensions.v1
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)**[28] SIP/2.0 200 OK**

Via: SIP/2.0/TCP 10.77.31.180:5060;branch=z9hG4bKf7aa5660b
 From: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 To: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 Date: Wed, 15 Dec 2010 14:48:58 GMT

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CSeq: 103 SUBSCRIBE
 Server: Cisco-CP9971/9.1.1
 Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>
 Expires: 0
 Content-Length: 0

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[29] NOTIFY sip:10.77.31.180:5060 SIP/2.0

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK1c018107
 To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 Date: Wed, 15 Dec 2010 14:48:58 GMT
 CSeq: 104 NOTIFY
 Event: kpml
 Subscription-State: terminated; reason=timeout
 Max-Forwards: 70
 Contact: <sip:ed8ed9ce-7db1-4bcc-a032-98dd961c0c98@10.77.31.138:49345;transport=TCP>
 Allow: ACK, BYE, CANCEL, INVITE, NOTIFY, OPTIONS, REFER, REGISTER, UPDATE, SUBSCRIBE
 Content-Length: 214
 Content-Type: application/kpml-response+xml
 Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<kpml-response xmlns="urn:ietf:params:xml:ns:kpml-response" version="1.0" code="487" text="Subscription Exp"
suppressed="false" forced_flush="false" digits="" tag="dtmf"/>
```

[\[diagram\]](#) Call-ID: [\[prev\]](#)[\[next\]](#)

[30] SIP/2.0 200 OK

Via: SIP/2.0/TCP 10.77.31.138:49345;branch=z9hG4bK1c018107
 From: "18001" <sip:18001@10.77.31.180>;tag=1c17d34190b7008c5ac4d8b7-57f5da14
 To: <sip:18010@10.77.31.180>;tag=43~f1d3ceea-cafe-41d0-b55b-4101e9853eed-19091523
 Date: Wed, 15 Dec 2010 14:48:57 GMT
 Call-ID: 1c17d341-90b70015-6923d63e-10eada82@10.77.31.138
 CSeq: 104 NOTIFY
 Content-Length: 0