



**Session Initiation Protocol (SIP)  
Line Messaging Guide (Standard) for  
Cisco Unified Communications Manager  
Release 5.1(1)**

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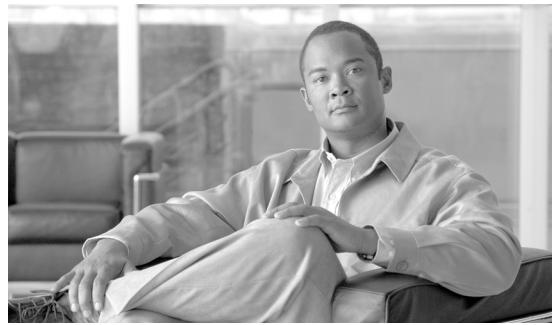
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## Preface

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This document describes the implementation of the Session Initiation Protocol (SIP) for line side devices in Cisco Unified Communications Manager Release 5.1(1).

The preface covers these topics:

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

## Audience

This document provides information for developers, vendors, and customers who are developing applications or products that integrate with Cisco Unified Communications Manager 5.1(1) using SIP messaging.

## Organization

This document consists of the following two chapters.

Chapter	Description
<a href="#">Chapter 1, "SIP Standard Line Interface for Release 5.1(1)"</a>	Provides an overview of SIP line messages and standards compliance.
<a href="#">Chapter 2, "SIP Basic Line Call Flows for Release 5.1(1)"</a>	Comprises a listing of all Release 5.1(1) SIP line messages, including sequence charts and examples of call flows.

## New and Changed Information

The SIP line call flows in Chapter 2 are new for this release.

# Conventions

This document uses the following conventions:

Convention	Description
<b>boldface</b> font	Commands and keywords are in <b>boldface</b> .
<i>italic</i> font	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 <b>screen</b> font.
<b>boldface screen</b> font	Information you must enter is in <b>boldface screen</b> font.
<i>italic screen</i> font	Arguments for which you supply values are in <i>italic screen</i> font.
→	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*.



## Timesaver

Means the *described action saves time*. You can save time by performing the action described in the paragraph.

# Obtaining Documentation, Obtaining 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>

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:

<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>.

If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com).

## Developer Support

The Developer Support Program provides formalized support for Cisco Systems interfaces to enable developers, customers, and partners in the Cisco Service Provider solutions Ecosystem and Cisco Partner programs to accelerate their delivery of compatible solutions.

The Developer Support Engineers are an extension of the product technology engineering teams. They have direct access to the resources necessary to provide expert support in a timely manner.

For additional information on this program, refer to the Developer Support Program Web Site at [www.cisco.com/go/developer support/](http://www.cisco.com/go/developer support/).

Developers using the *SIP Line Messaging Guide* are encouraged to join the Cisco Developer Support Program. This new program provides a consistent level of support while leveraging Cisco interfaces in development projects.



### Note

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Cisco Technical Assistance Center (TAC) support does not include SIP Developer support and is limited to Cisco installation/configuration and Cisco-developed applications. For more information about the Cisco Developer Support Program, please contact Cisco at [developer-support@cisco.com](mailto:developer-support@cisco.com).

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# CHAPTER 1

## SIP Standard Line Interface for Release 5.1(1)

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This document describes the external interface for Cisco Unified Communications Manager SIP line-side devices. It highlights SIP primitives that are supported on the line-side interface and describes call flow scenarios that can be used as a guide for technical support and future development.

The purpose of this document is to describe the Cisco Unified Communications Manager SIP line interface from an external interface point of view. Chapter 2 provides call flow examples for the standard interface.

This chapter includes the following sections:

- [Definitions/Glossary, page 1-2](#)
- [SIP Phones References, page 1-2](#)
- [New and Changed Information, page 1-3](#)
- [Standard Interface Compliance Summary, page 1-3](#)
  - [Proprietary SIP Headers and Identification Services, page 1-7](#)
  - [Supported Media Types, page 1-10](#)
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# Definitions/Glossary

Acronym/Word	Definition
BLF	Busy Lamp Field
Cseq	Call Sequence Number
CTI	Computer Telephony Integration
DNS	Domain Name Server
DTMF	Dual-Tone Multi Frequency
FECC	Far-End Camera Control
FMTCP	Format-Specific Parameters
FQDN	Fully Qualified Domain Name
KPML	Key Pad Markup Language
MTP	Media Termination Point
MWI	Message Waiting Indication
OOB	Out Of Band
OOD	Out of Dialog
PRACK	Provisional Response ACKnowledgment
RDNIS	Redirected Dialed Number Information Service
RPID	Remote Party Id
RTT	Retransmission Time
SDP	Session Description Protocol
SIP	Session Initiated Protocol
TLS	Transport Layer Security
UAC	User Agent Client
UAS	User Agent Server
URI	Uniform Resource Identifier
URN	Uniform Resource Name
VM	Voice Mail

## SIP Phones References

In this document, references to “SIP Phones” refer specifically to these Cisco Unified IP Phone models:

- Cisco Unified IP Phone 7911G
- Cisco Unified IP Phone 7941G and 7941G-GE
- Cisco Unified IP Phone 7961G and 7961G-GE
- Cisco Unified IP Phone 7970G
- Cisco Unified IP Phone 7971G-GE

References to all other Cisco Unified IP Phones using SIP line messaging identify the phone by model and protocol; for example, SIP 7960.

# New and Changed Information

This release of the Cisco Unified Communications Manager SIP Line Messaging Guide (Standard) introduces no new enhancements or fixes to the SIP line interface.

## Standard Interface Compliance Summary

This section provides details about Cisco Unified Communications Manager SIP line interface standards compliance. The “[Standard Feature Scenarios](#)” section on page 1-18 provides a feature implementation-oriented view of how the system works relative to the SIP line-side implementation. Refer to [Chapter 2, “SIP Basic Line Call Flows for Release 5.1\(1\),”](#) for detailed call flows.

Refer to the following tables for SIP line interface compliance:

- [Table 1-1](#) identifies the applicable standards and drafts.
- [Table 1-2](#) and [Table 1-3](#) provide SIP line-side compliance for SIP messages.
- [Table 1-4](#) provides SIP line-side compliance for standard SIP headers.

**Table 1-1      Applicable Standards and Drafts - Standard Interface**

<b>Id</b>	<b>Notes</b>
RFC 3261	SIP
RFC 3262	PRACK
RFC 3264	SDP offer/answer
RFC 3311	UPDATE
RFC 3515	REFER
RFC 3842	MWI Package
RFC 3891	Replaces Header
RFC 3892	Referred-by Mechanism
draft-levy-sip-diversion-08.txt	Diversion Header
draft-ietf-sip-privacy-04.txt	Remote-Party-Id Header

**Table 1-2      Compliance to SIP Requests**

<b>SIP Message</b>	<b>Unified CM Supported</b>	<b>Comments</b>
INVITE	Y	Re-INVITE also supported
ACK	Y	
OPTIONS	Y	Cisco Unified Communications Manager will respond to it if received. Cisco Unified Communications Manager does not send OPTIONS request.
INFO	Y	INFO method is used for video support.
BYE	Y	
CANCEL	Y	

**Table 1-2** Compliance to SIP Requests (continued)

SIP Message	Unified CM Supported	Comments
SUBSCRIBE	Y	Refer to Supported Event Packages section.
NOTIFY	Y	Refer to Supported Event Packages section.
REFER	Y	Inbound REFER as it applies to transfer is supported. Cisco Unified Communications Manager line side does not generate outbound REFER for transfer.  Bidirectional support of REFER for remotecc is supported.
REGISTER	Y	
PRACK	Y	Support for PRACK is configurable.
UPDATE	Y	Cisco Unified Communications Manager supports receiving and generating UPDATE.
PUBLISH	N	

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

SIP Message	Unified CM Supported	Comments
1xx Response	Y	
100 Trying	Y	
180 Ringing	Y	Early media is supported.
181 Call Forward	N	Cisco Unified Communications Manager ignores this message.
182 Queued	N	Cisco Unified Communications Manager ignores this message.
183 Progress	Y	Early media is supported.
2xx Response	Y	
200 OK	Y	
202 OK	Y	For REFER
3xx Response	Y	
300-302, 305, 380, 385	Y	Does not generate. Contacts new address in Contact header upon receiving.
4xx Response	Y	Upon receiving, initiates graceful call disconnect.
401	Y	Cisco Unified Communications Manager SIP sends out 401 (Unauthorized) if authentication and authorization is enabled. Cisco Unified Communications Manager SIP also responds to inbound 401 challenges.
403	Y	Cisco Unified Communications Manager SIP sends out 403 (Forbidden) if a SIP method is not on the Access Control List. 403 can also be returned if a method is not supported in a particular state.

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

SIP Message	Unified CM Supported	Comments
407	Y	Cisco Unified Communications Manager SIP responds to inbound 407 (Proxy Authentication Required) challenges.
5xx Response	Y	Upon receiving, a new request is sent if additional address is present. Otherwise initiates graceful disconnect.
6xx Response	Y	Not generated. Upon receiving, graceful disconnect is initiated.

**Table 1-4** *Standard SIP Header Fields*

SIP Headers	Unified CM Supported	Comments
Accept	Yes	
Accept-Encoding	No	
Accept-Language	No	
Alert-Info	Yes	Cisco Unified Communications Manager sends Alert-Info to indicate internal versus external call.
Allow	Yes	
Authentication-Info	No	
Authorization	Yes	
Call-ID	Yes	
Call-Info	Yes	
Contact	Yes	
Content-Disposition	No	Cisco Unified Communications Manager will ignore if received. Cisco Unified Communications Manager does not generate this header.
Content-Encoding	No	
Content Language	No	
Content-Length	Yes	
Content-Type	Yes	See Supported Content Types.
CSeq	Yes	
Date	Yes	
Error-Info	No	
Expires	Yes	
From	Yes	
Max-Forwards	Yes	Cisco Unified Communications Manager sets to 70 for outgoing INVITE and does not increment/decrement it.
MIME-Version	Yes	Used with REFER
Min-Expires	Yes	

**■ Standard Interface Compliance Summary****Table 1-4 Standard SIP Header Fields (continued)**

<b>SIP Headers</b>	<b>Unified CM Supported</b>	<b>Comments</b>
Organization	No	
Priority	No	
Proxy-Authenticate	Yes	Cisco Unified Communications Manager SIP supports receiving this header in 407 responses.
Proxy-Authorization	Yes	Cisco Unified Communications Manager SIP supports sending new request with this header after receiving 407 responses.
Proxy-Require	No	
Record-Route	Yes	
Reply-To	No	
Require	Yes	
Retry-After	Yes	Send it but ignore receiving it.
Route	Yes	
Server	Yes	
Subject	No	
Supported	Yes	
Timestamp	Yes	
To	Yes	
Unsupported	Yes	
User-Agent	Yes	
Via	Yes	
Warning	Yes	
WWW-Authenticate	Yes	

## Proprietary SIP Headers and Identification Services

The following table lists the proprietary header fields for the standard SIP line-side interface. Refer to the “[Remote-Party-ID Header](#)” section on page 1-7 for additional information.

**Table 1-5 Proprietary SIP Header Fields**

SIP Headers	Unified CM Supported	Comments
Diversion	Yes	Used for RDNIS information. If it is present, it is always the Original Called Party info. The receiving side of this header always assumes it is the Original Called Party info if present. In case of chained-forwarding to a VM, the message will be left to the Original Called Party.
Remote-Party-ID	Yes	Used for ID services including Connected Name & ID. Nonstandard draft but included in Standard Feature Scenarios anyway.

## Remote-Party-ID Header

This section describes the SIP Identification Services in the Cisco Unified Communications Manager for the SIP line. This includes both Line and Name Identification Services:

- Line Identification Services include Calling Line and Connected Line Directory Number.
- Name identification Services include Calling Line Name, Alerting Line Name, and Connected Line Name.

The Remote-Party-ID header is used to provide ID services. This header is specified in [draft-ietf-sip-privacy-03.txt](#).

The Cisco Unified Communications Manager provides flexible configuration options for the endpoint to provide both Alerting Line Name and/or the Connected Line Name. This section does not describe those configuration options; it only provides the details on how Cisco Unified Communications Manager sends and receives these ID services to and from the SIP endpoint. The Remote-Party-ID header contains a display name with an address specification followed by optional parameters. The display carries the name while the user part of the address carries the number.



**Note**

Although Remote-Party-ID header is nonstandard, it is implemented by a large number of vendors and is included in most of Cisco’s SIP products. Therefore, it is included in the standard section of this document even though it is effectively proprietary. Use of this header is not negotiated. It should be ignored if not understood.

[Table 1-6](#) captures support levels for various identification parameters. The following topics are covered in subsequent sections:

- [Calling Line and Name Identification Presentation, page 1-8](#)
- [Calling Line and Name Identification Restriction, page 1-8](#)
- [Connected Line and Name Identification Presentation, page 1-9](#)
- [Connected Line and Name Identification Restriction, page 1-9](#)

**Table 1-6 Identification Parameters Support**

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

## Calling Line and Name Identification Presentation

The Calling Line (Number) and Name are included in both the From header and optionally in the Remote-Party-ID headers in the initial INVITE message from the endpoint. For example, an incoming INVITE from an endpoint with directory number, 69005, and a Caller Id, “sip line”, for an outbound call will have the following Remote-Party-ID and From headers:

```
Remote-Party-ID: "sip line"
<sip:69005@10.10.10.2>;party=calling;id-type=subscriber;privacy=off;screen=yes
From: "sip line" <sip:69005@10.10.10.2>;tag=1234
```

## Calling Line and Name Identification Restriction

The SIP Line (Number) and Name restrictions are conveyed using the privacy parameter. If neither is restricted, privacy is specified as off. The other values of privacy (name, uri, and full) are detailed below with their impact on the various values in the From and Remote-Party-ID headers:

### name

Name Restrict only – When name is restricted, the display field (Calling Name) in “From” header is set to “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:

```
Remote-Party-ID: "Anonymous"
<sip:69005@10.10.10.2>;party=calling;id-type=subscriber;privacy=name;screen=yes
From: "Anonymous" <sip:69005@10.10.10.2>;tag=1234
```

**uri**

Number Restrict only – When number is restricted, the calling Line is set to “Anonymous” out in the “From” header; however, it is still included in the “Remote-Party-ID” header with privacy=uri. For example:

```
Remote-Party-ID: "sip line"
<sip:69005@10.10.10.2>;party=calling;id-type=subscriber;privacy=uri;screen=yes
From: "sip line" <sip:Anonymous@10.10.10.2>;tag=1234
```

**full**

Both Name and Number Restrict – When both name and number are restricted, the same principle applies with privacy=full.

```
Remote-Party-ID: "sip line"
<sip:69005@10.10.10.2>;party=calling;id-type=subscriber;privacy=full;screen=yes
From: "Anonymous" <sip:Anonymous@10.10.10.2>;tag=1234
```

## Connected Line and Name Identification Presentation

Connected Line/Name Identification is a supplementary service that provides the called or connected party number and name.

Cisco Unified Communications Manager uses the Remote-Party-ID header in 18x, 200, re-INVITE, and UPDATE messages to convey the connected name and number information. In this example, an endpoint placed a call to 9728135001. Cisco Unified Communications Manager determined that this number is for “Bob Jones” and sent that back to the originator in a 180 or 183.

```
Remote-Party-ID: "Bob Jones" <sip:
9728135001@10.10.10.2>;party=called;screen=yes;privacy=off
```

## Connected Line and Name Identification Restriction

Similar to Calling ID services, the RPID can restrict the connected number and/or the name independently.

**name**

Name Restrict only – When name is restricted, the connected name is still included with privacy=name. For example:

```
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=called;screen=no;privacy=name
```

**uri**

Number Restrict only – When number is restricted, the connected number is still included with privacy=uri. For example:

```
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=called;screen=no;privacy=uri
```

**full**

Both Name and Number Restrict – When both name and number are restricted, both information parameters are included with privacy=full. For example:

```
Remote-Party-ID: "Bob Jones"<9728135001@localhost; user=phone>;
party=called;screen=no;privacy=full
```

## Supported Media Types

Refer to the following tables for supported media types at the SIP line interface:

- For supported audio media types, see [Table 1-7](#).
- For supported video media types, see [Table 1-8](#).
- For supported application media types, see [Table 1-9](#).
- For supported T38fax media types, see [Table 1-10](#).

**Table 1-7      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	Support all combinations of annex A and B
RFC2833 DTMF	Telephony-event	Dynamically Assigned	Acceptable range is 96-127

**Table 1-8      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 1-9      Supported Application Media Types**

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

**Table 1-10      Supported T38fax Payload Types**

Types	Encoding Name	Payload Type
T38fax	Not applied	Not applied

## Supported Event Packages

[Table 1-11](#) provides supported event packages at the SIP line interface.

**Table 1-11      Supported Event Packages**

Event Package	Supported	Subscription or Unsolicited	Comments
message-summary	Yes	Unsolicited	Used for Message Waiting Indication notifications
kpml	Yes	Subscription	Used for digit collection and DTMF relay
dialog	Yes	Subscription	Used for hook status (offhook and onhook only) Used for shared line remote state notifications
presence	Yes	Subscription	Used for BLF speed dials Used for missed, placed, and received calls as well as other directory services
refer	Yes	Subscription	Used to carry sipfrag responses during call transfer Used to carry remotecc responses
service-control	Yes	Unsolicited	Used to send service control notifications to the endpoint

## Supported Content Types

[Table 1-12](#) provides supported content types at the SIP line interface.

**Table 1-12      Supported Content Types**

Content Type	Comments
text/plain	See message-summary and service-control packages.
message/sipfrag;version=2.0	See refer package as used for transfer.
application/pidfd+xml	See presence package.
application/dialog-info+xml	See dialog package.
application/kpml-request+xml	See kpml package.
application/kpml-response+xml	See kpml package.
application/x-cisco-remotecc-request+xml	See refer package and remotecc.
application/x-cisco-remotecc-response+xml	See refer package and remotecc.
application/x-cisco-remotecc-cm+xml	See refer package and remotecc.
application/x-cisco-servicecontrol	See service-control package.
multipart/mixed	See refer package and remotecc.

# SIP Message Fields

Cisco Unified Communications Manager SIP line supports request messages and response messages. The request messages include INVITE, ACK, OPTIONS, BYE, CANCEL, PRACK and UPDATE methods. The response message consists of the status line with various status codes (1xx, 2xx, 3xx, 4xx, 5xx and 6xx). SIP line supports all mandatory fields in the SIP standard interface.

## Request Messages

The following sections provide individual summaries for some types of SIP requests. These sections examine the dialog-initiating requests. The values used by midcall transactions can be deduced from these requests. Consult the call flows in Chapter 2, “SIP Basic Line Call Flows for Release 5.1(1),” for additional information.

The SIP Request messages detailed in this section include:

- [INVITE, page 1-12](#)
- [ACK, page 1-14](#)

## INVITE

**Table 1-13** *INVITE Message Fields*

Message Lines	Variable	Incoming (to Cisco Unified Communications Manager)	Outgoing (from Cisco Unified Communications Manager)
<b>INVITE</b> <code>sip:userpart@destIP:destPort SIP/2.0</code>	userpart	Called Party Number	Calling Party Number
	destIP	Cisco Unified Communications Manager’s IP address or FQDN	Endpoint’s IP address
	destPort	Cisco Unified Communications Manager’s SIP port	Endpoint’s SIP port
<b>Via:</b> <code>SIP/2.0/UPD ip:port;Branch=number</code>	ip	Endpoint’s IP address	Cisco Unified Communications Manager’s IP address
	port	Endpoint’s SIP port	Cisco Unified Communications Manager’s SIP port
	number	Endpoint’s branch number	Cisco Unified Communications Manager’s branch number

**Table 1-13** INVITE Message Fields (continued)

<b>Message Lines</b>	<b>Variable</b>	<b>Incoming (to Cisco Unified Communications Manager)</b>	<b>Outgoing (from Cisco Unified Communications Manager)</b>
<b>From:</b> "display" <sip:userpart@ip>;tag=from-tag	display* userpart ip from-tag	Calling Party Name Calling Party Number Cisco Unified Communications Manager's IP address or FQDN Endpoint's local tag	Calling Party Name Calling Party Number Cisco Unified Communications Manager's IP address Cisco Unified Communications Manager's local tag
<b>To:</b> <sip:userpart@destIP>	userpart destIP	Called Party Number Cisco Unified Communications Manager's IP address or FQDN	Called Party Number Endpoint's IP address
<b>Remote-Party-ID:</b> "display" <sip:userpart@ip>;params	display userpart ip params	Calling Party Name Calling Party Number Endpoint's IP address Varies per Endpoint	Calling Party Name Calling Party Number Cisco Unified Communications Manager's IP address Varies per Cisco Unified Communications Manager configuration
<b>Call-ID:</b> string	string	Endpoint-generated string	Cisco Unified Communications Manager generated string
<b>Contact:&lt;sip:userpart@ip:port &gt;</b>	userpart ip port	Calling Party Number Endpoint's IP address Endpoint's port	Calling Party Number Cisco Unified Communications Manager's IP address Cisco Unified Communications Manager's port
<b>Cseq:</b> number method	number method	sequence number SIP method	sequence number SIP method
<b>Max-Forwards:</b> number	number	Max forwards	Max forwards
<b>SDP</b> [sdp]	sdp	Endpoint's SDP	Cisco Unified Communications Manager typically uses delayed media

\*. Any display field in any SIP header can be encoded as ASCII or Unicode.

## ACK

The ACK message values will reflect the values established by the INVITE/18x/200 message sequence. Note that the ACK may contain SDP and Remote-Party-ID header.

## Response Messages



**Note** The order of the outgoing and incoming columns are switched in the following table compared to the table above for the INVITE messages. This way the columns are aligned according to dialog across these tables; in other words, an incoming INVITE to Cisco Unified Communications Manager results in an outgoing 180.

The SIP Response messages detailed in this section include:

- [180 Ringing, page 1-14](#)
- [183 Session Progress, page 1-15](#)
- [2xx, page 1-15](#)

## 180 Ringing

**Table 1-14 180 Ringing Message Fields**

Message Lines	Variable	Outgoing (from Cisco Unified Communications Manager)	Incoming (to Cisco Unified Communications Manager)
<b>SIP/2.0 180 Ringing</b>			
Via: SIP/2.0/UPD ip:port;Branch=number	ip	Endpoint's IP address	Cisco Unified Communications Manager's IP address
	port	Endpoint's SIP port	Cisco Unified Communications Manager's SIP port
	number	Endpoint's branch number	Cisco Unified Communications Manager's branch number
From: "display"<sip:userpart@ip>;tag=from-tag	display	Calling Party Name	Calling Party Name
	userpart	Calling Party Number	Calling Party Number
	ip	Cisco Unified Communications Manager's IP address or FQDN	Cisco Unified Communications Manager's IP address
	from-tag	Endpoint's local tag	Cisco Unified Communications Manager's local tag

**Table 1-14 180 Ringing Message Fields (continued)**

<b>Message Lines</b>	<b>Variable</b>	<b>Outgoing (from Cisco Unified Communications Manager)</b>	<b>Incoming (to Cisco Unified Communications Manager)</b>
<b>To:</b> <sip:userpart@destIP>;tag=to-tag	userpart	Called Party Number	Called Party Number
	destIP	Cisco Unified Communications Manager's IP address or FQDN	Endpoint's IP address
	to-tag	Cisco Unified Communications Manager's local tag	Endpoint's local tag
<b>Remote-Party-ID:</b> "display" <sip:userpart@ip>;params	display	Called Party Name	Called Party Name
	userpart	Called Party Number	Called Party Number
	ip	Cisco Unified Communications Manager's IP address	Endpoint's IP address
	params	Varies per Cisco Unified Unified CM processing	Varies per endpoint processing
<b>Call-ID:</b> string	string	Endpoint-generated string from the initial INVITE	Cisco Unified Communications Manager-generated string from the initial INVITE
<b>Contact:&lt;sip:userpart@ip:port &gt;</b>	userpart	Called Party Number	Called Party Number
	ip	Cisco Unified Communications Manager's IP address	Endpoint's IP address
	port	Cisco Unified Communications Manager's port	Endpoint's port
<b>Cseq:</b> number INVITE	number	Sequence number from initial INVITE	Sequence number from initial INVITE

## 183 Session Progress

The 183 is used to establish early media. Cisco Unified Communications Manager will include SDP in a 183 sent to an endpoint. The Remote-Party-ID header may have changed as well. Otherwise, a 183 has the same values as a 180.

## 2xx



Most of the 2XX values are the same as 180; except, of course, 200 carries SDP. Also, the Remote-Party-ID may have changed after 18x was sent.

## SIP Message Fields

**Table 1-15 2XX Message Fields**

<b>Message Lines</b>	<b>Variable</b>	<b>Outgoing (from Cisco Unified Communications Manager)</b>	<b>Incoming (to Cisco Unified Communications Manager)</b>
<b>SIP/2.0 200 OK</b>			
<code>Via: SIP/2.0/UPD ip:port;Branch=number</code>	ip	Endpoint's IP address	Cisco Unified Communications Manager's IP address
	port	Endpoint's SIP port	Cisco Unified Communications Manager's SIP port
	number	Endpoint's branch number	Cisco Unified Communications Manager's branch number
<code>From: "display"&lt;sip:userpart@ip&gt;;tag=from-tag</code>	display	Calling Party Name	Calling Party Name
	userpart	Calling Party Number	Calling Party Number
	ip	Cisco Unified Communications Manager's IP address or FQDN	Cisco Unified Communications Manager's IP address
	from-tag	Endpoint's local tag	Cisco Unified Communications Manager's local tag
<code>To: &lt;sip:userpart@destIP&gt;;tag=to-tag</code>	userpart	Called Party Number	Called Party Number
	destIP	Cisco Unified Communications Manager's IP address or FQDN	Endpoint's IP address
	to-tag	Cisco Unified Communications Manager's local tag	Endpoint's local tag
<code>Remote-Party-ID: "display" &lt;sip:userpart@ip&gt;;params</code>	display	Called Party Name	Called Party Name
	userpart	Called Party Number	Called Party Number
	ip	Cisco Unified Communications Manager's IP address	Endpoint's IP address
	params	Varies per Cisco Unified Communications Manager processing	Varies per endpoint processing
<code>Call-ID: string</code>	string	Endpoint-generated string from the initial INVITE	Cisco Unified Communications Manager-generated string from the initial INVITE

**Table 1-15** 2XX Message Fields (continued)

<b>Message Lines</b>	<b>Variable</b>	<b>Outgoing (from Cisco Unified Communications Manager)</b>	<b>Incoming (to Cisco Unified Communications Manager)</b>
<b>Contact:&lt;sip:userpart@ip:port &gt;</b>	userpart	Called Party Number	Called Party Number
	ip	Cisco Unified Communications Manager's IP address	Endpoint's IP address
	port	Cisco Unified Communications Manager's port	Endpoint's port
<b>Cseq: number INVITE</b>	number	Sequence number from initial INVITE	Sequence number from initial INVITE
<b>SDP [sdp]</b>	sdp	Cisco Unified Communications Manager's SDP	Endpoint's SDP

## Message Timers

The following timers are service parameters that are configurable in Cisco Unified Communications Manager Administration. Cisco Unified Communications Manager maintains the following configuration data for the SIP timers.

**Table 1-16** Message Timers

<b>Message</b>	<b>Value (Default/Range)</b>	<b>Definition</b>
trying	500 ms/1000ms	The time to wait for a 100 response to an INVITE request.
connect	500 ms / 100-1000ms	The time to wait for a 200 response to an ACK request.
disconnect	500 ms / 100-1000ms	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.
rel1xx	500 ms / 100-1000ms	The amount of time that Cisco Unified Communications Manager should wait before retransmitting the reliable 1xx responses.
prack	500 ms / 100-1000ms	The amount of time that Cisco Unified Communications Manager should wait before retransmitting the PRACK request.
notify	500 ms / 100-1000ms	The amount of time that Cisco Unified Communications Manager should wait before retransmitting the Notify message.

## Message Retry Counts

All the following retry counts are service parameters that are configurable in Cisco Unified Communications Manager Administration. Cisco Unified Communications Manager maintains the following configuration data for the SIP retries. In case of TCP transportation type, the timers will still pop as usual. In the event of timeout, however, the stack won't retransmit; it will rely instead on TCP itself to do the retry.

**Table 1-17 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

## Standard Feature Scenarios

This section provides details with respect to overall flow and handling of standard SIP features on the Cisco Unified Communications Manager line-side interface. This includes, but is not limited to, the following features:

- [Registration, page 1-19](#)
- [Basic Call, page 1-21](#)
- [Simple Hold and Resume, page 1-21](#)
- [Transfer, page 1-21](#)
- [Three-Way Calling, page 1-23](#)
- [Call Forwarding, page 1-24](#)
- [Message Waiting Indication, page 1-24](#)
- [Endpoint Returns 302 Redirect, page 1-25](#)
- [Endpoint Returns 486 Busy, page 1-25](#)

For scenario descriptions and associated call flows, refer to Chapter 2, “SIP Basic Line Call Flows for Release 5.1(1).”

## Registration

Cisco Unified Communications Manager supports standard RFC3261 registration from any compliant SIP phone. Because Cisco Unified Communications Manager is a B2BUA, however, it must be able to uniquely identify the registering device in order to match that device with a configuration entry in the database. Furthermore, Cisco Unified Communications Manager must be able to identify the originating device (and line) for all other SIP requests it receives (INVITE, REFER, SUBSCRIBE, and so on) in order to authorize, filter, and route the message. Since standard SIP does not provide a consistent and unambiguous mechanism for identifying the originating device, for standard registration, Cisco Unified Communications Manager relies on the HTTP digest user ID to identify the sending device.

Knowledge of the sending device and line allows Cisco Unified Communications Manager to apply various routing, authorization, and filtering logic to incoming registrations, subscriptions, and invites.

TCP and UDP transports are supported for Standard registration, but not TLS.

### Source Device ID for RFC3261-Compliant Phones

Cisco Unified Communications Manager needs to uniquely identify the device sending the REGISTER message in order to apply authentication, routing, and filtering. The Contact IP address cannot be used because it can change dynamically if DHCP is used. Instead, Cisco Unified Communications Manager uses the HTTP digest user ID. Each device configured in Cisco Unified Communications Manager requires a unique digest user ID. When the device sends the REGISTER, Cisco Unified Communications Manager will immediately respond with a 401 challenge in order to get the Authentication header. The user ID from the authentication header is used to find the configuration entry in the database. If the third-party phone is not configured with the correct user ID, or the user ID is not associated with the device in the Cisco Unified Communications Manager database, Cisco Unified Communications Manager will respond with a 404 Not Found.

### MultiLine Registration

Multiple lines can register with Cisco Unified Communications Manager as long as they each have a different directory number. The directory number must appear in the To and From header of the REGISTER and it must be numeric.

### REGISTER Refresh (Keepalive)

Cisco Unified Communications Manager uses REGISTER refreshes as keepalive messages to ensure the phone is still alive and connected. When the phone first registers with Cisco Unified Communications Manager, the 200OK response will include an Expires header with the configured keepalive interval. The phone must send a REGISTER refresh within this interval with the same Call ID, Contact IP address, and Contact port number. If Cisco Unified Communications Manager fails to receive a keepalive message within the configured interval (default 120 seconds), it will unregister the phone internally so no calls can originate from or terminate to the phone.

### Device Binding

Once the device has been identified by the digest user ID, a binding is created within Cisco Unified Communications Manager between that device ID and the transport address. This binding is created because Cisco Unified Communications Manager must identify the sending device for all subsequent requests from the phone (INVITE, REFER, SUBSCRIBE, etc.) and these requests do not contain the

device ID. However, these requests do contain source transport information, so the binding is created between the device ID and the transport information. The transport information used is different for UDP and TCP.

For UDP, the binding is created between the device ID and the IP address and port number in the Contact header. After the first REGISTER message is sent, it is important that all subsequent requests use the same IP address and port number in the Contact header. If it changes, a 5xx error response will be returned because the message can not be routed by Cisco Unified Communications Manager.

For TCP, a combination of Contact binding and TCP connection binding is used. When a device registers over a TCP connection, Cisco Unified Communications Manager cannot determine whether the TCP connection will be transient (new connection used for each transaction) or persistent. Therefore, Cisco Unified Communications Manager initially binds the device ID to the Contact IP address and port number. After several transactions have been sent over the same TCP connection, it is considered “proved-in” and marked persistent. At this point, a binding is created between the device ID and the TCP connection.

## Multiple Bindings for the Same AOR

Cisco Unified Communications Manager has a minor deviation from RFC3261 for the case of multiple registration bindings for a single address of record. Under the Cisco Unified Communications Manager architecture, if three devices are configured to have a shared line at 321-1000, each will register a contact in the form of: 3211000@ip:port for that line. Each device will have its own unique IP address, and thus have a unique contact for that line. RFC3261 states that upon registration, all known contact bindings shall be returned to the registering entity in the 200OK response. Cisco Unified Communications Manager will only return the contact binding of the registering device during each registration; it will not enumerate other bindings it knows about for a given AOR during registration. A registering endpoint should not rely on the binding list returned in the 200OK as an exhaustive list for all bindings associated with the AOR. In addition, an endpoint cannot modify bindings for another device through Cisco Unified Communications Manager; it can only refresh or delete its own binding.

## Redundancy

The SIP phone should follow the DNS-SRV procedures described in RFC 3263 to achieve load balancing and redundancy. In order to work properly with Cisco Unified Communications Manager, the nodes listed in the SRV record must match the nodes configured in the Cisco Unified Communications Manager Group configuration assigned to the SIP device in the Cisco Unified Communications Manager database. It is the responsibility of the administrator to keep the SRV record synchronized with the Cisco Unified Communications Manager Group configuration. If the SRV query returns an address which is not part of the Cisco Unified Communications Manager Group for the device, and the phone attempts to register to that Cisco Unified Communications Manager, registration will fail. If an SRST node is configured in the Device Pool for the SIP phone, it can also be included in the SRV record, but only UDP is supported.

Cisco Unified Communications Manager uses a device-oriented approach to registration and redundancy. All lines on a single phone must register to the same Cisco Unified Communications Manager node, and when a failure is detected, all lines on the phone must fail over to the same secondary node. Registering the same line on more than one node is not allowed, nor is registering different lines from one physical device to different Cisco Unified Communications Manager nodes. Therefore, all lines on a given SIP phone must have the same DNS-SRV configuration. Load balancing is allowed on a device basis, so different SIP phones can have different DNS-SRV configurations.

A Cisco Unified Communications Manager node will not accept requests (other than REGISTER) from a SIP phone unless the phone is actively registered on that node. Therefore, the phone should send all non-REGISTER requests only to the actively registered node. If the active Cisco Unified Communications Manager fails and the phone is using UDP transport, there will be some delay (less than or equal to the registration refresh interval) until the phone detects the failure and re-registers with the next Cisco Unified Communications Manager in the SRV list. The Cisco Unified Communications Manager uses a short register refresh interval (default is 120 seconds), so it is likely that the failure will be detected before a call is attempted. However, if a shorter outage window is desired, the refresh interval can be changed in the SIP Station Keepalive Interval Service Parameter for the Cisco Unified CallManager service. Note that this applies to all SIP stations and may affect call capacity.

Typically when DNS-SRV is used, the DNS-SRV FQDN is included in the Request-URI for requests sent from the SIP phone to the CCM. If this is the case, the Cluster Fully Qualified Domain Name Enterprise Parameter must be updated to include the SRV FQDN. Otherwise, the address in the Request-URI will not be recognized as belonging to the Cisco Unified Communications Manager cluster, and the request will be rejected.

## Basic Call

Cisco Unified Communications Manager follows the procedures described in RFC 3261, 3262, and 3264 to establish and clear down basic SIP calls. Note that often, on the outgoing side, Cisco Unified Communications Manager will send out INVITE without SDP. This allows Cisco Unified Communications Manager to learn the capabilities of both sides and provide media services in between if necessary (e.g. transcoding).

## Simple Hold and Resume

Cisco Unified Communications Manager SIP line side supports simple media hold as per RFC 2543 (a.k.a. c = 0) or as per RFCs 3261 and 3264 (a = sendonly or a = inactive).

## Transfer

SIP line-side Transfer uses the REFER message and REFER with an embedded Replaces header as per RFC 3515.

For call transfer, there are three actors: the person being transferred is known as the transferee; the person transferring the call is known as the transferor; and the person receiving the transfer is known as the transfer target or simply the target.

Cisco Unified Communications Manager supports three types of transfer:

- Attended (a.k.a. Consultative)
- Early Attended
- Blind

### Attended Transfer

With attended transfer, the transferor places the transferee on hold and calls the target. After conversing with the target, the transferor completes the transfer and drops out of the call. The transferee is automatically taken off of hold and connected to the target.

## ■ Standard Feature Scenarios

Attended transfer involves two somewhat independent dialogs at the transferor's device up until the time the device sends a REFER with embedded replaces header. When this message is received, Cisco Unified Communications Manager knows the calls are associated.

Because Cisco Unified Communications Manager is a B2BUA, a REFER with embedded replaces does not trigger an INVITE with replaces from the transferee to the transfer target. The dialogs between Cisco Unified Communications Manager and each phone are independent. Instead, Cisco Unified Communications Manager reINVITEs (and UPDATEs) the transferee and transfer target to connect them together. During this process, the transferor will receive sipfrag NOTIFY messages. After the connection is complete, both dialogs between Cisco Unified Communications Manager and transferor are BYE'd.

Here is a more detailed view of what happens when the REFER is received:

1. Split transferor and transferee call:
  - reINVITE to disconnect media
2. Split transferor and transfer target call:
  - reINVITE to disconnect media
3. Join transferee and transfer target call legs:
  - reINVITE to connect media
  - UPDATE display name and number via Remote-Party-ID header
4. Clear transferor dialogs

## Early Attended Transfer

With early attended transfer, the transferor places the original call on hold and calls the target. Upon hearing ringback tone, the transferor transfers the call to the target and drops out of both calls. The transferee hears ringback while the target's phone is alerting. When the target answers, a connection is established between transferee and target.

The transferor's call flow, which uses a REFER with embedded replaces header, is based on existing implementation of this feature on the SIP phones and gateways. The problem with this implementation in a peer-to-peer environment is that it doesn't support parallel forking to multiple targets. Version 04 of the replaces draft specifically precludes a UAS from accepting a replaces header that was not initiated by that UA. The receiving UAS is required to return a 481 in that situation. Instead the existing implementation honors the request and replaces the early dialog. That causes it to send a 487 back to the transferor.



**Note** Please note that version 04 of the replaces draft came after the existing implementation. Nevertheless, we will continue to use this flow in a Cisco Unified Communications Manager environment for now.

Early attended transfer involves two somewhat independent dialogs at the transferor's device up until the time the device sends a REFER with embedded replaces header. When this message is received, Cisco Unified Communications Manager knows the calls are associated. Because Cisco Unified Communications Manager is a B2BUA, a REFER with replaces header does not trigger an INVITE with replaces from the transferee to the transfer target. The dialogs between Cisco Unified Communications Manager and each phone are independent. Instead, Cisco Unified Communications Manager reINVITEs (and UPDATEs) the transferee and transfer target to connect them together. During this process, the transferor will receive sipfrag NOTIFY messages. After the connection is complete, both dialogs between Cisco Unified Communications Manager and transferor are BYE'd.

Here is a more detailed view of what happens when the REFER is received:

1. Split transferor and transferee call:
  - reINVITE to disconnect media
2. Split transferor and transfer target call:
  - reINVITE sent to transferor to disconnect media
3. Join transferee and transfer target call legs:
  - reINVITE to connect media
  - UPDATE display name and number via Remote-Party-ID header
  - Clear transferor dialogs

Note that the transferee will **not** hear ringback although the target is alerting.

## Blind Transfer

With blind transfer, the transferor places the original call on hold and dials the target. The transferor then uses SIP REFER to redirect the transferee to the target. No call is made to the target prior to transfer. The timing for when the transferor drops out of the call depends on the transferor's implementation of the feature, but, most likely, the drop occurs when the transferor is notified that the redirect operation was accepted and has begun.

Note that the REFER does not contain an embedded replaces as it does for attended and early attended transfer.

## Three-Way Calling

Many SIP phones support local mixing by the endpoint. For example, the existing SIP implementation on the 7960/40 supports it. And it will continue to work for Cisco Unified Communications Manager line-side SIP endpoints. In order to support local mixing on the phone, Cisco Unified Communications Manager must allow the endpoint to have multiple active calls. Cisco Unified Communications Manager will allow this for SIP endpoints. From Cisco Unified Communications Manager's perspective, a locally mixed three-way call (or n-way for that matter) just looks like individual active calls. Cisco Unified Communications Manager is not aware of local mixing. Note that Cisco Unified Communications Manager conference-related features like Conference List and Remove Last Party do **not** apply.

In a SIP environment, the endpoint hosting a three-way call can drop out and arrange to have the remaining two parties connected together. With SIP this is accomplished using REFER with embedded replaces. Prior to this, there are two calls with four dialogs.

1. A.1 to B call
  - A.1 to Cisco Unified Communications Manager dialog
  - Cisco Unified Communications Manager to B dialog
2. A.2 to C call
  - A.2 to Cisco Unified Communications Manager dialog
  - Cisco Unified Communications Manager to C dialog

Phone A can drop out of the call by sending an in-dialog REFER on dialog A.1 with an embedded replaces header that specifies dialog A.2. Cisco Unified Communications Manager will invoke its attended transfer feature, which results in the remaining parties being connected together. Refer to the “Attended Transfer” section on page 1-21 for details regarding the operation of that feature.

## Call Forwarding

Call Forwarding occurs when a call is not answered by the original called party but, instead, is presented to one or more subsequent forwarded parties. There are three types of forwarding supported by Cisco Unified Communications Manager:

- Call Forward All (also known as Call Forward Unconditional)
- Call Forward No Answer
- Call Forward Busy

Only in the call forward no answer case is the call actually presented to the original called party. Call forward all and call forward busy are detected by Cisco Unified Communications Manager prior to sending an INVITE to the called party so forwarding bypasses that party. Call forward no answer will be detected via a timer in Cisco Unified Communications Manager so the canceling of the call to the original called party will be initiated by Cisco Unified Communications Manager.

Older Cisco SIP phones or third-party SIP phones may elect to implement forward all and forward busy locally on the phone, in which case they will need to use 302 (See “[Endpoint Returns 302 Redirect](#)” section on page 1-25) and 486 (See “[Endpoint Returns 486 Busy](#)” section on page 1-25) response codes, respectively, to the INVITE.

Cisco Unified Communications Manager informs the calling party that their call has been forwarded via “Remote-Party-ID:” headers in updated 180 messages. The type of forwarding is not communicated to the calling party.

For example:

```
Remote-Party-ID: "Line 1030 Name"
<sip:1030@172.18.203.78>;party=called;id-type=subscriber;privacy=off;screen=yes
```

Cisco Unified Communications Manager indicates forwarding to the called (or current forwarded-to) party using “Diversion:” headers in subsequent INVITEs. Cisco Unified Communications Manager will report at most two diversion headers. The first will indicate the last forwarding party and the second will indicate the original called party. In a single-hop forwarding case, only a single diversion header will be used since the original called party and last forwarding parties are the same. In a three-or-more-hop case the intermediate parties will not be communicated to the current forwarded-to party. For example:

```
Diversion: "Line 1020 Name" <sip:1020@172.18.203.99>;reason=no-answer;privacy=off;screen=yes
```

```
Diversion: "Line 2020 Name"
<sip:2020@172.18.203.99>;reason=unconditional;privacy=off;screen=yes
```

```
Diversion: "Line 3020 Name" <sip:3020@172.18.203.99>;reason=user-busy;privacy=off;screen=yes
```

The phone may activate Call Forward All via a softkey.

## Message Waiting Indication

Activation of Message Waiting Indication (MWI) on the phone is triggered via an unsolicited NOTIFY from Cisco Unified Communications Manager. The NOTIFY will have an event type of “message-summary” and a message body with content type of “application/simple-message-summary” and a body containing either “Messages-Waiting: yes” to instruct the phone to turn on its MWI or “Messages-Waiting: no” to instruct the phone to turn off its MWI.

This MWI Notify will be sent any time that Cisco Unified Communications Manager detects that the phone’s MWI status should change. This could occur if a message is left for that subscriber on a connected Voice Mail server and that Voice Mail server informs Cisco Unified Communications

Manager or if all messages are cleared. Additionally, this NOTIFY containing the current MWI state is always sent during registration of a line so that phones with flash memory can be assured of having the latest MWI state known to Cisco Unified Communications Manager.

## Endpoint Returns 302 Redirect

Because not all SIP phones will support the enhanced call forward all activation behavior to synchronize the call forward all state between the phone and Cisco Unified Communications Manager, some phones may allow the user to configure a call forward number on the phone locally and then return a 302 to an INVITE instead.

The 302 must contain a “Contact:” header indicating the party to which the call should be forwarded. A phone sending a 302 should also include a “Diversion:” header indicating its own name and number as well as the reason for forwarding.

When Cisco Unified Communications Manager receives a 302 from a phone, the call will be presented to the next party indicated in the contact header of that 302 with the diversion header from the 302 listed first (assuming the next party is also a SIP device). If that next party also forwards, the diversion header sent in the first 302 may be passed along to subsequent forwarded-to parties if the phone sending the 302 was the original called party.

## Endpoint Returns 486 Busy

All lines on Cisco Unified Communications Manager can be configured with a “busy trigger”. After the number of active calls to that line reaches the busy trigger, Cisco Unified Communications Manager will prevent further calls from being presented to that phone by initiating a call forward busy without sending another INVITE to the phone.

However, due to misconfiguration or the potential for calls to exist on the phone that Cisco Unified Communications Manager is not aware of (for example, a phone in a dialing state that hasn’t yet sent an INVITE), it may be necessary for the phone to manage its own “busy trigger” and autonomously throttle calls. This is accomplished by sending a 486 response code to an INVITE.

Although Cisco Unified Communications Manager may have Call Forward Busy behavior configured for a line (for example, forward to DN or forward to voicemail), that behavior will not be exercised when a 486 is received from the phone. Instead, the 486 will be passed back to the original called party.

**■ Standard Feature Scenarios**



## CHAPTER

# 2

## SIP Basic Line Call Flows for Release 5.1(1)

This chapter describes the SIP basic line side call flows introduced or modified in Cisco Unified Communications Manager Release 5.1. It shows the interfaces and interactions between Cisco Unified Communications Manager and SIP endpoints for basic calls and supplementary services. The new features and enhancements introduced in this release do not impose any backward compatibility implications on previous versions of the SIP line.

This chapter contains standard SIP call flow scenarios including registration and call processing for Cisco Unified Communications Manager Release 5.1. Each SIP call flow 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 including the phones and Cisco Unified Communications Manager nodes involved in the various SIP transactions. Each message sequence chart 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 message sequence charts representing phones are 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 message sequence chart.

Each message arrow ( →) is clickable. Clicking a message arrow will cause the document to display the detailed message.

Clicking [\[diagram\]](#) above the message will cause the document to display the page with the message sequence chart that contains that message.



### Note

Actual traces were used to generate the message sequence charts and detailed messages for each call scenario in this chapter. Every effort was taken to minimize extraneous messages that do not pertain to a given call flow, but there is no way to ensure this 100% of the time. You may notice some non-relevant messages and/or non relevant nodes in a particular call flow. For example, (re)REGISTER and (re)SUBSCRIBE and related transactions may show up in the middle of a call flow but do not really pertain to the scenario at hand. At times, you may even see a node that does not belong. An extra node can be easily recognized though because the relevant nodes and lines are listed in the Configuration section found prior to the first message sequence chart of each scenario.

## List of Scenarios:

### 1. Register

- 1.1 Register SIP 3rd-Party Phone (EyeBeam) with 1 Line
- 1.2 Register SIP 3rd-Party Phone (Polycom) with 3 lines

### 2. Basic Call

- 2.1 Basic Call - SIP Basic calls SIP Basic
- 2.2 Basic Call - SIP Basic phone calls an SCCP phone
- 2.3 Basic Call - SIP Basic calls SIP Basic - No Caller Id Restrictions
- 2.4 Basic Call - SIP Basic calls SIP Basic - Caller Id Restrictions
- 2.5 Calling and Connected Name ID - Different alerting/connected name
- 2.6 Calling and Connected Name ID
- 2.7 Multiple Lines Per Phone
- 2.8 Multiple Calls Per Line
- 2.9 Basic Call - SIP Basic calls SIP Basic
- 2.10 Call Screening (Normal blocked)
- 2.11 Call Screening (Rejected blocked)
- 2.12 Basic Call - SIP Basic calls unknown number
- 2.13 486 Busy Here

### 3. Hold Resume

- 3.1 Basic Call - Call Hold and Resume (SIP to SIP)
- 3.2 Basic Call - Call Hold and Resume (SIP to SCCP)

### 4. Conference

- 4.1 Three Way Conference Calling (SIP Basic Phones)

### 5. Transfer

- 5.1 Transfer Attended (All SIP Basic phones)
- 5.2 Transfer Semi-Attended (All SIP Basic phones)
- 5.3 Transfer Unattended (SIP Basic phones)

### 6. Call Forwarding

- 6.1 Call Forward All
- 6.2 Call Forward No Answer
- 6.3 Call Forward Busy
- 6.4 Call Forward Two Hops
- 6.5 302 Redirect

### 7. Call Forking

- 7.1 Call Forking

[8.1 Alert Info - Internal](#)

[8.2 Alert Info - External](#)

## 9. Message Waiting Indicator

[9.1 Message Waiting Indication On](#)

[9.2 Message Waiting Indication Off](#)

[9.3 Message Waiting Indication On at Registration](#)

[9.4 Message Waiting Indication Off at Registration](#)

## 1. Register

### 1.1 Register SIP 3rd-Party Phone (EyeBeam) with 1 Line

Title: Register SIP 3rd-Party Phone (EyeBeam) with 1 Line

Description:

This is the register sequence for a EyeBeam phone configured with 1 line. In order to find the device entry in the CallManager database, the phone must be identified by the HTTP digest user ID. Therefore, CallManager challenges the register to get the Authorization header containing the digest user ID (eyebeam). This happens for all 3rd-party phones regardless of whether the SIP Phone Security Profile is configured with digest authorization. The digest user ID must be configured as an End User in the database and associated with the device in the Digest User field of the Phone Configuration page. Also note that each user ID can be associated with only one device when used for 3rd-party configuration.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = U, Line = 3881070, IP = 5.5.5.7, Model = 3rd-Party

Scenario:

Line 3881070 registers with CCM

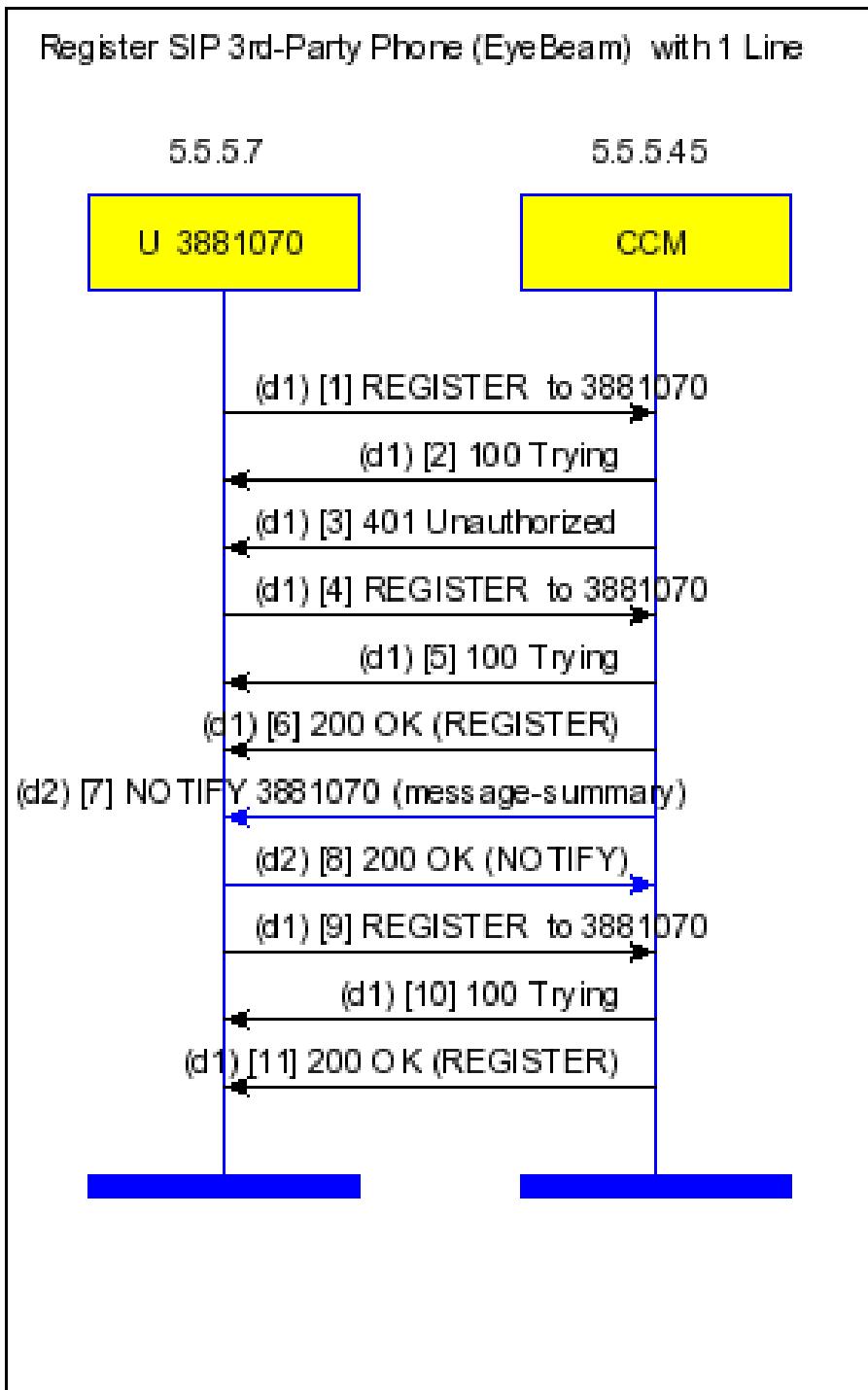
CCM challenges register with 401 response

Line 3881070 re-registers with Authorization header

CCM responds with 200 OK

CCM sends MWI status in a NOTIFY request

After 120 sec, Line 3881070 sends a register refresh to CCM (keepalive)



```
[diagram] Call-ID:[prev][next]
[1] REGISTER sip:titan-pub.sipnet5.com SIP/2.0
Via: SIP/2.0/UDP 5.5.7:56538;branch=z9hG4bK-d87543-230ff147c645990c-1--d87543-;rport
Max-Forwards: 70
Contact: <sip:3881070@5.5.7:56538;rinstance=bbee858f9ad5f990>
To: "3881070"<sip:3881070@titan-pub.sipnet5.com>
From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c
Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFINDk2Y2RiYTE3YTM1OWMwY2M.
CSeq: 1 REGISTER
Expires: 300
Allow: INVITE, ACK, CANCEL, OPTIONS, BYE, REFER, NOTIFY, MESSAGE, SUBSCRIBE, INFO
User-Agent: eyeBeam release 10031 stamp 30936
Content-Length: 0

[diagram] Call-ID:[prev][next]
[2] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.7:56538;branch=z9hG4bK-d87543-230ff147c645990c-1--d87543-;rport
From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c
To: "3881070"<sip:3881070@titan-pub.sipnet5.com>
Date: Mon, 18 Dec 2006 00:54:24 GMT
Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFINDk2Y2RiYTE3YTM1OWMwY2M.
CSeq: 1 REGISTER
Content-Length: 0

[diagram] Call-ID:[prev][next]
[3] SIP/2.0 401 Unauthorized
Via: SIP/2.0/UDP 5.5.7:56538;branch=z9hG4bK-d87543-230ff147c645990c-1--d87543-;rport
From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c
To: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=354740139
Date: Mon, 18 Dec 2006 00:54:24 GMT
Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFINDk2Y2RiYTE3YTM1OWMwY2M.
CSeq: 1 REGISTER
WWW-Authenticate: Digest realm="ccmsipline", nonce="hvZpOJdILngkoEuFDyrDtwbNw4Zpw8eB", algorithm=MD5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[4] REGISTER sip:titan-pub.sipnet5.com SIP/2.0
Via: SIP/2.0/UDP 5.5.7:56538;branch=z9hG4bK-d87543-a214e40e371c3701-1--d87543-;rport
Max-Forwards: 70
Contact: <sip:3881070@5.5.7:56538;rinstance=bbee858f9ad5f990>
To: "3881070"<sip:3881070@titan-pub.sipnet5.com>
From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c
Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFINDk2Y2RiYTE3YTM1OWMwY2M.
CSeq: 2 REGISTER
Expires: 300
Allow: INVITE, ACK, CANCEL, OPTIONS, BYE, REFER, NOTIFY, MESSAGE, SUBSCRIBE, INFO
User-Agent: eyeBeam release 10031 stamp 30936
Authorization: Digest
username="eyebeam",realm="ccmsipline",nonce="hvZpOJdILngkoEuFDyrDtwbNw4Zpw8eB",uri="sip:titan-pub.sipnet5.com",response="ea5ae9cc55c99a10e449bbc711f38eff",algorithm=MD5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[5] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.7:56538;branch=z9hG4bK-d87543-a214e40e371c3701-1--d87543-;rport
From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c
To: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=354740139
Date: Mon, 18 Dec 2006 00:54:24 GMT
Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFINDk2Y2RiYTE3YTM1OWMwY2M.
CSeq: 2 REGISTER
Content-Length: 0

[diagram] Call-ID:[prev][next]
[6] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.7:56538;branch=z9hG4bK-d87543-a214e40e371c3701-1--d87543-;rport
From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c
To: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=354740139
Date: Mon, 18 Dec 2006 00:54:24 GMT
Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFINDk2Y2RiYTE3YTM1OWMwY2M.
CSeq: 2 REGISTER
Expires: 120
Contact: <sip:3881070@5.5.7:56538;rinstance=bbee858f9ad5f990>;x-cisco-newreg
Content-Length: 0

[diagram] Call-ID:[prev][next]
[7] NOTIFY sip:3881070@5.5.7:56538;rinstance=bbee858f9ad5f990 SIP/2.0
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK236d8afe5
From: <sip:3881070@5.5.45>;tag=340413356
To: <sip:3881070@5.5.7>
Call-ID: 4c712580-5851e6c0-a-2d050505@5.5.5.45
```

CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 00:54:24 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: message-summary  
 Subscription-State: active  
 Contact: <sip:3881070@5.5.5.45:5060>  
 Content-Type: application/simple-message-summary  
 Content-Length: 22

Messages-Waiting: no

**[diagram] Call-ID:[prev][next]**  
**[8] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK236d8afe5  
 Contact: <sip:5.5.5.7:56538>  
 To: <sip:3881070@5.5.7>;tag=6d389b64  
 From: <sip:3881070@5.5.5.45>;tag=340413356  
 Call-ID: 4c712580-5851e6c0-a-2d050505@5.5.45  
 CSeq: 101 NOTIFY  
 User-Agent: eyeBeam release 10031 stamp 30936  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[9] REGISTER sip:titan-pub.sipnet5.com SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.7:56538;branch=z9hG4bK-d87543-73781b500f224003-1--d87543-;rport  
 Max-Forwards: 70  
 Contact: <sip:3881070@5.5.7:56538;rinstance=bbee858f9ad5f990>  
 To: "3881070"<sip:3881070@titan-pub.sipnet5.com>  
 From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c  
 Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFiNDk2Y2RiYTE3YTM1OWMwY2M.  
 CSeq: 3 REGISTER  
 Expires: 300  
 Allow: INVITE, ACK, CANCEL, OPTIONS, BYE, REFER, NOTIFY, MESSAGE, SUBSCRIBE, INFO  
 User-Agent: eyeBeam release 10031 stamp 30936  
 Authorization: Digest  
 username="eyebeam",realm="ccmsipline",nonce="hvZpOJdILngkoEuFDyrDtwbNw4Zpw8eB",uri="sip:titan-pub.sipnet5.com",response="ea5ae9cc55c99a10e449bbc711f38eff",algorithm=MD5  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[10] SIP/2.0 100 Trying**  
 Via: SIP/2.0/UDP 5.5.5.7:56538;branch=z9hG4bK-d87543-73781b500f224003-1--d87543-;rport  
 From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c  
 To: "3881070"<sip:3881070@titan-pub.sipnet5.com>  
 Date: Mon, 18 Dec 2006 00:56:13 GMT  
 Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFiNDk2Y2RiYTE3YTM1OWMwY2M.  
 CSeq: 3 REGISTER  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[11] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.7:56538;branch=z9hG4bK-d87543-73781b500f224003-1--d87543-;rport  
 From: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=af01196c  
 To: "3881070"<sip:3881070@titan-pub.sipnet5.com>;tag=2104854481  
 Date: Mon, 18 Dec 2006 00:56:13 GMT  
 Call-ID: faldce05675f524eNGE1MjNkMTdhMDdjZjFiNDk2Y2RiYTE3YTM1OWMwY2M.  
 CSeq: 3 REGISTER  
 Expires: 120  
 Contact: <sip:3881070@5.5.7:56538;rinstance=bbee858f9ad5f990>  
 Content-Length: 0

## 1.2 Register SIP 3rd-Party Phone (Polycom) with 3 lines

Title: Register SIP 3rd-Party Phone (Polycom) with 3 lines

Description:

This is the register sequence for a Polycom 3rd-party SIP phone configured with 3 lines. In order to find the device entry in the CallManager database, the phone must be identified by the HTTP digest user ID. Therefore, the CCM challenges the register to get the Authorization header containing the digest user ID (polycom). This happens for all 3rd-party phones regardless of whether the SIP Phone Security Profile is configured with digest authorization. The digest user ID must be configured as an End User in the database and associated with the device in the Digest User field of the Phone Configuration page. Also note that each user ID can be associated with only one device when used for 3rd-party configuration.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = V, Line = 3881000-3881002, IP = 5.5.5.200, Model = 3rd-Party

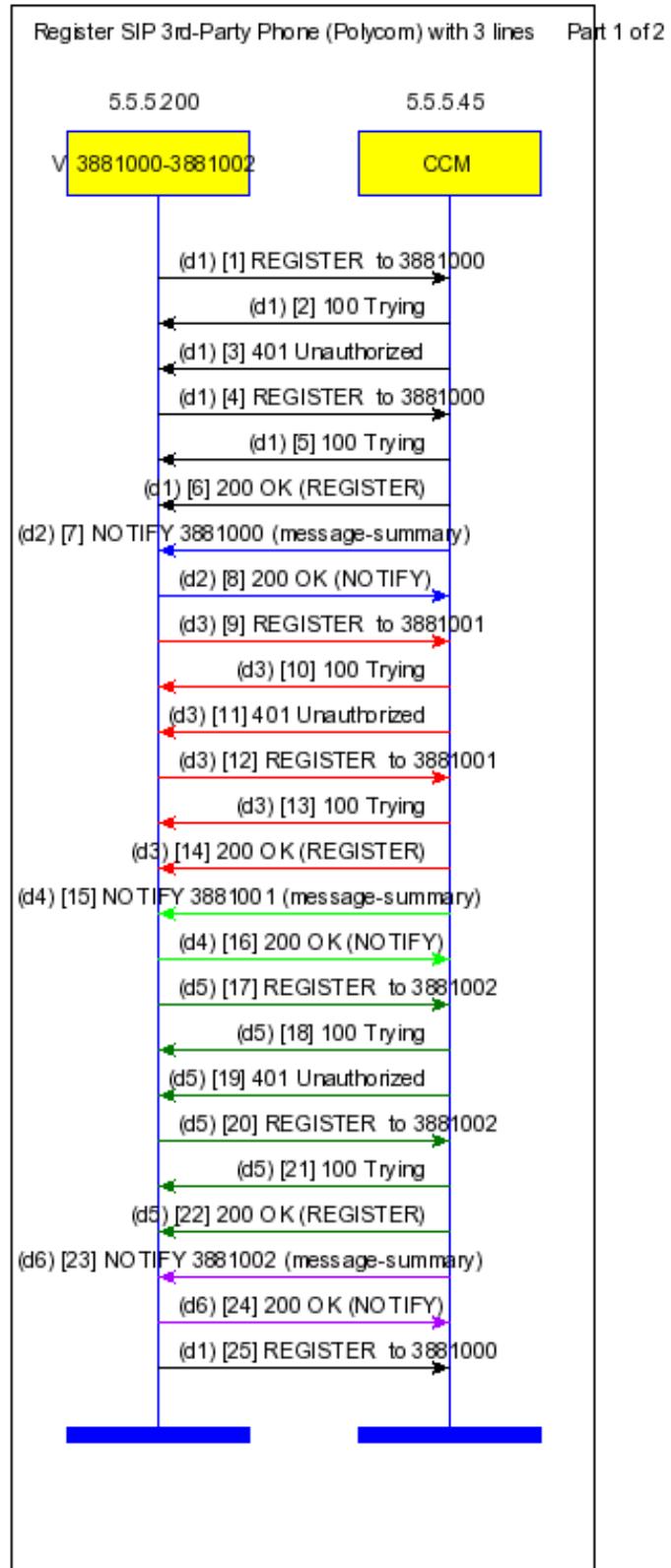
Scenario:

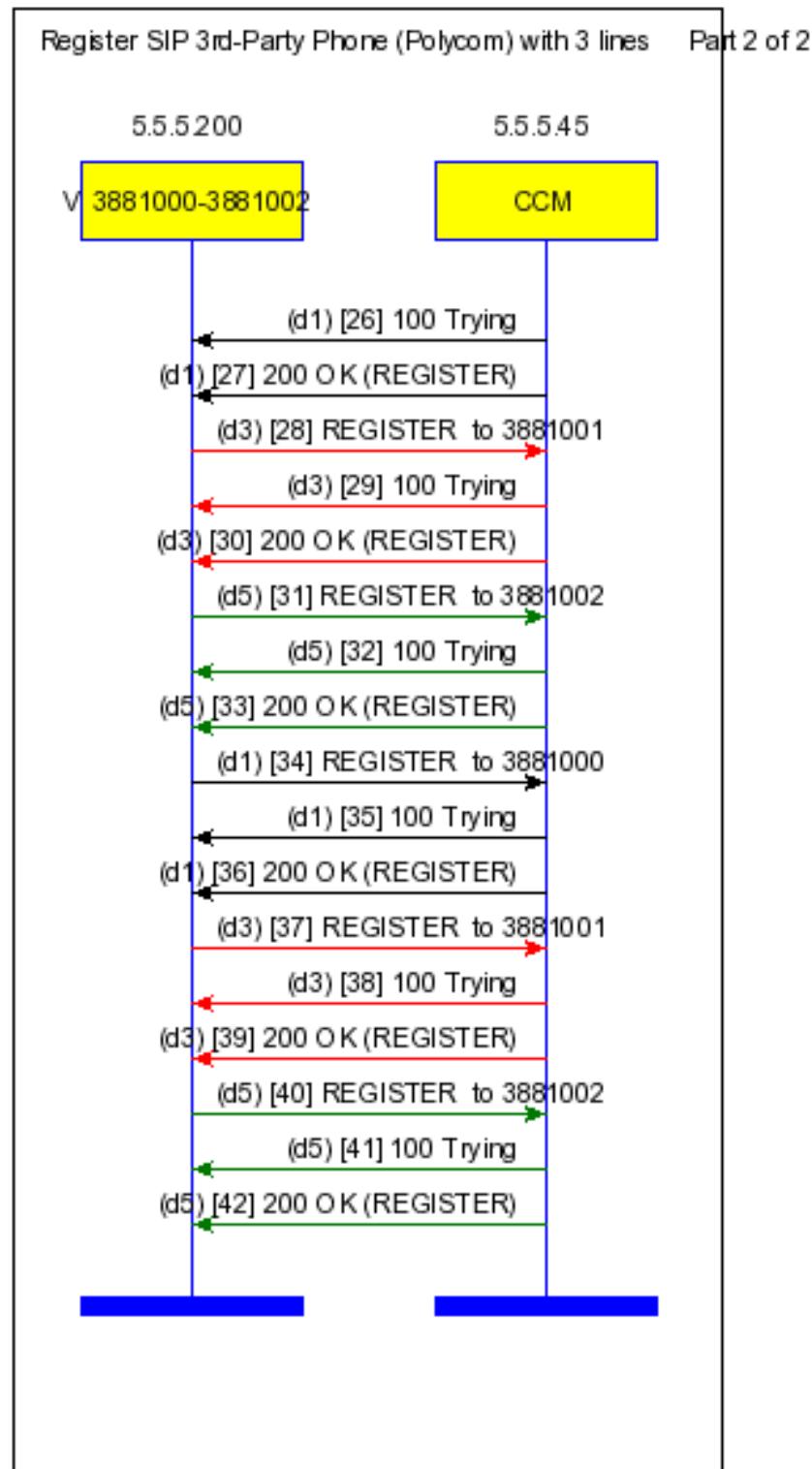
Lines 3881000-3881002 register with CCM

CCM challenges line 3881000 register

CCM sends MWI status

After 120 sec, Line 3881000 sends a register refresh to CCM (keepalive)





```
[diagram] Call-ID:[prev][next]
[1] REGISTER sip:titan-pub:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK42a25a78D31A30A7
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B
To: <sip:3881000@titan-pub>
CSeq: 1 REGISTER
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200
Contact: <sip:3881000@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"
User-Agent: PolycomSoundPointIP-SPIP_501-UA/1.6.3.0067
Max-Forwards: 70
Expires: 120
Content-Length: 0

[diagram] Call-ID:[prev][next]
[2] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK42a25a78D31A30A7
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B
To: <sip:3881000@titan-pub>
Date: Mon, 18 Dec 2006 01:31:21 GMT
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200
CSeq: 1 REGISTER
Content-Length: 0

[diagram] Call-ID:[prev][next]
[3] SIP/2.0 401 Unauthorized
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK42a25a78D31A30A7
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B
To: <sip:3881000@titan-pub>;tag=705367465
Date: Mon, 18 Dec 2006 01:31:21 GMT
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200
CSeq: 1 REGISTER
WWW-Authenticate: Digest realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", algorithm=MD5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[4] REGISTER sip:titan-pub:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK4c54087d5DAC1680
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B
To: <sip:3881000@titan-pub>
CSeq: 2 REGISTER
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200
Contact: <sip:3881000@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"
User-Agent: PolycomSoundPointIP-SPIP_501-UA/1.6.3.0067
Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5
Max-Forwards: 70
Expires: 120
Content-Length: 0

[diagram] Call-ID:[prev][next]
[5] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK4c54087d5DAC1680
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B
To: <sip:3881000@titan-pub>;tag=705367465
Date: Mon, 18 Dec 2006 01:31:21 GMT
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200
CSeq: 2 REGISTER
Content-Length: 0

[diagram] Call-ID:[prev][next]
[6] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK4c54087d5DAC1680
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B
To: <sip:3881000@titan-pub>;tag=705367465
Date: Mon, 18 Dec 2006 01:31:21 GMT
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200
CSeq: 2 REGISTER
Expires: 120
Contact: <sip:3881000@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER";x-cisco-newreg
Content-Length: 0

[diagram] Call-ID:[prev][next]
[7] NOTIFY sip:3881000@5.5.5.200 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK12b4a376d
From: <sip:3881000@5.5.5.45>;tag=476333940
To: <sip:3881000@5.5.5.200>
Call-ID: 75e08000-5851ef69-6a-2d050505@5.5.5.45
```

CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 01:31:21 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: message-summary  
 Subscription-State: active  
 Contact: <sip:3881000@5.5.5.45:5060>  
 Content-Type: application/simple-message-summary  
 Content-Length: 22

Messages-Waiting: no

**[diagram] Call-ID:[prev][next]**  
**[8] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK12b4a376d  
 From: <sip:3881000@5.5.5.45>;tag=476333940  
 To: <sip:3881000@5.5.5.200>;tag=283A4F9A-FAE642CF  
 CSeq: 101 NOTIFY  
 Call-ID: 75e08000-5851ef69-6a-2d050505@5.5.5.45  
 Contact: <sip:3881000@5.5.5.200>  
 Event: message-summary  
 User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[9] REGISTER sip:titan-pub:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK261eebd1DD5FF624  
 From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
 To: <sip:3881001@titan-pub>  
 CSeq: 1 REGISTER  
 Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
 Contact: <sip:3881001@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
 User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
 Max-Forwards: 70  
 Expires: 120  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[10] SIP/2.0 100 Trying**  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK261eebd1DD5FF624  
 From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
 To: <sip:3881001@titan-pub>  
 Date: Mon, 18 Dec 2006 01:31:22 GMT  
 Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
 CSeq: 1 REGISTER  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[11] SIP/2.0 401 Unauthorized**  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK261eebd1DD5FF624  
 From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
 To: <sip:3881001@titan-pub>;tag=1606623425  
 Date: Mon, 18 Dec 2006 01:31:22 GMT  
 Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
 CSeq: 1 REGISTER  
 WWW-Authenticate: Digest realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", algorithm=MD5  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] REGISTER sip:titan-pub:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK99c12f6294F480B9  
 From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
 To: <sip:3881001@titan-pub>  
 CSeq: 2 REGISTER  
 Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
 Contact: <sip:3881001@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
 User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
 Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5  
 Max-Forwards: 70  
 Expires: 120  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[13] SIP/2.0 100 Trying**  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK99c12f6294F480B9  
 From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
 To: <sip:3881001@titan-pub>;tag=1606623425

Date: Mon, 18 Dec 2006 01:31:22 GMT  
 Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
 CSeq: 2 REGISTER  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [14] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK99c12f6294F480B9  
 From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
 To: <sip:3881001@titan-pub>;tag=1606623425  
 Date: Mon, 18 Dec 2006 01:31:22 GMT  
 Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
 CSeq: 2 REGISTER  
 Expires: 120  
 Contact: <sip:3881001@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [15] NOTIFY sip:3881001@5.5.5.200 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK136bb9780d  
 From: <sip:3881001@5.5.5.45>;tag=774655541  
 To: <sip:3881001@5.5.5.200>  
 Call-ID: 76791680-5851ef6a-6c-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 01:31:22 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: message-summary  
 Subscription-State: active  
 Contact: <sip:3881001@5.5.5.45:5060>  
 Content-Type: application/simple-message-summary  
 Content-Length: 22

Messages-Waiting: no

[diagram] Call-ID:[prev][next]  
 [16] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK136bb9780d  
 From: <sip:3881001@5.5.5.45>;tag=774655541  
 To: <sip:3881001@5.5.5.200>;tag=8377A2AB-BAFC6CAC  
 CSeq: 101 NOTIFY  
 Call-ID: 76791680-5851ef6a-6c-2d050505@5.5.5.45  
 Contact: <sip:3881001@5.5.5.200>  
 Event: message-summary  
 User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [17] REGISTER sip:titan-pub:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK60e063e67B0D1A4D  
 From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
 To: <sip:3881002@titan-pub>  
 CSeq: 1 REGISTER  
 Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
 Contact: <sip:3881002@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
 User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
 Max-Forwards: 70  
 Expires: 120  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [18] SIP/2.0 100 Trying  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK60e063e67B0D1A4D  
 From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
 To: <sip:3881002@titan-pub>  
 Date: Mon, 18 Dec 2006 01:31:23 GMT  
 Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
 CSeq: 1 REGISTER  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [19] SIP/2.0 401 Unauthorized  
 Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK60e063e67B0D1A4D  
 From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
 To: <sip:3881002@titan-pub>;tag=547716426  
 Date: Mon, 18 Dec 2006 01:31:23 GMT  
 Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
 CSeq: 1 REGISTER

WWW-Authenticate: Digest realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", algorithm=MD5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[20] REGISTER sip:titan-pub:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKdb44045376D16A2E  
From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
To: <sip:3881002@titan-pub>  
CSeq: 2 REGISTER  
Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
Contact: <sip:3881002@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5  
Max-Forwards: 70  
Expires: 120  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[21] SIP/2.0 100 Trying  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKdb44045376D16A2E  
From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
To: <sip:3881002@titan-pub>;tag=547716426  
Date: Mon, 18 Dec 2006 01:31:23 GMT  
Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
CSeq: 2 REGISTER  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[22] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKdb44045376D16A2E  
From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
To: <sip:3881002@titan-pub>;tag=547716426  
Date: Mon, 18 Dec 2006 01:31:23 GMT  
Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
CSeq: 2 REGISTER  
Expires: 120  
Contact: <sip:3881002@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[23] NOTIFY sip:3881002@5.5.5.200 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK143be00b08  
From: <sip:3881002@5.5.5.45>;tag=106539606  
To: <sip:3881002@5.5.5.200>  
Call-ID: 7711ad00-5851ef6b-6e-2d050505@5.5.5.45  
CSeq: 101 NOTIFY  
Max-Forwards: 70  
Date: Mon, 18 Dec 2006 01:31:23 GMT  
User-Agent: Cisco-CCM5.1  
Event: message-summary  
Subscription-State: active  
Contact: <sip:3881002@5.5.5.45:5060>  
Content-Type: application/simple-message-summary  
Content-Length: 22

Messages-Waiting: no

[diagram] Call-ID:[prev][next]  
[24] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK143be00b08  
From: <sip:3881002@5.5.5.45>;tag=106539606  
To: <sip:3881002@5.5.5.200>;tag=A2078498-B7C04FB5  
CSeq: 101 NOTIFY  
Call-ID: 7711ad00-5851ef6b-6e-2d050505@5.5.5.45  
Contact: <sip:3881002@5.5.5.200>  
Event: message-summary  
User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[25] REGISTER sip:titan-pub:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK5d651b47D45E83F2  
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B  
To: <sip:3881000@titan-pub>  
CSeq: 3 REGISTER  
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200  
Contact: <sip:3881000@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE,

NOTIFY, PRACK, UPDATE, REFER"  
User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5  
Max-Forwards: 70  
Expires: 120  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[26] SIP/2.0 100 Trying**  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK5d651b47D45E83F2  
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B  
To: <sip:3881000@titan-pub>  
Date: Mon, 18 Dec 2006 01:32:21 GMT  
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200  
CSeq: 3 REGISTER  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[27] SIP/2.0 200 OK**  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK5d651b47D45E83F2  
From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B  
To: <sip:3881000@titan-pub>;tag=594140781  
Date: Mon, 18 Dec 2006 01:32:21 GMT  
Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200  
CSeq: 3 REGISTER  
Expires: 120  
Contact: <sip:3881000@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[28] REGISTER sip:titan-pub:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKd9d953891F4066BC  
From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
To: <sip:3881001@titan-pub>  
CSeq: 3 REGISTER  
Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
Contact: <sip:3881001@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5  
Max-Forwards: 70  
Expires: 120  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[29] SIP/2.0 100 Trying**  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKd9d953891F4066BC  
From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
To: <sip:3881001@titan-pub>  
Date: Mon, 18 Dec 2006 01:32:22 GMT  
Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
CSeq: 3 REGISTER  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[30] SIP/2.0 200 OK**  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKd9d953891F4066BC  
From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
To: <sip:3881001@titan-pub>;tag=173364753  
Date: Mon, 18 Dec 2006 01:32:22 GMT  
Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
CSeq: 3 REGISTER  
Expires: 120  
Contact: <sip:3881001@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[31] REGISTER sip:titan-pub:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK63fb0fb302FC776  
From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
To: <sip:3881002@titan-pub>  
CSeq: 3 REGISTER  
Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
Contact: <sip:3881002@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067

Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5  
 Max-Forwards: 70  
 Expires: 120  
 Content-Length: 0

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

[32] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK63fb0fb302FC776  
 From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
 To: <sip:3881002@titan-pub>  
 Date: Mon, 18 Dec 2006 01:32:23 GMT  
 Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
 CSeq: 3 REGISTER  
 Content-Length: 0

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

[33] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK63fb0fb302FC776  
 From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
 To: <sip:3881002@titan-pub>;tag=560834852  
 Date: Mon, 18 Dec 2006 01:32:23 GMT  
 Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
 CSeq: 3 REGISTER  
 Expires: 120  
 Contact: <sip:3881002@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
 Content-Length: 0

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

[34] REGISTER sip:titan-pub:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK91eb781d3E887CA0  
 From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B  
 To: <sip:3881000@titan-pub>  
 CSeq: 4 REGISTER  
 Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200  
 Contact: <sip:3881000@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
 User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
 Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5  
 Max-Forwards: 70  
 Expires: 120  
 Content-Length: 0

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

[35] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK91eb781d3E887CA0  
 From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B  
 To: <sip:3881000@titan-pub>  
 Date: Mon, 18 Dec 2006 01:33:21 GMT  
 Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200  
 CSeq: 4 REGISTER  
 Content-Length: 0

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

[36] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK91eb781d3E887CA0  
 From: "3881000" <sip:3881000@titan-pub>;tag=6FCDDC56-2482A05B  
 To: <sip:3881000@titan-pub>;tag=1945166909  
 Date: Mon, 18 Dec 2006 01:33:21 GMT  
 Call-ID: ba6076d2-3915ae9c-7603b9e9@5.5.5.200  
 CSeq: 4 REGISTER  
 Expires: 120  
 Contact: <sip:3881000@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
 Content-Length: 0

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

[37] REGISTER sip:titan-pub:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK2dc2596fBCFF38BA  
 From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
 To: <sip:3881001@titan-pub>  
 CSeq: 4 REGISTER  
 Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
 Contact: <sip:3881001@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
 User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
 Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5

Max-Forwards: 70  
Expires: 120  
Content-Length: 0

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

[38] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK2dc2596fBCFF38BA  
From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
To: <sip:3881001@titan-pub>  
Date: Mon, 18 Dec 2006 01:33:22 GMT  
Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
CSeq: 4 REGISTER  
Content-Length: 0

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

[39] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bK2dc2596fBCFF38BA  
From: "3881001" <sip:3881001@titan-pub>;tag=E539AFF7-A93B7188  
To: <sip:3881001@titan-pub>;tag=227906249  
Date: Mon, 18 Dec 2006 01:33:22 GMT  
Call-ID: d6a40c03-467037e5-2327949e@5.5.5.200  
CSeq: 4 REGISTER  
Expires: 120  
Contact: <sip:3881001@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
Content-Length: 0

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

[40] REGISTER sip:titan-pub:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKe04bd171B9482A44  
From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
To: <sip:3881002@titan-pub>  
CSeq: 4 REGISTER  
Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
Contact: <sip:3881002@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
User-Agent: PolycomSoundPointIP-SPIP\_501-UA/1.6.3.0067  
Authorization: Digest username="polycom", realm="ccmsipline", nonce="+tnBFjsEaIz+OMYDrJUr/JEBjvdKNv60", uri="sip:titan-pub:5060", response="f1ad94f90e9a5e0154eb6b8d86c68a90", algorithm=MD5  
Max-Forwards: 70  
Expires: 120  
Content-Length: 0

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

[41] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKe04bd171B9482A44  
From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
To: <sip:3881002@titan-pub>  
Date: Mon, 18 Dec 2006 01:33:23 GMT  
Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
CSeq: 4 REGISTER  
Content-Length: 0

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

[42] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.200;branch=z9hG4bKe04bd171B9482A44  
From: "3881002" <sip:3881002@titan-pub>;tag=D4C13234-2DA418A1  
To: <sip:3881002@titan-pub>;tag=565146608  
Date: Mon, 18 Dec 2006 01:33:23 GMT  
Call-ID: 25788b90-90d0362a-8a75181f@5.5.5.200  
CSeq: 4 REGISTER  
Expires: 120  
Contact: <sip:3881002@5.5.5.200>;methods="INVITE, ACK, BYE, CANCEL, OPTIONS, INFO, MESSAGE, SUBSCRIBE, NOTIFY, PRACK, UPDATE, REFER"  
Content-Length: 0

## 2. Basic Call

### 2.1 Basic Call - SIP Basic calls SIP Basic

Title: Basic Call - SIP Basic calls SIP Basic

Description:

A SIP Basic phone calls another SIP Basic phone.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

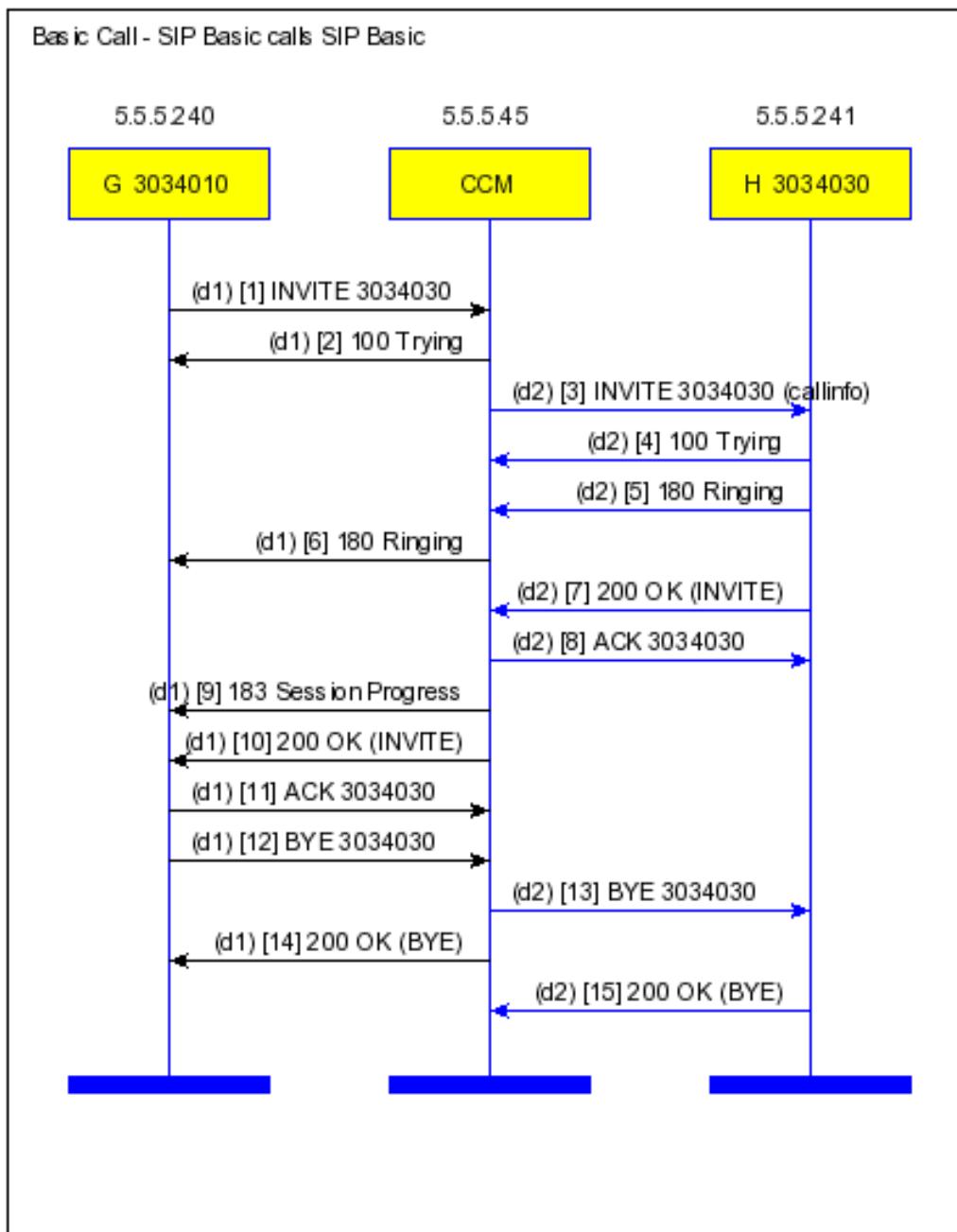
Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 answers

3034010 goes onhook



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

[1] **INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0bb0f09b  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000820fe8ef8-250d7035  
 To: <sip:3034030@5.5.5.45>  
 Call-ID: 001a2f8d-f17f0006-6f3ef0ab-7ee4f03f@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:33:37 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 26576 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26636 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtpt:101 0-15  
 a=sendrecv

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

[2] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0bb0f09b  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000820fe8ef8-250d7035  
 To: <sip:3034030@5.5.45>  
 Date: Sat, 09 Dec 2006 17:33:37 GMT  
 Call-ID: 001a2f8d-f17f0006-6f3ef0ab-7ee4f03f@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[3] **INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb18560f86  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228510  
 To: <sip:3034030@5.5.241>  
 Date: Sat, 09 Dec 2006 17:33:37 GMT  
 Call-ID: 657f3400-57a1f371-1d-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

[4] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb18560f86  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228510  
 To: <sip:3034030@5.5.241>  
 Call-ID: 657f3400-57a1f371-1d-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:33:36 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb18560f86  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228510  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600086959cae2-304794c0  
Call-ID: 657f3400-57a1f371-1d-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:33:36 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0bb0f09b  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000820fe8ef8-250d7035  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228509  
Date: Sat, 09 Dec 2006 17:33:37 GMT  
Call-ID: 001a2f8d-f17f0006-6f3ef0ab-7ee4f03f@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb18560f86  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228510  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600086959cae2-304794c0  
Call-ID: 657f3400-57a1f371-1d-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:33:37 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 19919 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17380 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKc123e299e  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228510  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600086959cae2-304794c0  
Date: Sat, 09 Dec 2006 17:33:37 GMT  
Call-ID: 657f3400-57a1f371-1d-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26636 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0bb0f09b  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000820fe8ef8-250d7035  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228509  
 Date: Sat, 09 Dec 2006 17:33:37 GMT  
 Call-ID: 001a2f8d-f17f0006-6f3ef0ab-7ee4f03f@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17380 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 5.5.5.240:5060;branch=z9hG4bK0bb0f09b  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000820fe8ef8-250d7035  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228509  
 Date: Sat, 09 Dec 2006 17:33:37 GMT  
 Call-ID: 001a2f8d-f17f0006-6f3ef0ab-7ee4f03f@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17380 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:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK79d36215  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000820fe8ef8-250d7035  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228509  
 Call-ID: 001a2f8d-f17f0006-6f3ef0ab-7ee4f03f@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:33:39 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] BYE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0e14c528  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000820fe8ef8-250d7035  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228509  
 Call-ID: 001a2f8d-f17f0006-6f3ef0ab-7ee4f03f@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:33:42 GMT  
 CSeq: 102 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

```
[diagram] Call-ID:[prev][next]
[13] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKd12641fff4
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228510
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600086959cae2-304794c0
Date: Sat, 09 Dec 2006 17:33:37 GMT
Call-ID: 657f3400-57a1f371-1d-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0e14c528
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000820fe8ef8-250d7035
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228509
Date: Sat, 09 Dec 2006 17:33:42 GMT
Call-ID: 001a2f8d-f17f0006-6f3ef0ab-7ee4f03f@5.5.5.240
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[15] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKd12641fff4
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228510
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600086959cae2-304794c0
Call-ID: 657f3400-57a1f371-1d-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:33:41 GMT
CSeq: 102 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0
```

## 2.2 Basic Call - SIP Basic phone calls an SCCP phone

Title: Basic Call - SIP Basic phone calls an SCCP phone

Description:

SIP Basic phone calls an SCCP phone.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = I, Line = 3031010, IP = 5.5.5.217, Model = SCCP

Scenario:

3034010 calls 3031010

3031010 answers

3034010 goes onhook

## Basic Call - SIP Basic phone calls an SCCP phone

5.5.5.240

5.5.5.45

G 3034010

CCM

(d1) [1] INVITE 3031010 →

← (d1) [2] 100 Trying

← (d1) [3] 180 Ringing

← (d1) [4] 200 OK (INVITE)

→ (d1) [5] ACK 3031010

→ (d1) [6] BYE 3031010

← (d1) [7] 200 OK (BYE)

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

**[1] INVITE sip:3031010@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1371404c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000478841d1c-0ec027c0  
To: <sip:3031010@5.5.5.45>  
Call-ID: 001a2f8d-f17f0004-3d7f2217-00f44e93@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:27:28 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 1947 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26628 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1371404c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000478841d1c-0ec027c0  
To: <sip:3031010@5.5.5.45>  
Date: Sat, 09 Dec 2006 17:27:28 GMT  
Call-ID: 001a2f8d-f17f0004-3d7f2217-00f44e93@5.5.5.240  
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 5.5.5.240:5060;branch=z9hG4bK1371404c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000478841d1c-0ec027c0  
To: <sip:3031010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228505  
Date: Sat, 09 Dec 2006 17:27:28 GMT  
Call-ID: 001a2f8d-f17f0004-3d7f2217-00f44e93@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "Megan" <sip:3031010@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3031010@5.5.5.45:5060>  
Content-Length: 0

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

**[4] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1371404c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000478841d1c-0ec027c0  
To: <sip:3031010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228505  
Date: Sat, 09 Dec 2006 17:27:28 GMT  
Call-ID: 001a2f8d-f17f0004-3d7f2217-00f44e93@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "Megan" <sip:3031010@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3031010@5.5.5.45:5060>  
Supported: replaces  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.217  
t=0 0  
m=audio 26248 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:3031010@5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK26892e98
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f000478841d1c-0ec027c0
To: <sip:3031010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228505
Call-ID: 001a2f8d-f17f0004-3d7f2217-00f44e93@5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:27:34 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[6] BYE sip:3031010@5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK0af9991a
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f000478841d1c-0ec027c0
To: <sip:3031010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228505
Call-ID: 001a2f8d-f17f0004-3d7f2217-00f44e93@5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:27:40 GMT
CSeq: 102 BYE
User-Agent: Cisco-CP7960G/7.5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[7] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK0af9991a
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f000478841d1c-0ec027c0
To: <sip:3031010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228505
Date: Sat, 09 Dec 2006 17:27:40 GMT
Call-ID: 001a2f8d-f17f0004-3d7f2217-00f44e93@5.5.240
CSeq: 102 BYE
Content-Length: 0

```

## 2.3 Basic Call - SIP Basic calls SIP Basic - No Caller Id Restrictions

Title: Basic Call - SIP Basic calls SIP Basic - No Caller Id Restrictions

Description:

A SIP Basic phone calls another SIP Basic phone. No callerid blocking restrictions configured in the CCM.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

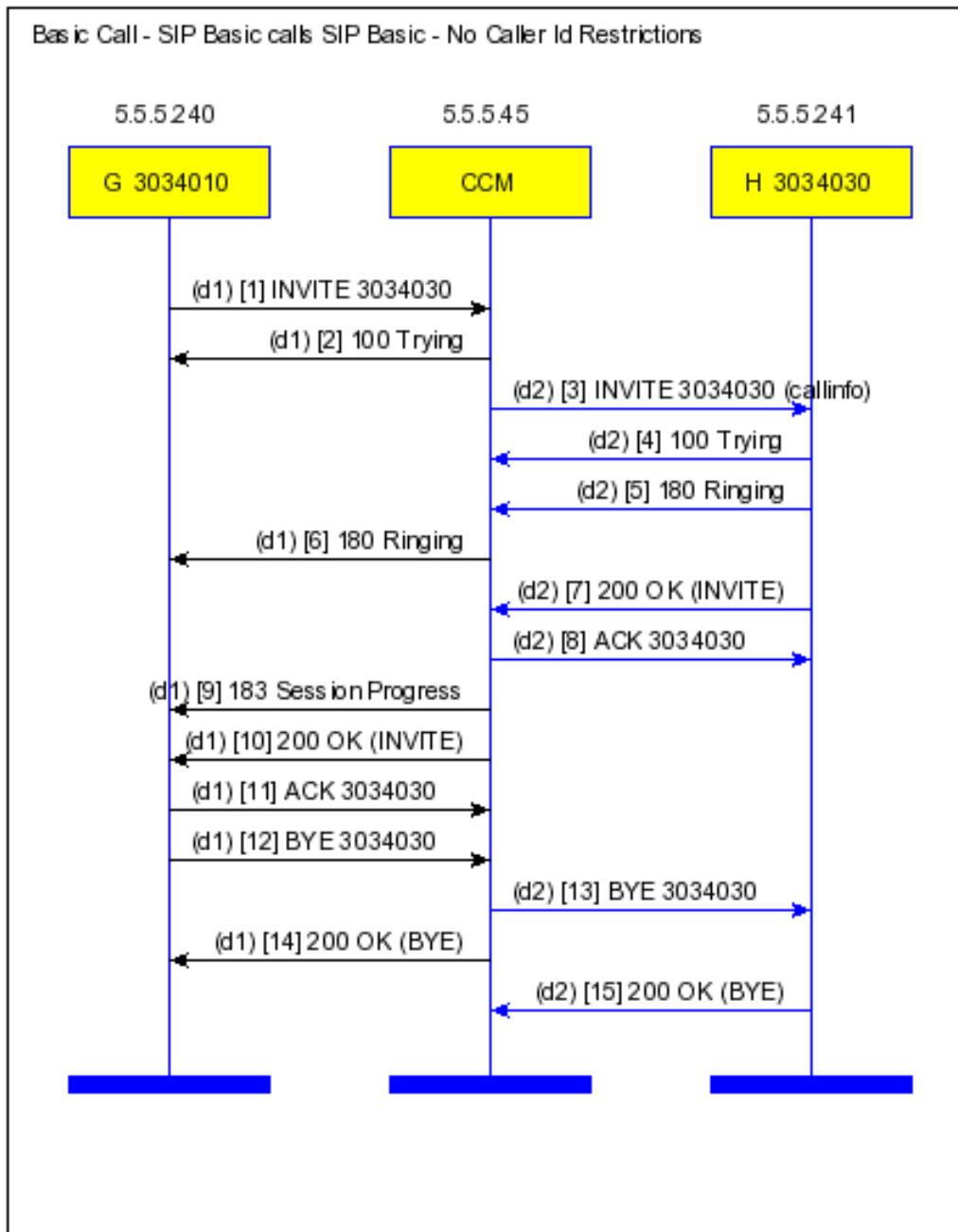
Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 answers

3034010 goes onhook



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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK41f93f94  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000941fe003e-7c639570  
 To: <sip:3034030@5.5.5.45>  
 Call-ID: 001a2f8d-f17f0007-1aa23ba4-45aecd8d@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:34:20 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 6402 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26640 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 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 5.5.5.240:5060;branch=z9hG4bK41f93f94  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000941fe003e-7c639570  
 To: <sip:3034030@5.5.5.45>  
 Date: Sat, 09 Dec 2006 17:34:21 GMT  
 Call-ID: 001a2f8d-f17f0007-1aa23ba4-45aecd8d@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKeed93925  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228512  
 To: <sip:3034030@5.5.5.241>  
 Date: Sat, 09 Dec 2006 17:34:21 GMT  
 Call-ID: 7fb91200-57a1f39d-1f-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKeed93925  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228512  
 To: <sip:3034030@5.5.5.241>  
 Call-ID: 7fb91200-57a1f39d-1f-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:34:20 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKeed93925  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228512  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600096dbfael1d-66d36b74  
Call-ID: 7fb91200-57a1f39d-1f-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:34:20 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK41f93f94  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000941fe003e-7c639570  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228511  
Date: Sat, 09 Dec 2006 17:34:21 GMT  
Call-ID: 001a2f8d-f17f0007-1aa23ba4-45aedc8d@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKeed93925  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228512  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600096dbfael1d-66d36b74  
Call-ID: 7fb91200-57a1f39d-1f-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:34:20 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 8601 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17384 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKf438ca80  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228512  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600096dbfael1d-66d36b74  
Date: Sat, 09 Dec 2006 17:34:21 GMT  
Call-ID: 7fb91200-57a1f39d-1f-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26640 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK41f93f94  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000941fe003e-7c639570  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228511  
 Date: Sat, 09 Dec 2006 17:34:21 GMT  
 Call-ID: 001a2f8d-f17f0007-1aa23ba4-45aedc8d@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17384 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 5.5.5.240:5060;branch=z9hG4bK41f93f94  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000941fe003e-7c639570  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228511  
 Date: Sat, 09 Dec 2006 17:34:21 GMT  
 Call-ID: 001a2f8d-f17f0007-1aa23ba4-45aedc8d@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17384 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:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3e9453df  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000941fe003e-7c639570  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228511  
 Call-ID: 001a2f8d-f17f0007-1aa23ba4-45aedc8d@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:34:22 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] BYE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0242a871  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000941fe003e-7c639570  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228511  
 Call-ID: 001a2f8d-f17f0007-1aa23ba4-45aedc8d@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:34:25 GMT  
 CSeq: 102 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

```
[diagram] Call-ID:[prev][next]
[13] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK10c31e512
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228512
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600096dbfaeld-66d36b74
Date: Sat, 09 Dec 2006 17:34:21 GMT
Call-ID: 7fb91200-57a1f39d-1f-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0242a871
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000941fe003e-7c639570
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228511
Date: Sat, 09 Dec 2006 17:34:25 GMT
Call-ID: 001a2f8d-f17f0007-1aa23ba4-45aedc8d@5.5.5.240
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[15] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK10c31e512
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228512
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600096dbfaeld-66d36b74
Call-ID: 7fb91200-57a1f39d-1f-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:34:24 GMT
CSeq: 102 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0
```

## 2.4 Basic Call - SIP Basic calls SIP Basic - Caller Id Restrictions

Title: Basic Call - SIP Basic calls SIP Basic - Caller Id Restrictions

Description:

A SIP Basic phone calls another SIP Basic phone. CallerId blocking restrictions configured in CCM Admin. User dial 71xxxx to activate CallId blocking. CCM strips "71" from dialed pattern.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

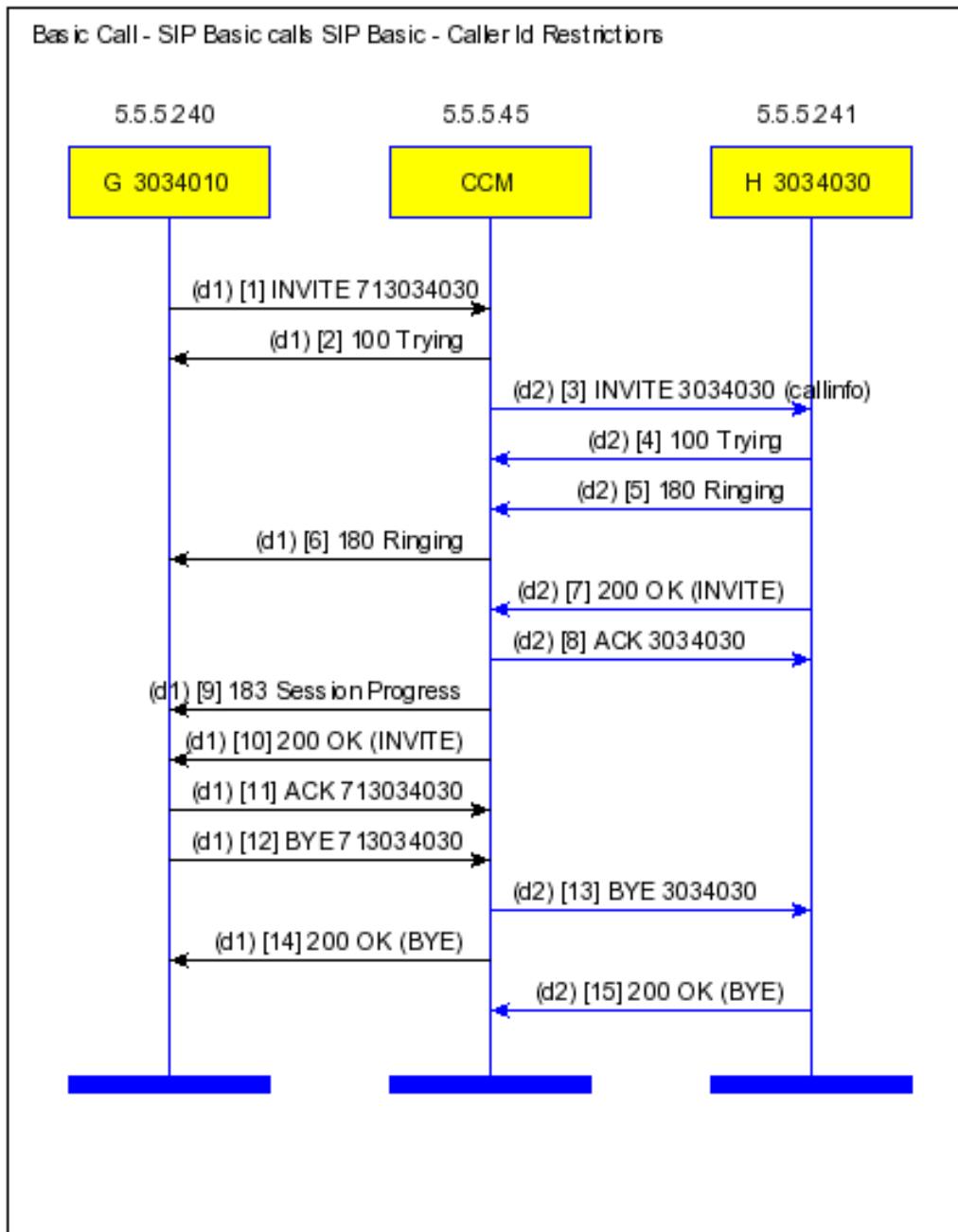
Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3034010 dials 713034030

3034030 answers

3034010 goes onhook



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

**[1] INVITE sip:713034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7b7c4236  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f001b3e9b48e8-77441114  
To: <sip:713034030@5.5.5.45>  
Call-ID: 001a2f8d-f17f0013-1461d06d-1f243107@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:49:28 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 25673 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26688 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7b7c4236  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f001b3e9b48e8-77441114  
To: <sip:713034030@5.5.5.45>  
Date: Sat, 09 Dec 2006 17:49:27 GMT  
Call-ID: 001a2f8d-f17f0013-1461d06d-1f243107@5.5.5.240  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2e19aee27c  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=full  
From: "Anonymous" <sip:anonymous@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228538  
To: <sip:3034030@5.5.5.241>  
Date: Sat, 09 Dec 2006 17:49:27 GMT  
Call-ID: 9bbdb300-57a1f727-4a-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034030@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2e19aee27c  
From: "Anonymous" <sip:anonymous@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228538  
To: <sip:3034030@5.5.5.241>  
Call-ID: 9bbdb300-57a1f727-4a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:49:27 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK2e19aee27c  
From: "Anonymous" <sip:anonymous@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228538  
To: <sip:3034030@5.5.241>;tag=001a2fc77d600190f199389-05e58d64  
Call-ID: 9bbdb300-57a1f727-4a-2d050505@5.5.45  
Date: Sat, 09 Dec 2006 17:49:27 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK7b7c4236  
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f001b3e9b48e8-77441114  
To: <sip:713034030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228537  
Date: Sat, 09 Dec 2006 17:49:27 GMT  
Call-ID: 001a2f8d-f17f0013-1461d06d-1f243107@5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:713034030@5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK2e19aee27c  
From: "Anonymous" <sip:anonymous@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228538  
To: <sip:3034030@5.5.241>;tag=001a2fc77d600190f199389-05e58d64  
Call-ID: 9bbdb300-57a1f727-4a-2d050505@5.5.45  
Date: Sat, 09 Dec 2006 17:49:31 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 27457 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17416 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK2f2c2aceee  
From: "Anonymous" <sip:anonymous@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228538  
To: <sip:3034030@5.5.241>;tag=001a2fc77d600190f199389-05e58d64  
Date: Sat, 09 Dec 2006 17:49:27 GMT  
Call-ID: 9bbdb300-57a1f727-4a-2d050505@5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26688 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7b7c4236  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f001b3e9b48e8-77441114  
 To: <sip:713034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228537  
 Date: Sat, 09 Dec 2006 17:49:27 GMT  
 Call-ID: 001a2f8d-f17f0013-1461d06d-1f243107@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:713034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17416 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 5.5.5.240:5060;branch=z9hG4bK7b7c4236  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f001b3e9b48e8-77441114  
 To: <sip:713034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228537  
 Date: Sat, 09 Dec 2006 17:49:27 GMT  
 Call-ID: 001a2f8d-f17f0013-1461d06d-1f243107@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:713034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17416 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:713034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK68caf473  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f001b3e9b48e8-77441114  
 To: <sip:713034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228537  
 Call-ID: 001a2f8d-f17f0013-1461d06d-1f243107@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:49:33 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] BYE sip:713034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK6dd6831e  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f001b3e9b48e8-77441114  
 To: <sip:713034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228537  
 Call-ID: 001a2f8d-f17f0013-1461d06d-1f243107@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:49:36 GMT  
 CSeq: 102 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

```
[diagram] Call-ID:[prev][next]
[13] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK3052cf4b85
From: "Anonymous" <sip:anonymous@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228538
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600190f199389-05e58d64
Date: Sat, 09 Dec 2006 17:49:27 GMT
Call-ID: 9bbdb300-57a1f727-4a-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK6dd6831e
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f001b3e9b48e8-77441114
To: <sip:713034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228537
Date: Sat, 09 Dec 2006 17:49:36 GMT
Call-ID: 001a2f8d-f17f0013-1461d06d-1f243107@5.5.5.240
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[15] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK3052cf4b85
From: "Anonymous" <sip:anonymous@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228538
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600190f199389-05e58d64
Call-ID: 9bbdb300-57a1f727-4a-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:49:35 GMT
CSeq: 102 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0
```

## 2.5 Calling and Connected Name ID - Different alerting/connected name

Title: Calling and Connected Name ID - Different alerting/connected name

Description:

A SIP Basic phone calls another SIP Basic phone. Alerting name differs from connected name.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

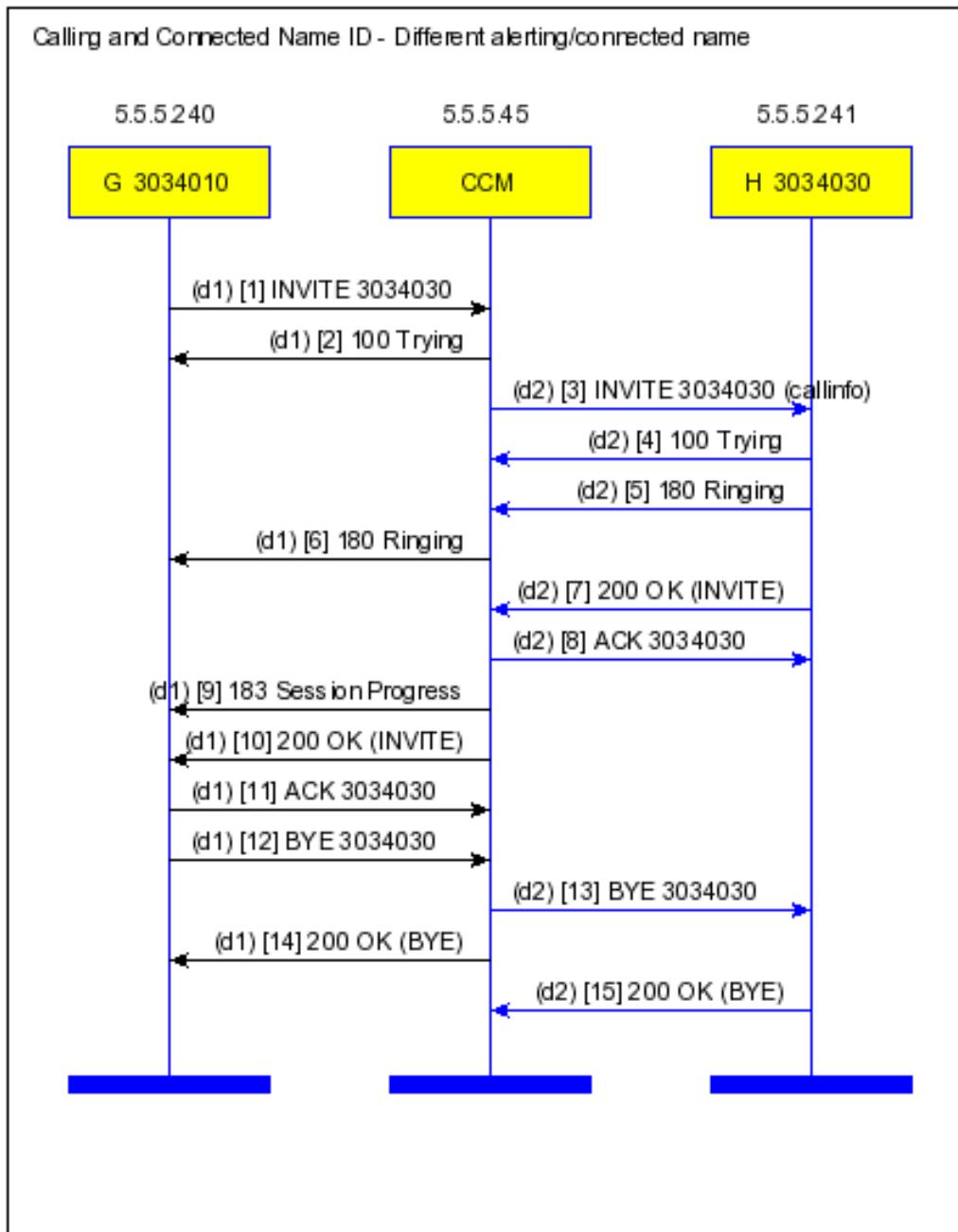
Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 answers

3034010 goes onhook



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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK18f532f9  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00574ee217ab-1e996341  
 To: <sip:3034030@5.5.5.45>  
 Call-ID: 001a2f8d-f17f0004-43b3f4a5-76e2f4e4@5.5.5.240  
 Max-Forwards: 70  
 Date: Thu, 25 Jan 2007 18:18:23 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 5603 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 16936 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 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 5.5.5.240:5060;branch=z9hG4bK18f532f9  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00574ee217ab-1e996341  
 To: <sip:3034030@5.5.5.45>  
 Date: Thu, 25 Jan 2007 18:18:23 GMT  
 Call-ID: 001a2f8d-f17f0004-43b3f4a5-76e2f4e4@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK34220cb3e08  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-31370695  
 To: <sip:3034030@5.5.5.241>  
 Date: Thu, 25 Jan 2007 18:18:23 GMT  
 Call-ID: 6fe48700-5b81f46f-c32-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK34220cb3e08  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-31370695  
 To: <sip:3034030@5.5.5.241>  
 Call-ID: 6fe48700-5b81f46f-c32-2d050505@5.5.5.45  
 Date: Thu, 25 Jan 2007 18:18:23 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[5] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK34220cb3e08  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370695  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6006d3a76c3ac-0a043ea5  
 Call-ID: 6fe48700-5b81f46f-c32-2d050505@5.5.5.45  
 Date: Thu, 25 Jan 2007 18:18:23 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[6] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK18f532f9  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00574ee217ab-1e996341  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370694  
 Date: Thu, 25 Jan 2007 18:18:23 GMT  
 Call-ID: 001a2f8d-f17f0004-43b3f4a5-76e2f4e4@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030 - Alerting" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[7] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK34220cb3e08  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370695  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6006d3a76c3ac-0a043ea5  
 Call-ID: 6fe48700-5b81f46f-c32-2d050505@5.5.5.45  
 Date: Thu, 25 Jan 2007 18:18:25 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 5000 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 16848 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

**[diagram] Call-ID:[prev][next]**  
**[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK34321441f42  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370695  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6006d3a76c3ac-0a043ea5  
 Date: Thu, 25 Jan 2007 18:18:23 GMT  
 Call-ID: 6fe48700-5b81f46f-c32-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 16936 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] SIP/2.0 183 Session Progress
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK18f532f9
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00574ee217ab-1e996341
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370694
Date: Thu, 25 Jan 2007 18:18:23 GMT
Call-ID: 001a2f8d-f17f0004-43b3f4a5-76e2f4e4@5.5.5.240
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030 - Alerting" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 16848 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 5.5.5.240:5060;branch=z9hG4bK18f532f9
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00574ee217ab-1e996341
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370694
Date: Thu, 25 Jan 2007 18:18:23 GMT
Call-ID: 001a2f8d-f17f0004-43b3f4a5-76e2f4e4@5.5.5.240
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 16848 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:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK46345987
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00574ee217ab-1e996341
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370694
Call-ID: 001a2f8d-f17f0004-43b3f4a5-76e2f4e4@5.5.5.240
Max-Forwards: 70
Date: Thu, 25 Jan 2007 18:18:26 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[12] BYE sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK134f3696
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00574ee217ab-1e996341
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370694
Call-ID: 001a2f8d-f17f0004-43b3f4a5-76e2f4e4@5.5.5.240
Max-Forwards: 70
Date: Thu, 25 Jan 2007 18:18:28 GMT
CSeq: 102 BYE
User-Agent: Cisco-CP7960G/7.5
Content-Length: 0
```

```
[diagram] Call-ID:[prev][next]
[13] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK34467b84976
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370695
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6006d3a76c3ac-0a043ea5
Date: Thu, 25 Jan 2007 18:18:23 GMT
Call-ID: 6fe48700-5b81f46f-c32-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK134f3696
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00574ee217ab-1e996341
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370694
Date: Thu, 25 Jan 2007 18:18:28 GMT
Call-ID: 001a2f8d-f17f0004-43b3f4a5-76e2f4e4@5.5.5.240
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[15] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK34467b84976
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-31370695
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6006d3a76c3ac-0a043ea5
Call-ID: 6fe48700-5b81f46f-c32-2d050505@5.5.5.45
Date: Thu, 25 Jan 2007 18:18:28 GMT
CSeq: 102 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0
```

## 2.6 Calling and Connected Name ID

Title: Calling and Connected Name ID

Description:

A SIP Basic phone calls another SIP Basic phone.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

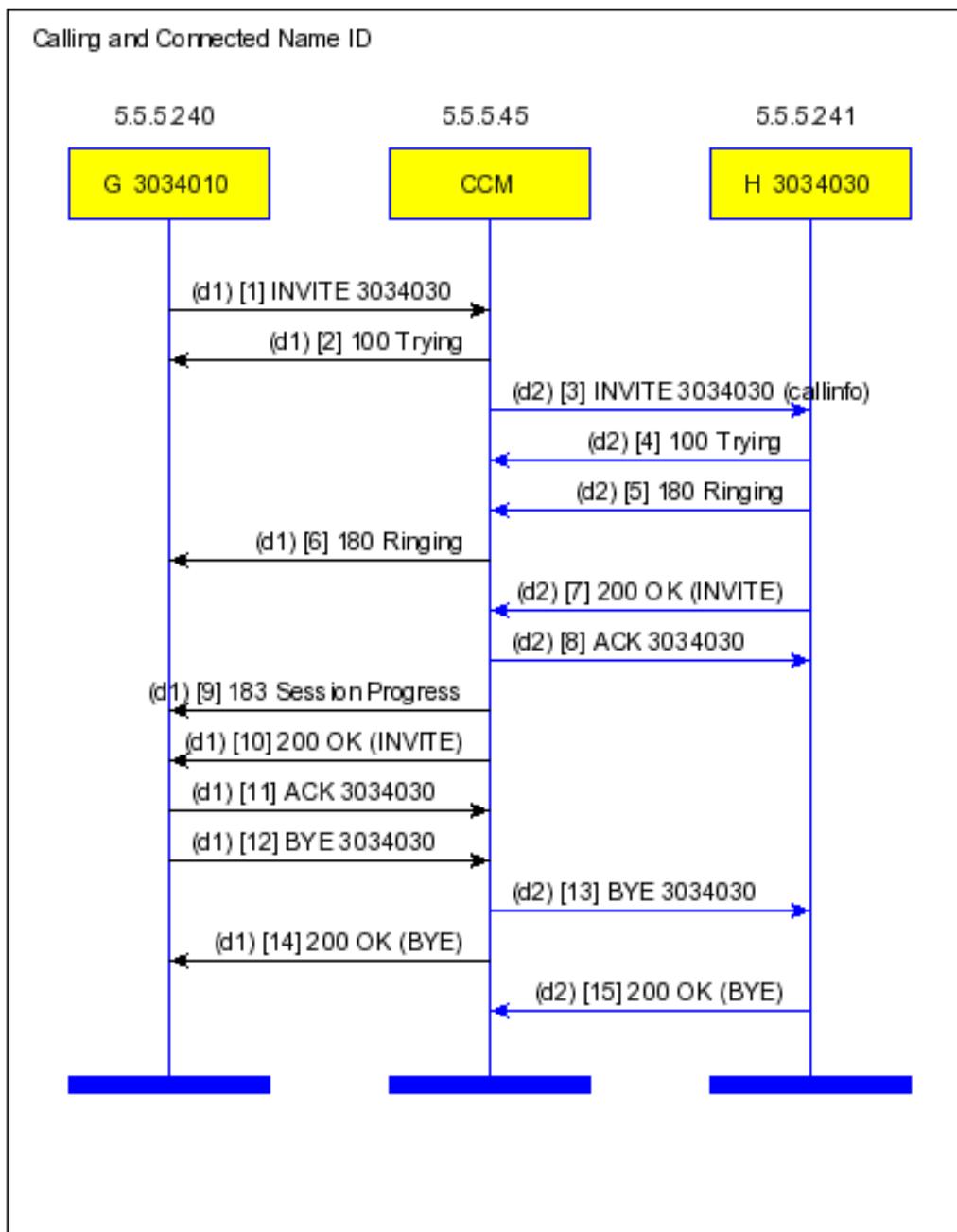
Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 answers

3034010 goes onhook



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

[1] **INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK22817f23  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00102b6f88c4-62e60ddf  
To: <sip:3034030@5.5.5.45>  
Call-ID: 001a2f8d-f17f000c-5c2ebaa2-1f9a6aef@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 16120 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26660 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

[2] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK22817f23  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00102b6f88c4-62e60ddf  
To: <sip:3034030@5.5.45>  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
Call-ID: 001a2f8d-f17f000c-5c2ebaa2-1f9a6aef@5.5.5.240  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

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

[3] **INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK16374a76b7  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228522  
To: <sip:3034030@5.5.241>  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
Call-ID: 695f8600-57a1f525-2e-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034030@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

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

[4] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK16374a76b7  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228522  
To: <sip:3034030@5.5.241>  
Call-ID: 695f8600-57a1f525-2e-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK16374a76b7  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228522  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6000f646d9390-1fd17e17  
Call-ID: 695f8600-57a1f525-2e-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK22817f23  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00102b6f88c4-62e60ddf  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228521  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
Call-ID: 001a2f8d-f17f000c-5c2ebaa2-1f9a6aef@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK16374a76b7  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228522  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6000f646d9390-1fd17e17  
Call-ID: 695f8600-57a1f525-2e-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:40:54 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 6394 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17400 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1751fd233d  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228522  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6000f646d9390-1fd17e17  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
Call-ID: 695f8600-57a1f525-2e-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26660 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] SIP/2.0 183 Session Progress**  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK22817f23  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00102b6f88c4-62e60ddf  
To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228521  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
Call-ID: 001a2f8d-f17f000c-5c2ebaa2-1f9a6aef@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.241  
t=0 0  
m=audio 17400 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 5.5.5.240:5060;branch=z9hG4bK22817f23  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00102b6f88c4-62e60ddf  
To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228521  
Date: Sat, 09 Dec 2006 17:40:53 GMT  
Call-ID: 001a2f8d-f17f000c-5c2ebaa2-1f9a6aef@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Supported: replaces  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.241  
t=0 0  
m=audio 17400 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:3034030@5.5.5.45:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK585ec624  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00102b6f88c4-62e60ddf  
To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228521  
Call-ID: 001a2f8d-f17f000c-5c2ebaa2-1f9a6aef@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:40:55 GMT  
CSeq: 101 ACK  
User-Agent: Cisco-CP7960G/7.5  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] BYE sip:3034030@5.5.5.45:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1972a33b  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00102b6f88c4-62e60ddf  
To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228521  
Call-ID: 001a2f8d-f17f000c-5c2ebaa2-1f9a6aef@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:40:59 GMT  
CSeq: 102 BYE  
User-Agent: Cisco-CP7960G/7.5  
Content-Length: 0

```
[diagram] Call-ID:[prev][next]
[13] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK18724eed27
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228522
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6000f646d9390-1fd17e17
Date: Sat, 09 Dec 2006 17:40:53 GMT
Call-ID: 695f8600-57a1f525-2e-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1972a33b
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00102b6f88c4-62e60ddf
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228521
Date: Sat, 09 Dec 2006 17:40:59 GMT
Call-ID: 001a2f8d-f17f000c-5c2ebaa2-1f9a6aef@5.5.5.240
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[15] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK18724eed27
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228522
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6000f646d9390-1fd17e17
Call-ID: 695f8600-57a1f525-2e-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:40:58 GMT
CSeq: 102 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0
```

## 2.7 Multiple Lines Per Phone

Title: Multiple Lines Per Phone

Description:

Line 1 on G calls L. While G is still talking to L on line 1, G initiates a call to H using line 2.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010-3034011, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3034010 calls 3034040

3034040 answers

3034010 presses hold

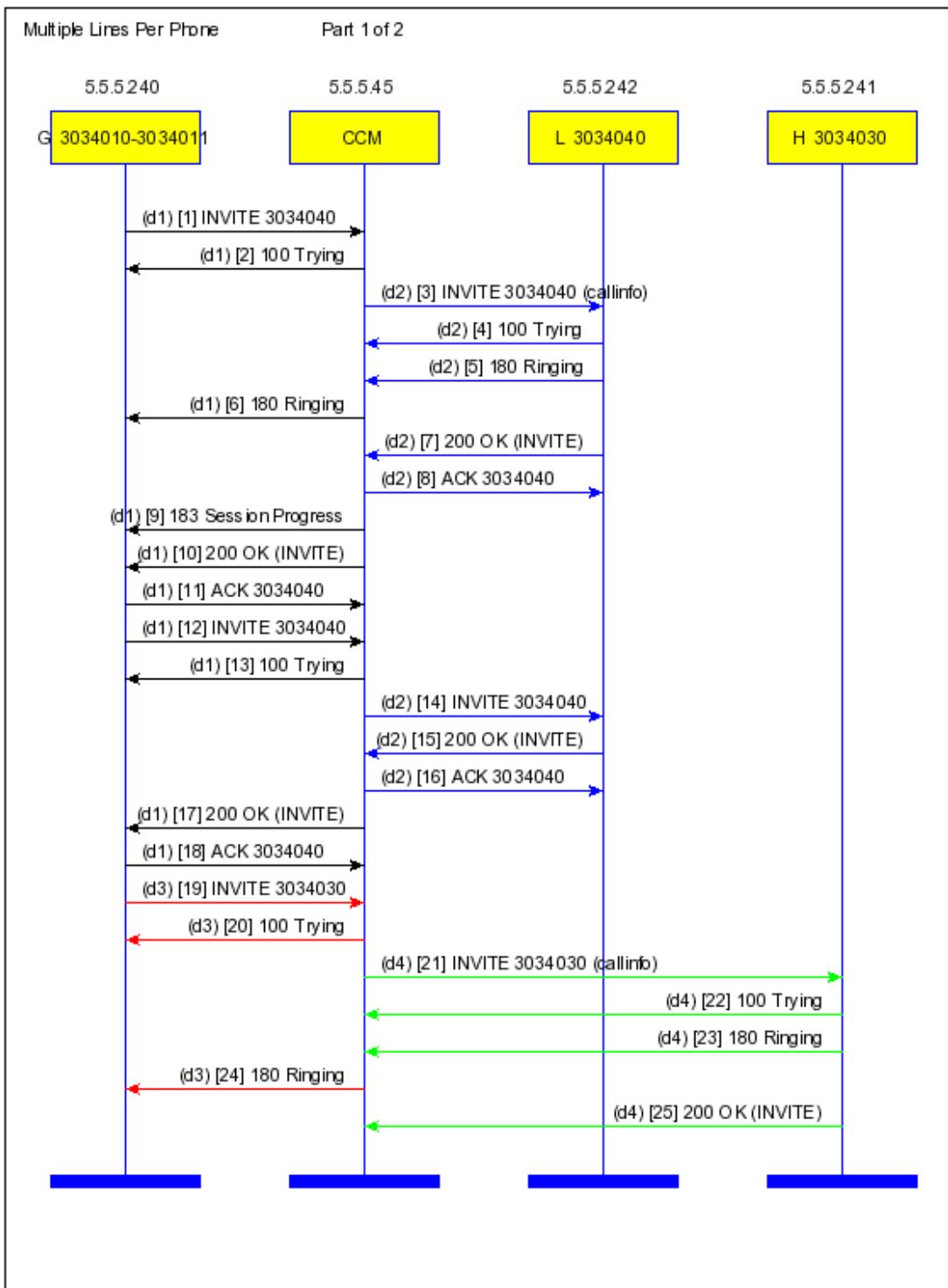
3034011 calls 3034030

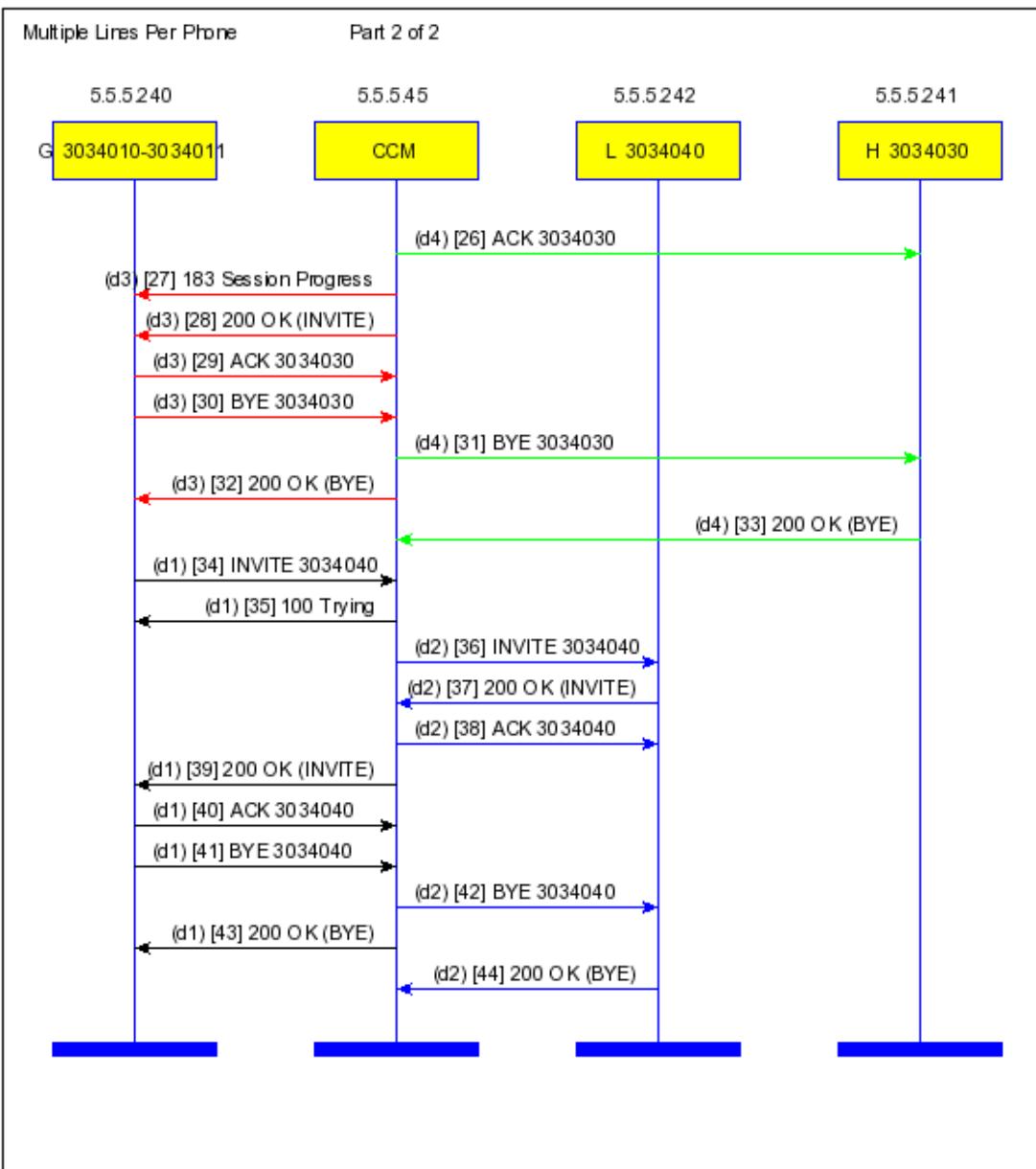
3034030 answers

3034011 ends calls with 3034030

3034010 resumes call with 3034040

3034010 ends call with 3034040





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

**[1] INVITE sip:3034040@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23262221  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
To: <sip:3034040@5.5.5.45>  
Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:43:46 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 8158 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26672 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23262221  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
To: <sip:3034040@5.5.5.45>  
Date: Sat, 09 Dec 2006 17:43:45 GMT  
Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

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

**[3] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK19543e41c3  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228528  
To: <sip:3034040@5.5.5.242>  
Date: Sat, 09 Dec 2006 17:43:45 GMT  
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034040@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK19543e41c3  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228528  
To: <sip:3034040@5.5.5.242>  
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:43:46 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK19543e41c3  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67  
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:43:46 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23262221  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dc8-1244ba5d  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527  
Date: Sat, 09 Dec 2006 17:43:45 GMT  
Call-ID: 001a2f8d-f17f000f-163e66e0-0cdd1ab@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034040@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK19543e41c3  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67  
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:43:48 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 247  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 577 0 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28486 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1a18f0c6e4  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67  
Date: Sat, 09 Dec 2006 17:43:45 GMT  
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26672 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23262221  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228527  
 Date: Sat, 09 Dec 2006 17:43:45 GMT  
 Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 28486 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 5.5.5.240:5060;branch=z9hG4bK23262221  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228527  
 Date: Sat, 09 Dec 2006 17:43:45 GMT  
 Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 28486 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:3034040@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK2873d3c8  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228527  
 Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:43:48 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] INVITE sip:3034040@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK2545ea78  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228527  
 Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:43:54 GMT  
 CSeq: 102 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 8158 1 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26672 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendonly

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

[13] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK2545ea78  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527  
 Date: Sat, 09 Dec 2006 17:43:54 GMT  
 Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
 CSeq: 102 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[14] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1b25924a74  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67  
 Date: Sat, 09 Dec 2006 17:43:54 GMT  
 Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 291

v=0  
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26672 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]

[15] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1b25924a74  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67  
 Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:43:55 GMT  
 CSeq: 102 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 197  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```

v=0
o=Cisco-SIPUA 577 1 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28486 RTP/AVP 0 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=recvonly

[diagram] Call-ID:[prev][next]
[16] ACK sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1c27bead8e
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528
To: <sip:3034040@5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67
Date: Sat, 09 Dec 2006 17:43:54 GMT
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45
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 5.5.5.240:5060;branch=z9hG4bK2545ea78
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcba5d
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527
Date: Sat, 09 Dec 2006 17:43:54 GMT
Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034040@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 217

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
t=0 0
m=audio 28486 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]
[18] ACK sip:3034040@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK239d311e
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcba5d
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527
Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:43:55 GMT
CSeq: 102 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[19] INVITE sip:3034030@5.5.5.45 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK5f8a5e16
From: "3034011" <sip:3034011@5.5.5.45>;tag=001a2f8df17f00175e90f3ce-5a9c92e5
To: <sip:3034030@5.5.5.45>
Call-ID: 001a2f8d-f17f0010-712829ad-06991888@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:44:11 GMT
CSeq: 101 INVITE
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034011@5.5.5.240:5060>
Expires: 180
Accept: application/sdp
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034011" <sip:3034011@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

```

Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 18756 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26676 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15  
a=sendrecv

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

[20] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK5f8a5e16  
From: "3034011" <sip:3034011@5.5.5.45>;tag=001a2f8df17f00175e90f3ce-5a9c92e5  
To: <sip:3034030@5.5.45>  
Date: Sat, 09 Dec 2006 17:44:11 GMT  
Call-ID: 001a2f8d-f17f0010-712829ad-06991888@5.5.5.240  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

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

[21] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1d70c981a5  
Remote-Party-ID: "SIP Basic 3034011" <sip:3034011@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034011" <sip:3034011@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228530  
To: <sip:3034030@5.5.5.241>  
Date: Sat, 09 Dec 2006 17:44:11 GMT  
Call-ID: df63ed00-57a1f5eb-3e-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034030@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

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

[22] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1d70c981a5  
From: "SIP Basic 3034011" <sip:3034011@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228530  
To: <sip:3034030@5.5.5.241>  
Call-ID: df63ed00-57a1f5eb-3e-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:44:11 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

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

[23] SIP/2.0 180 Ringing

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1d70c981a5  
From: "SIP Basic 3034011" <sip:3034011@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228530  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6001557f4ab83-5a165973  
Call-ID: df63ed00-57a1f5eb-3e-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:44:11 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

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

[24] SIP/2.0 180 Ringing

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK5f8a5e16  
 From: "3034011" <sip:3034011@5.5.5.45>;tag=001a2f8df17f00175e90f3ce-5a9c92e5  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228529  
 Date: Sat, 09 Dec 2006 17:44:11 GMT  
 Call-ID: 001a2f8d-f17f0010-712829ad-06991888@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Length: 0

**[diagram] Call-ID: [prev][next]**  
**[25] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1d70c981a5  
 From: "SIP Basic 3034011" <sip:3034011@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228530  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6001557f4ab83-5a165973  
 Call-ID: df63ed00-57a1f5eb-3e-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:44:13 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 13034 0 IN IP4 5.5.5.241  
 s=SIP Call  
 t=0 0  
 m=audio 17404 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.241  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram] Call-ID: [prev][next]**  
**[26] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1e2e198152  
 From: "SIP Basic 3034011" <sip:3034011@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228530  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6001557f4ab83-5a165973  
 Date: Sat, 09 Dec 2006 17:44:11 GMT  
 Call-ID: df63ed00-57a1f5eb-3e-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26676 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]**  
**[27] SIP/2.0 183 Session Progress**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK5f8a5e16  
 From: "3034011" <sip:3034011@5.5.5.45>;tag=001a2f8df17f00175e90f3ce-5a9c92e5  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228529  
 Date: Sat, 09 Dec 2006 17:44:11 GMT  
 Call-ID: 001a2f8d-f17f0010-712829ad-06991888@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17404 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15

[diagram] Call-ID:[prev][next]
[28] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK5f8a5e16
From: "3034011" <sip:3034011@5.5.5.45>;tag=001a2f8df17f00175e90f3ce-5a9c92e5
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228529
Date: Sat, 09 Dec 2006 17:44:11 GMT
Call-ID: 001a2f8d-f17f0010-712829ad-06991888@5.5.5.240
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17404 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15

[diagram] Call-ID:[prev][next]
[29] ACK sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK21e4750e
From: "3034011" <sip:3034011@5.5.5.45>;tag=001a2f8df17f00175e90f3ce-5a9c92e5
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228529
Call-ID: 001a2f8d-f17f0010-712829ad-06991888@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:44:15 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034011" <sip:3034011@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[30] BYE sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK28516577
From: "3034011" <sip:3034011@5.5.5.45>;tag=001a2f8df17f00175e90f3ce-5a9c92e5
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228529
Call-ID: 001a2f8d-f17f0010-712829ad-06991888@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:44:19 GMT
CSeq: 102 BYE
User-Agent: Cisco-CP7960G/7.5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[31] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1f15cf6e28
From: "SIP Basic 3034011" <sip:3034011@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228530
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6001557f4ab83-5a165973
Date: Sat, 09 Dec 2006 17:44:11 GMT
Call-ID: df63ed00-57a1f5eb-3e-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[32] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK28516577
From: "3034011" <sip:3034011@5.5.5.45>;tag=001a2f8df17f00175e90f3ce-5a9c92e5

```

To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228529  
 Date: Sat, 09 Dec 2006 17:44:19 GMT  
 Call-ID: 001a2f8d-f17f0010-712829ad-06991888@5.5.5.240  
 CSeq: 102 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [33] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1f15cf6e28  
 From: "SIP Basic 3034011" <sip:3034011@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228530  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6001557f4ab83-5a165973  
 Call-ID: df63ed00-57a1f5eb-3e-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:44:18 GMT  
 CSeq: 102 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [34] INVITE sip:3034040@5.5.5.45:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK00c9ed4e  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcba-1244ba5d  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527  
 Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:44:22 GMT  
 CSeq: 103 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 8158 2 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26672 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
 [35] SIP/2.0 100 Trying  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK00c9ed4e  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcba-1244ba5d  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527  
 Date: Sat, 09 Dec 2006 17:44:21 GMT  
 Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
 CSeq: 103 INVITE  
 Allow-Events: presence  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [36] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK206486f74c  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67  
 Date: Sat, 09 Dec 2006 17:44:21 GMT  
 Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 103 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 279

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
```

```
c=IN IP4 5.5.5.240
t=0 0
m=audio 26672 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]

**[37] SIP/2.0 200 OK**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK206486f74c
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528
To: <sip:3034040@5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:44:22 GMT
CSeq: 103 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 197
Content-Type: application/sdp
Content-Disposition: session;handling=optional
```

```
v=0
o=Cisco-SIPUA 577 2 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28486 RTP/AVP 0 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

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

**[38] ACK sip:3034040@5.5.5.242:5060 SIP/2.0**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2128da0fdd
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528
To: <sip:3034040@5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67
Date: Sat, 09 Dec 2006 17:44:21 GMT
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence
Content-Length: 0
```

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

**[39] SIP/2.0 200 OK**

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK00c9ed4e
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcba5d
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527
Date: Sat, 09 Dec 2006 17:44:21 GMT
Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034040@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 205
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
t=0 0
m=audio 28486 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]  
[40] ACK sip:3034040@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK2b05dd74  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527  
Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:44:22 GMT  
CSeq: 103 ACK  
User-Agent: Cisco-CP7960G/7.5  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[41] BYE sip:3034040@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK41ef3515  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527  
Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:44:29 GMT  
CSeq: 104 BYE  
User-Agent: Cisco-CP7960G/7.5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[42] BYE sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2264fb03d6  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67  
Date: Sat, 09 Dec 2006 17:44:21 GMT  
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 104 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[43] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK41ef3515  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00155c8b8dcb-1244ba5d  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228527  
Date: Sat, 09 Dec 2006 17:44:29 GMT  
Call-ID: 001a2f8d-f17f000f-163e66e0-0cddalab@5.5.5.240  
CSeq: 104 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[44] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2264fb03d6  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228528  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000a02fb8d05-2db2fa67  
Call-ID: cfe4a400-57a1f5d1-3a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:44:30 GMT  
CSeq: 104 BYE  
Server: Cisco-CP7960G/7.5  
Content-Length: 0

## 2.8 Multiple Calls Per Line

Title: Multiple Calls Per Line

Description:

G calls L. While G is still talking to L, H calls G.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3034010 calls 3034040

3034040 answers

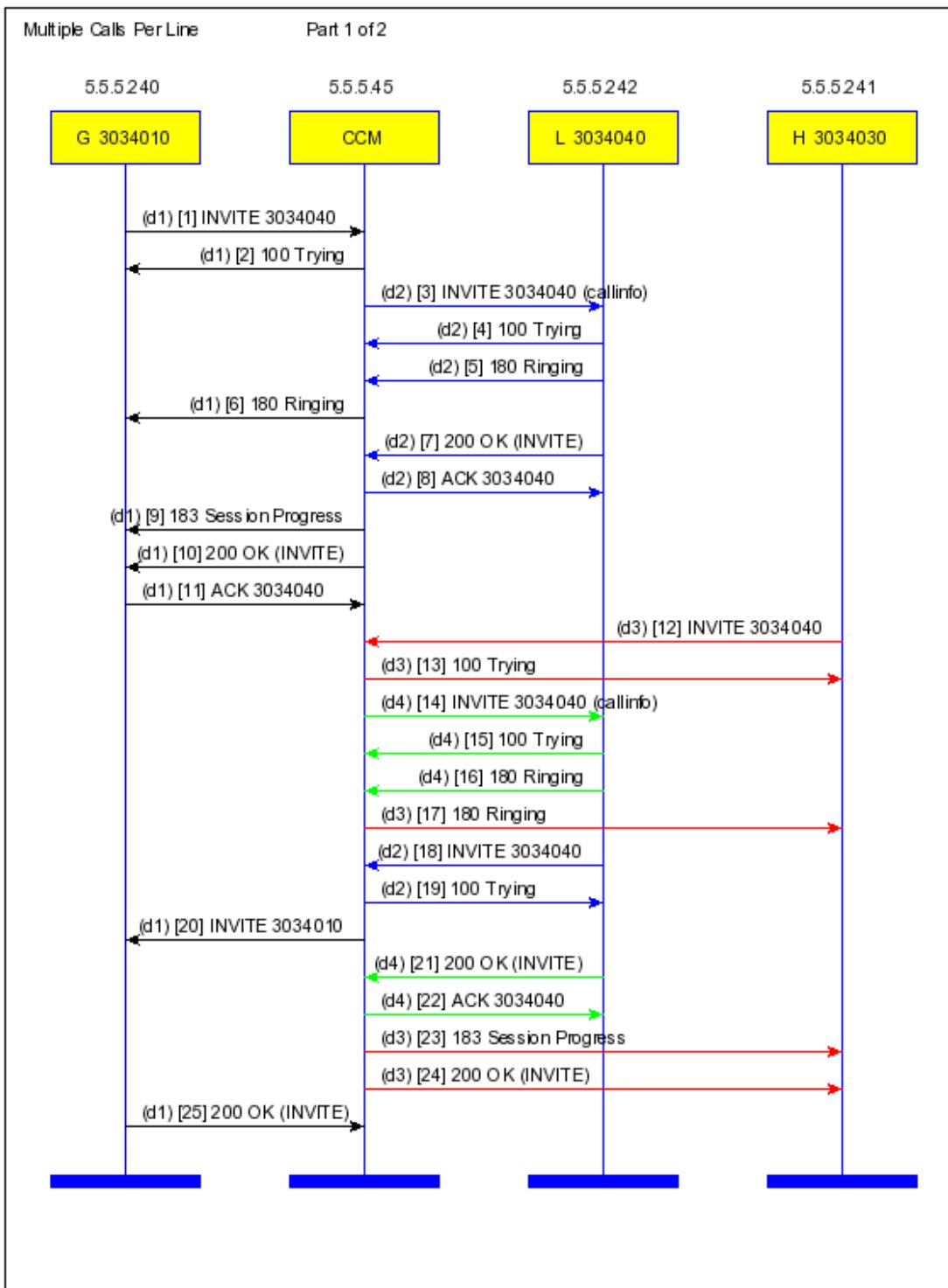
3034030 calls 3034040

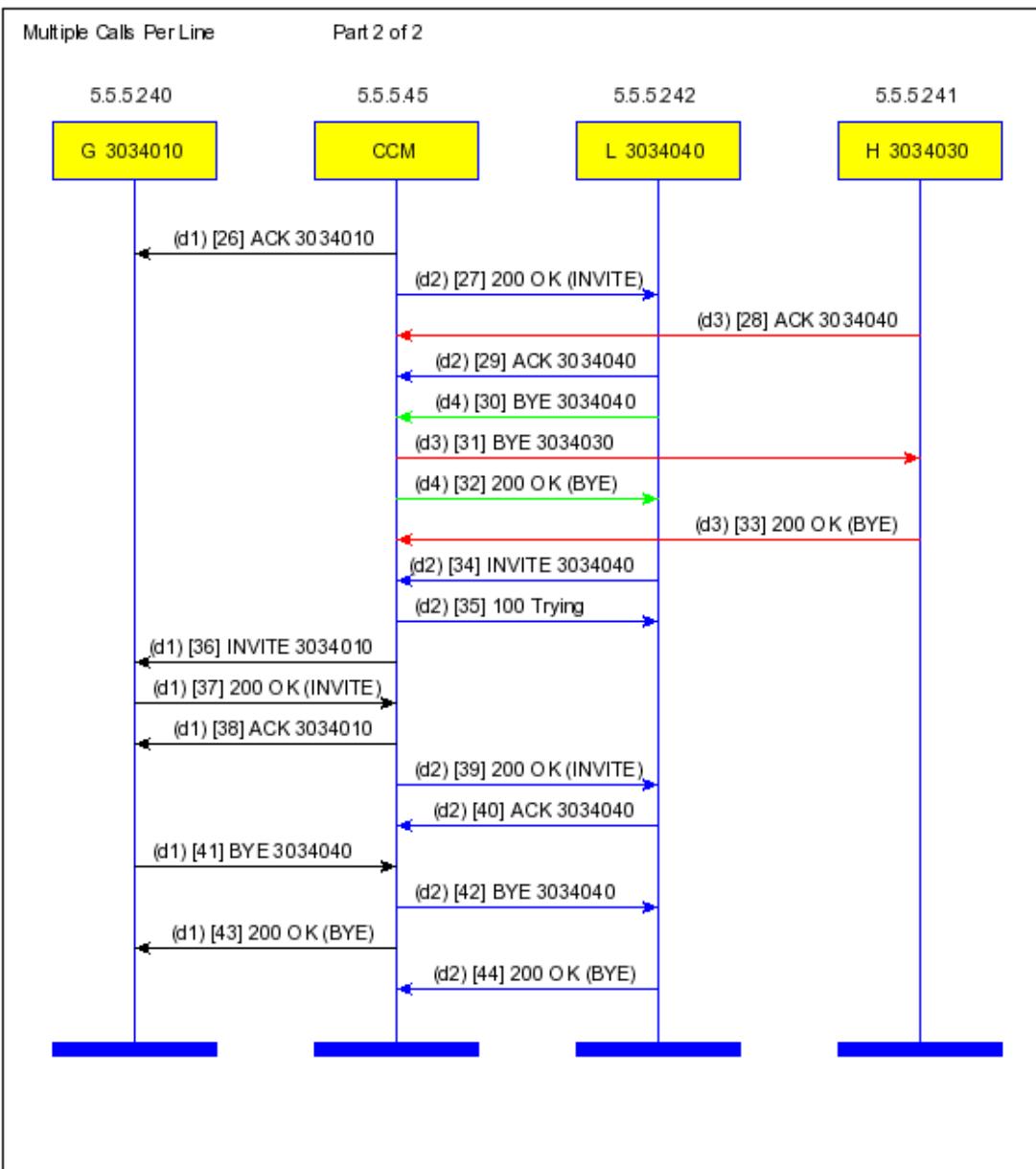
3034040 answers

3034040 ends call from 3034030

3034040 resumes call with 3034010

3034010 ends call with 3034040





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

[1] **INVITE sip:3034040@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK00569909  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
 To: <sip:3034040@5.5.5.45>  
 Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:45:14 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 17111 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26680 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 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 5.5.5.240:5060;branch=z9hG4bK00569909  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
 To: <sip:3034040@5.5.45>  
 Date: Sat, 09 Dec 2006 17:45:13 GMT  
 Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[3] **INVITE sip:3034040@5.5.5.242:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK233f0347b8  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228532  
 To: <sip:3034040@5.5.5.242>  
 Date: Sat, 09 Dec 2006 17:45:13 GMT  
 Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

[4] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK233f0347b8  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228532  
 To: <sip:3034040@5.5.5.242>  
 Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:45:14 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK233f0347b8  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:45:14 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK00569909  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531  
Date: Sat, 09 Dec 2006 17:45:13 GMT  
Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034040@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK233f0347b8  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:45:16 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 23559 0 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28490 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK247d794cd  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
Date: Sat, 09 Dec 2006 17:45:13 GMT  
Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26680 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK00569909  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228531  
 Date: Sat, 09 Dec 2006 17:45:13 GMT  
 Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 28490 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 5.5.5.240:5060;branch=z9hG4bK00569909  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228531  
 Date: Sat, 09 Dec 2006 17:45:13 GMT  
 Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 28490 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:3034040@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK6475a684  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228531  
 Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:45:16 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] INVITE sip:3034040@5.5.5.45 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK5d02a590  
 From: "3034030" <sip:3034030@5.5.5.45>;tag=001a2fc77d6001624f011e7-22c5faea  
 To: <sip:3034040@5.5.5.45>  
 Call-ID: 001a2fc77d60006-09d34619-028a80c9@5.5.5.241  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:45:35 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Expires: 180

```

Accept: application/sdp
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 23986 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17408 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[13] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK5d02a590
From: "3034030" <sip:3034030@5.5.5.45>;tag=001a2fc77d6001624f011e7-22c5faea
To: <sip:3034040@5.5.5.45>
Date: Sat, 09 Dec 2006 17:45:36 GMT
Call-ID: 001a2fc77d60006-09d34619-028a80c9@5.5.5.241
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK25519a317c
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228534
To: <sip:3034040@5.5.5.242>
Date: Sat, 09 Dec 2006 17:45:36 GMT
Call-ID: 120de580-57a1f640-43-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
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; call-instance= 2
Alert-Info: <file://Bellcore-drl1/>
Contact: <sip:3034040@5.5.5.45:5060>
Max-Forwards: 69
Content-Length: 0

[diagram] Call-ID:[prev][next]
[15] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK25519a317c
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228534
To: <sip:3034040@5.5.5.242>
Call-ID: 120de580-57a1f640-43-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:45:37 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[16] SIP/2.0 180 Ringing
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK25519a317c
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228534
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000d42bca8a7-339c9e9c
Call-ID: 120de580-57a1f640-43-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:45:37 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

```

**[diagram] Call-ID:[prev][next]**  
**[17] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK5d02a590  
From: "3034030" <sip:3034030@5.5.5.45>;tag=001a2fcbb77d6001624f011e7-22c5faea  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228533  
Date: Sat, 09 Dec 2006 17:45:36 GMT  
Call-ID: 001a2fcbb77d60006-09d34619-028a80c9@5.5.5.241  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034040@5.5.5.45:5060>  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[18] INVITE sip:3034040@5.5.5.45:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK1f731093  
From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:45:43 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 23559 1 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28490 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendonly
```

**[diagram] Call-ID:[prev][next]**  
**[19] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK1f731093  
From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
Date: Sat, 09 Dec 2006 17:45:42 GMT  
Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[20] INVITE sip:3034010@5.5.5.240:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2614f0a8aa  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531  
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
Date: Sat, 09 Dec 2006 17:45:42 GMT  
Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
Supported: timer,replaces  
Min-SE: 1800  
Cisco-Guid: 72900608-1470232105-64-755303685  
User-Agent: Cisco-CCM5.1  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
CSeq: 101 INVITE  
Max-Forwards: 70  
Contact: <sip:3034040@5.5.5.45:5060>  
Expires: 180  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 291

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
```

```
t=0 0
m=audio 28490 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=fmtcp:101 0-15
```

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

**[21] SIP/2.0 200 OK**

```
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK25519a317c
From: "SIP Basic 3034030" <sip:3034030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228534
To: <sip:3034040@5.5.242>;tag=0018b93bb53e000d42bca8a7-339c9e9c
Call-ID: 120de580-57a1f640-43-2d050505@5.5.45
Date: Sat, 09 Dec 2006 17:45:43 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 248
Content-Type: application/sdp
Content-Disposition: session;handling=optional
```

```
v=0
o=Cisco-SIPUA 2265 0 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28494 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtcp:101 0-15
a=sendrecv
```

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

**[22] ACK sip:3034040@5.5.242:5060 SIP/2.0**

```
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK27c552d2
From: "SIP Basic 3034030" <sip:3034030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228534
To: <sip:3034040@5.5.242>;tag=0018b93bb53e000d42bca8a7-339c9e9c
Date: Sat, 09 Dec 2006 17:45:36 GMT
Call-ID: 120de580-57a1f640-43-2d050505@5.5.45
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 205
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17408 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtcp:101 0-15
```

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

**[23] SIP/2.0 183 Session Progress**

```
Via: SIP/2.0/UDP 5.5.241:5060;branch=z9hG4bK5d02a590
From: "3034030" <sip:3034030@5.5.45>;tag=001a2fcbb77d6001624f011e7-22c5faea
To: <sip:3034040@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228533
Date: Sat, 09 Dec 2006 17:45:36 GMT
Call-ID: 001a2fcbb77d60006-09d34619-028a80c9@5.5.241
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034040@5.5.45:5060>
Content-Type: application/sdp
Content-Length: 205
```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
t=0 0
m=audio 28494 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]
[24] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK5d02a590
From: "3034030" <sip:3034030@5.5.5.45>;tag=001a2fcb77d6001624f011e7-22c5faea
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228533
Date: Sat, 09 Dec 2006 17:45:36 GMT
Call-ID: 001a2fcb-77d60006-09d34619-028a80c9@5.5.5.241
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034040@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
t=0 0
m=audio 28494 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]
[25] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2614f0a8aa
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4
Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240
Date: Sat, 09 Dec 2006 17:45:43 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 199
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 17111 1 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26680 RTP/AVP 0 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=recvonly

[diagram] Call-ID:[prev][next]
[26] ACK sip:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2871ffffccb
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4
Date: Sat, 09 Dec 2006 17:45:42 GMT
Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Length: 0

```

```
[diagram] Call-ID:[prev][next]
[27] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK1f731093
From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532
Date: Sat, 09 Dec 2006 17:45:42 GMT
Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034040@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 217

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26680 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]
[28] ACK sip:3034040@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK4402fc06
From: "3034030" <sip:3034030@5.5.5.45>;tag=001a2fc77d6001624f011e7-22c5faea
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228533
Call-ID: 001a2fc77d60006-09d34619-028a80c9@5.5.5.241
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:45:42 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[29] ACK sip:3034040@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK56357231
From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532
Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:45:43 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[30] BYE sip:3034040@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK33e6525d
From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000d42bca8a7-339c9e9c
To: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228534
Call-ID: 120de580-57alf640-43-2d050505@5.5.5.45
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:45:50 GMT
CSeq: 101 BYE
User-Agent: Cisco-CP7960G/7.5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[31] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK29511dccb6
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228533
To: "3034030" <sip:3034030@5.5.5.45>;tag=001a2fc77d6001624f011e7-22c5faea
Date: Sat, 09 Dec 2006 17:45:42 GMT
Call-ID: 001a2fc77d60006-09d34619-028a80c9@5.5.5.241
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 101 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[32] SIP/2.0 200 OK
```

Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK33e6525d  
 From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000d42bca8a7-339c9e9c  
 To: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228534  
 Date: Sat, 09 Dec 2006 17:45:50 GMT  
 Call-ID: 120de580-57alf640-43-2d050505@5.5.5.45  
 CSeq: 101 BYE  
 Content-Length: 0

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

[33] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK29511dccb6  
 From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228533  
 To: "3034030" <sip:3034030@5.5.5.45>;tag=001a2fcb77d6001624f011e7-22c5faea  
 Call-ID: 001a2fcb-77d60006-09d34619-028a80c9@5.5.5.241  
 Date: Sat, 09 Dec 2006 17:45:49 GMT  
 CSeq: 101 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

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

[34] INVITE sip:3034040@5.5.5.45:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK3efc495b  
 From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
 To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
 Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:45:53 GMT  
 CSeq: 102 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 23559 2 IN IP4 5.5.5.242  
 s=SIP Call  
 t=0 0  
 m=audio 28490 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.242  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

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

[35] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK3efc495b  
 From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
 To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
 Date: Sat, 09 Dec 2006 17:45:52 GMT  
 Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
 CSeq: 102 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[36] INVITE sip:3034010@5.5.5.240:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2a286a3219  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
 Date: Sat, 09 Dec 2006 17:45:52 GMT  
 Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
 Supported: timer,replaces  
 Min-SE: 1800  
 Cisco-Guid: 72900608-1470232105-64-755303685  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 279

```

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
t=0 0
m=audio 28490 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]
[37] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2a286a3219
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4
Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240
Date: Sat, 09 Dec 2006 17:45:53 GMT
CSeq: 102 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 199
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 17111 2 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26680 RTP/AVP 0 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[38] ACK sip:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2b2dbfb94d
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4
Date: Sat, 09 Dec 2006 17:45:52 GMT
Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[39] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK3efc495b
From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532
Date: Sat, 09 Dec 2006 17:45:52 GMT
Call-ID: 4586000-57a1f629-41-2d050505@5.5.5.45
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034040@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26680 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]  
**[40] ACK sip:3034040@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK5543822a  
 From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
 To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
 Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:45:53 GMT  
 CSeq: 102 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[41] BYE sip:3034040@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3b5d92ae  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531  
 Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:45:59 GMT  
 CSeq: 102 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[42] BYE sip:3034040@5.5.5.242:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2c47ee1bf5  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
 Date: Sat, 09 Dec 2006 17:45:52 GMT  
 Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 102 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[43] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3b5d92ae  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00180f0d699e-05ee19d4  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228531  
 Date: Sat, 09 Dec 2006 17:45:59 GMT  
 Call-ID: 001a2f8d-f17f0011-3efb8f2e-6885858c@5.5.5.240  
 CSeq: 102 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[44] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK2c47ee1bf5  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228532  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000c14542607-595da351  
 Call-ID: 4586000-57alf629-41-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:45:59 GMT  
 CSeq: 102 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

## 2.9 Basic Call - SIP Basic calls SIP Basic

Title: Basic Call - SIP Basic calls SIP Basic

Description:

A SIP Basic phone calls another SIP Basic phone but the target phone goes onhook cancelling the call.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

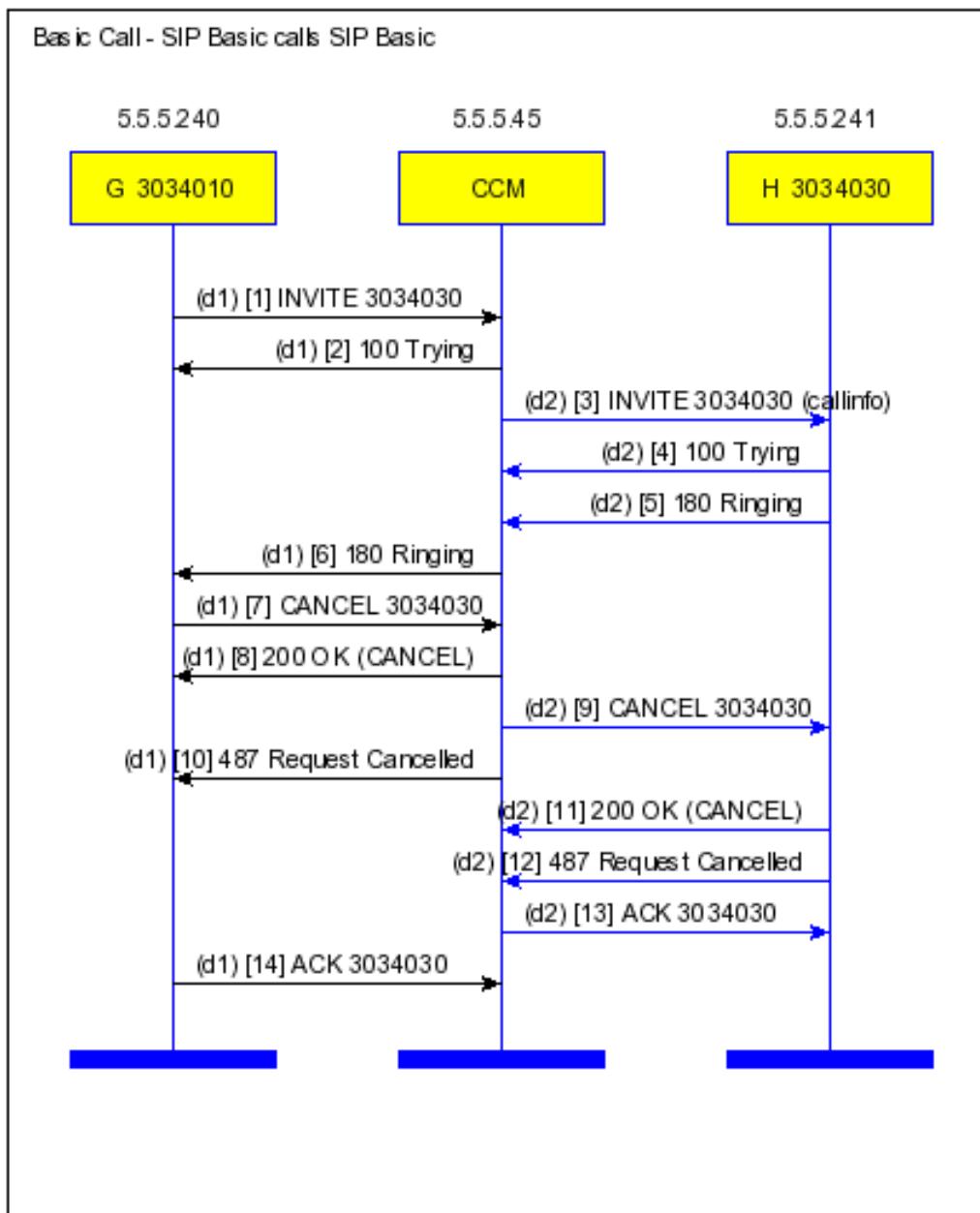
Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 does not answer

3034010 goes onhook



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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0026fd58  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000c2b2c719a-2750e44e  
To: <sip:3034030@5.5.5.45>  
Call-ID: 001a2f8d-f17f0009-412b47b6-61ffdf04@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:37:48 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 6991 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26648 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0026fd58  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000c2b2c719a-2750e44e  
To: <sip:3034030@5.5.5.45>  
Date: Sat, 09 Dec 2006 17:37:47 GMT  
Call-ID: 001a2f8d-f17f0009-412b47b6-61ffdf04@5.5.5.240  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK124820b09  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228516  
To: <sip:3034030@5.5.5.241>  
Date: Sat, 09 Dec 2006 17:37:47 GMT  
Call-ID: fa822d00-57a1f46b-26-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034030@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK124820b09  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228516  
To: <sip:3034030@5.5.5.241>  
Call-ID: fa822d00-57a1f46b-26-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:37:47 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[5] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK124820b09  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228516  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6000c3329b300-12d9962e  
 Call-ID: fa822d00-57a1f46b-26-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:37:47 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[6] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0026fd58  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000c2b2c719a-2750e44e  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228515  
 Date: Sat, 09 Dec 2006 17:37:47 GMT  
 Call-ID: 001a2f8d-f17f0009-412b47b6-61ffdf04@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[7] CANCEL sip:3034030@5.5.5.45 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0026fd58  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000c2b2c719a-2750e44e  
 To: <sip:3034030@5.5.5.45>  
 Call-ID: 001a2f8d-f17f0009-412b47b6-61ffdf04@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:38:00 GMT  
 CSeq: 101 CANCEL  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[8] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0026fd58  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000c2b2c719a-2750e44e  
 To: <sip:3034030@5.5.5.45>  
 Date: Sat, 09 Dec 2006 17:38:00 GMT  
 Call-ID: 001a2f8d-f17f0009-412b47b6-61ffdf04@5.5.5.240  
 CSeq: 101 CANCEL  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[9] CANCEL sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK124820b09  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228516  
 To: <sip:3034030@5.5.5.241>  
 Date: Sat, 09 Dec 2006 17:37:47 GMT  
 Call-ID: fa822d00-57a1f46b-26-2d050505@5.5.5.45  
 CSeq: 101 CANCEL  
 Max-Forwards: 70  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[10] SIP/2.0 487 Request Cancelled**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0026fd58  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000c2b2c719a-2750e44e  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228515  
 Date: Sat, 09 Dec 2006 17:38:00 GMT  
 Call-ID: 001a2f8d-f17f0009-412b47b6-61ffdf04@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[11] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK124820b09  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228516  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6000c3329b300-12d9962e  
 Call-ID: fa822d00-57a1f46b-26-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:37:59 GMT  
 CSeq: 101 CANCEL

Server: Cisco-CP7960G/7.5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[12] SIP/2.0 487 Request Cancelled  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK124820b09  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228516  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6000c3329b300-12d9962e  
Call-ID: fa822d00-57a1f46b-26-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:37:59 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[13] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK124820b09  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228516  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6000c3329b300-12d9962e  
Date: Sat, 09 Dec 2006 17:37:47 GMT  
Call-ID: fa822d00-57a1f46b-26-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[14] ACK sip:3034030@5.5.5.45 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK0026fd58  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000c2b2c719a-2750e44e  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228515  
Call-ID: 001a2f8d-f17f0009-412b47b6-61ffdf04@5.5.5.240  
Date: Sat, 09 Dec 2006 17:38:01 GMT  
CSeq: 101 ACK  
Content-Length: 0

## 2.10 Call Screening (Normal blocked)

Title: Call Screening (Normal blocked)

Description:

A SIP Basic phone attempts to call a blocked dialing pattern.

In this scenario, the blocked pattern (667) is configured with a "no error" blocking reason.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Note, SIP TNP and SCCP phones would clear the call on the phone without playing re-order. However a 3rd party or 7960 with a POS3-07-5-00 might play re-order.

Configuration:

Node = CCM, IP = 5.5.5.45

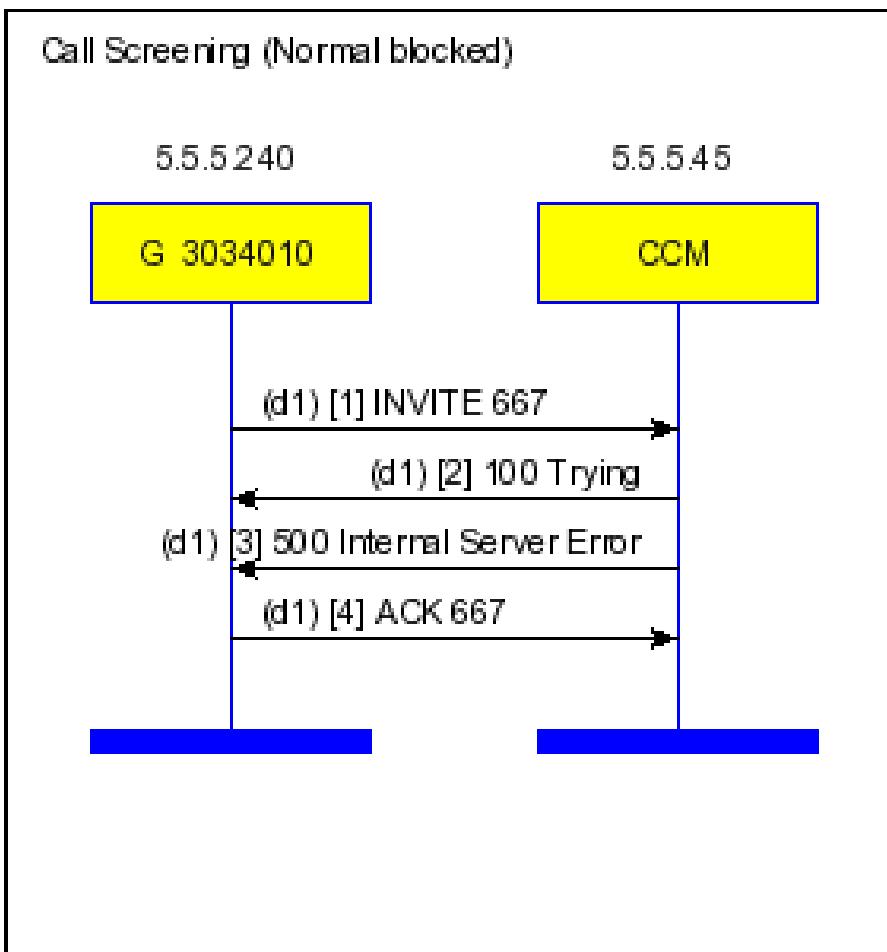
Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Scenario:

3034010 dials 667

CCM generates a 500 back to the phone

3034010 goes onhook



```
[diagram] Call-ID:[prev][next]
[1] INVITE sip:667@5.5.45 SIP/2.0
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK7e966b77
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00136063565a-4d98f923
To: <sip:667@5.5.5.45>
Call-ID: 001a2f8d-f17f000d-3c7dd114-34110aba@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:41:54 GMT
CSeq: 101 INVITE
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Expires: 180
Accept: application/sdp
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 12030 0 IN IP4 5.5.5.240
s=SIP Call
t=0
m=audio 26664 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[2] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK7e966b77
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00136063565a-4d98f923
To: <sip:667@5.5.5.45>
Date: Sat, 09 Dec 2006 17:41:54 GMT
Call-ID: 001a2f8d-f17f000d-3c7dd114-34110aba@5.5.5.240
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[3] SIP/2.0 500 Internal Server Error
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7e966b77
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00136063565a-4d98f923
To: <sip:667@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228523
Date: Sat, 09 Dec 2006 17:41:54 GMT
Call-ID: 001a2f8d-f17f000d-3c7dd114-34110aba@5.5.5.240
CSeq: 101 INVITE
Allow-Events: presence
Reason: Q.850;cause=41
Content-Length: 0

[diagram] Call-ID:[prev][next]
[4] ACK sip:667@5.5.45 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7e966b77
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00136063565a-4d98f923
To: <sip:667@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228523
Call-ID: 001a2f8d-f17f000d-3c7dd114-34110aba@5.5.5.240
Date: Sat, 09 Dec 2006 17:41:55 GMT
CSeq: 101 ACK
Content-Length: 0
```

## 2.11 Call Screening (Rejected blocked)

Title: Call Screening (Rejected blocked)

Description:

A SIP Basic phone attempts to call a blocked dialing pattern.

In this scenario, the blocked pattern (666) is configured with a "call rejected" blocking reason.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

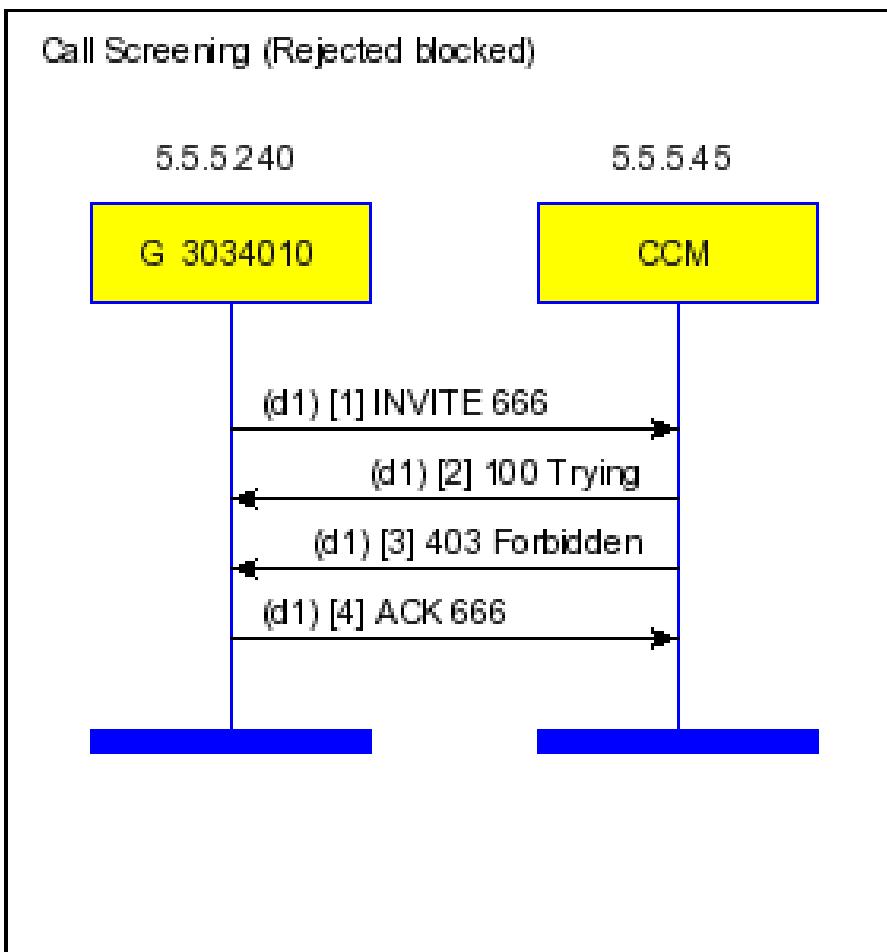
Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Scenario:

3034010 dials 666

CCM generates a 403 to the phone and the phone plays reorder

3034010 goes onhook



**[diagram] Call-ID:[prev][next]**  
**[1] INVITE sip:666@5.5.45 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK3557aef5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00144fc0d389-06e570cd  
 To: <sip:666@5.5.5.45>  
 Call-ID: 001a2f8d-f17f000e-74bb0178-44ec6581@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:42:39 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 13799 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26668 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 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 5.5.240:5060;branch=z9hG4bK3557aef5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00144fc0d389-06e570cd  
 To: <sip:666@5.5.5.45>  
 Date: Sat, 09 Dec 2006 17:42:39 GMT  
 Call-ID: 001a2f8d-f17f000e-74bb0178-44ec6581@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[3] SIP/2.0 403 Forbidden**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3557aef5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00144fc0d389-06e570cd  
 To: <sip:666@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228525  
 Date: Sat, 09 Dec 2006 17:42:39 GMT  
 Call-ID: 001a2f8d-f17f000e-74bb0178-44ec6581@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Reason: Q.850;cause=21  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[4] ACK sip:666@5.5.45 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3557aef5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00144fc0d389-06e570cd  
 To: <sip:666@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228525  
 Call-ID: 001a2f8d-f17f000e-74bb0178-44ec6581@5.5.5.240  
 Date: Sat, 09 Dec 2006 17:42:40 GMT  
 CSeq: 101 ACK  
 Content-Length: 0

## 2.12 Basic Call - SIP Basic calls unknown number

Title: Basic Call - SIP Basic calls unknown number

Description:

A SIP Basic phone calls an unknown number. "2099" is not configured.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

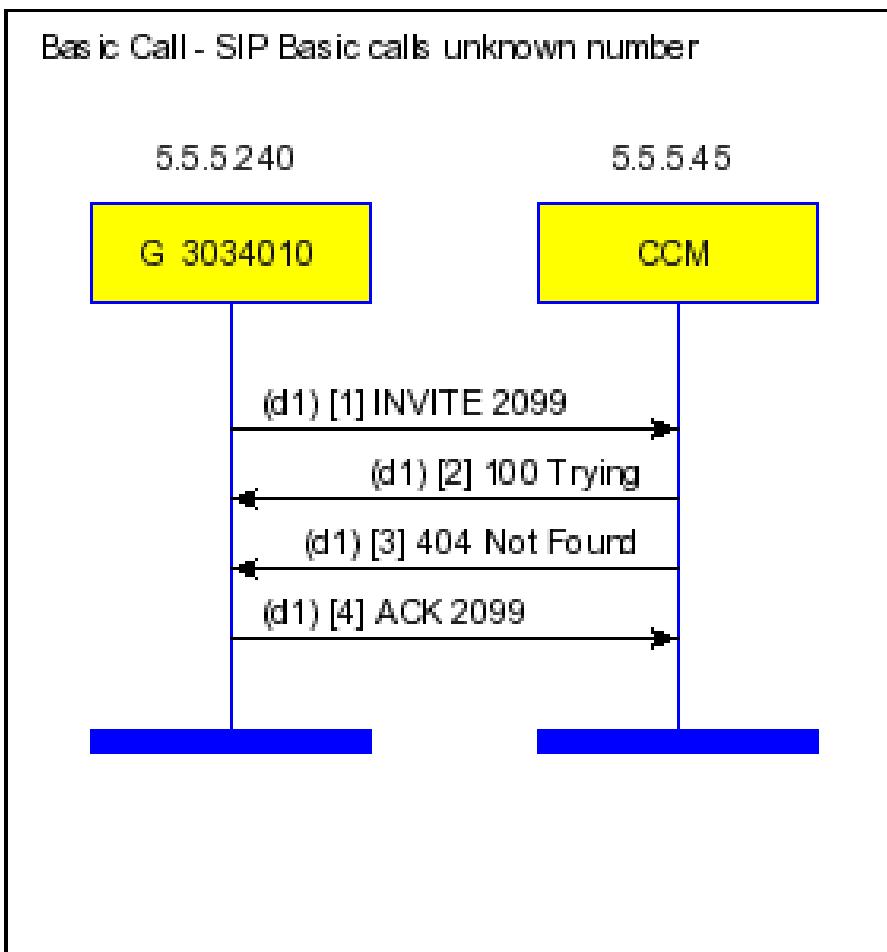
Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Scenario:

3034010 calls 2099

"404 not found" is sent back to 3034010

3034010 goes onhook



```
[diagram] Call-ID:[prev][next]
[1] INVITE sip:2099@5.5.5.45 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK04ba0155
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0005070209a0-2bedc05d
To: <sip:2099@5.5.5.45>
Call-ID: 001a2f8d-f17f0005-0597f4a1-78970098@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:29:19 GMT
CSeq: 101 INVITE
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Expires: 180
Accept: application/sdp
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 26718 0 IN IP4 5.5.5.240
s=SIP Call
t=0
m=audio 26632 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[2] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK04ba0155
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0005070209a0-2bedc05d
To: <sip:2099@5.5.5.45>
Date: Sat, 09 Dec 2006 17:29:20 GMT
Call-ID: 001a2f8d-f17f0005-0597f4a1-78970098@5.5.5.240
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[3] SIP/2.0 404 Not Found
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK04ba0155
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0005070209a0-2bedc05d
To: <sip:2099@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228507
Date: Sat, 09 Dec 2006 17:29:20 GMT
Call-ID: 001a2f8d-f17f0005-0597f4a1-78970098@5.5.5.240
CSeq: 101 INVITE
Allow-Events: presence
Reason: Q.850;cause=1
Content-Length: 0

[diagram] Call-ID:[prev][next]
[4] ACK sip:2099@5.5.5.45 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK04ba0155
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0005070209a0-2bedc05d
To: <sip:2099@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228507
Call-ID: 001a2f8d-f17f0005-0597f4a1-78970098@5.5.5.240
Date: Sat, 09 Dec 2006 17:29:20 GMT
CSeq: 101 ACK
Content-Length: 0
```

## 2.13 486 Busy Here

Title: 486 Busy Here

Description:

Most SIP phones driven by the CCM will have their "busy trigger" managed by the CCM such that if enough active calls to make the phone "busy" are already detected on that device then the CCM won't send additional INVITEs.

It is possible to either configure the CCM such that it's "busy" definition is for more active calls than the phone can handle or to make the phone busy with calls the CCM is not aware of.

If the phone detects that its busy it can respond with 486 Busy Here.

Note: CCM's configured call forward busy to DNs or  
call forward busy to voicemail will not  
be triggered by 486.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

(Setup: Make 3034030 Busy)

3034040 calls 3034030

3034030 rings

3034030 answers

3034040 and 3034030 are connected

3034030 puts 3034040 on hold

3034030 starts a new call (does not finish dialing)

(This makes the line "busy"...no more calls accepted)

(Actual Call)

3034010 calls 3034030

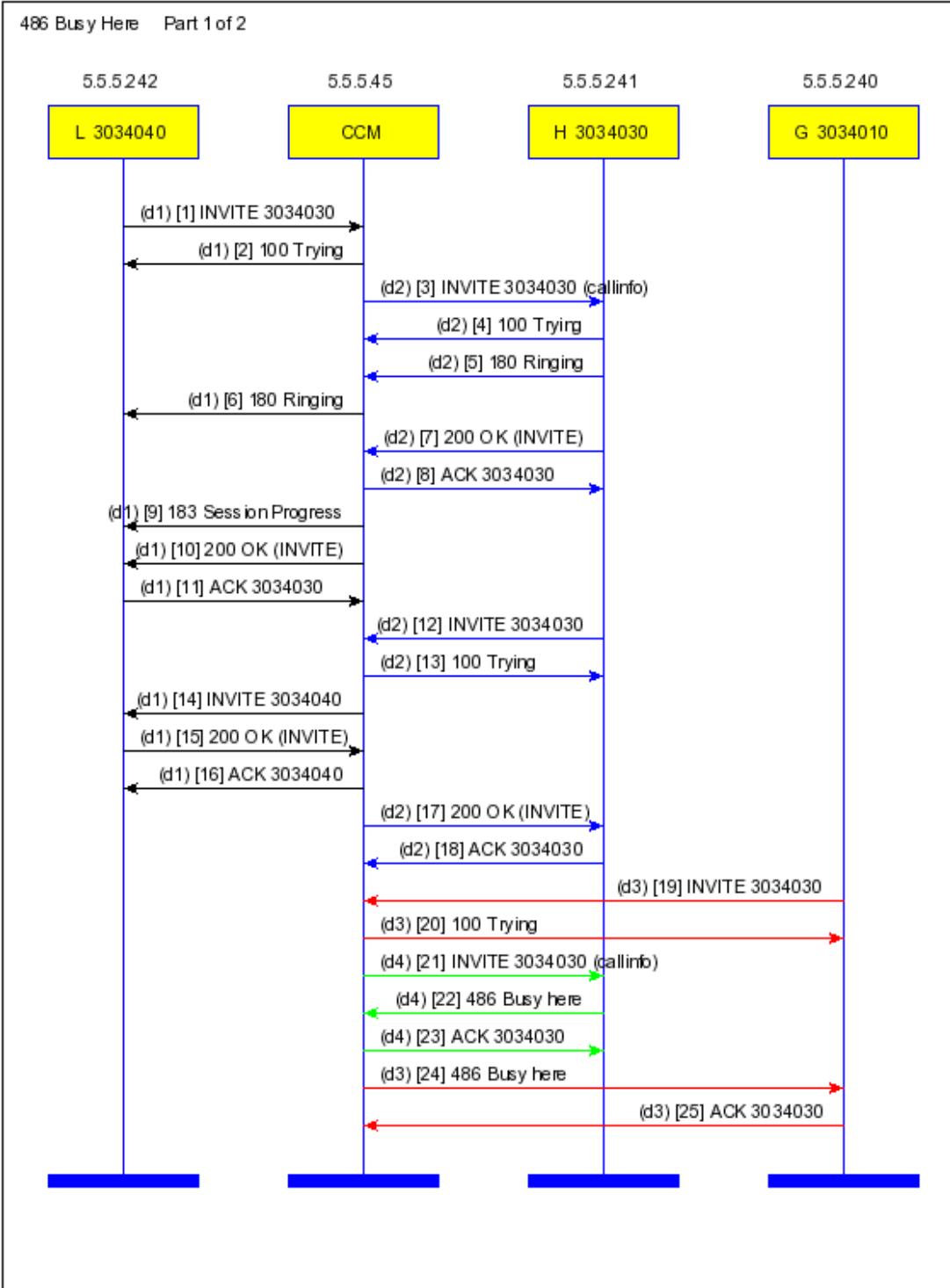
3034030 responds with "486 Busy Here"

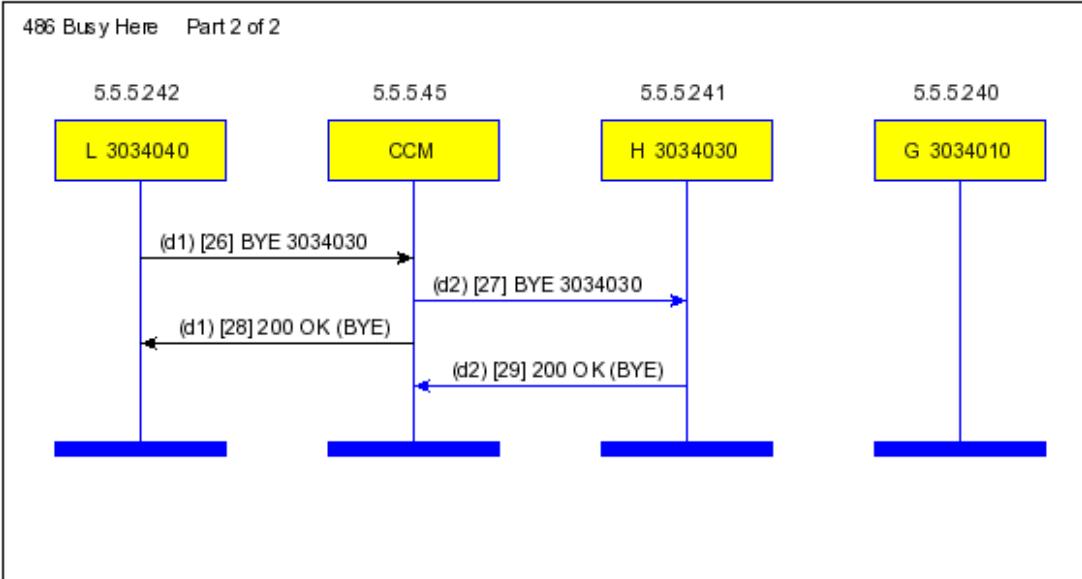
3034010 gets busy tone

3034010 goes onhook

3034040 goes onhook

3034030 goes onhook





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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK5f956787  
From: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
To: <sip:3034030@5.5.5.45>  
Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:55:01 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 8266 0 IN IP4 5.5.5.242  
s=SIP Call  
t=0 0  
m=audio 28514 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.242  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK5f956787  
From: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
To: <sip:3034030@5.5.45>  
Date: Sat, 09 Dec 2006 17:55:01 GMT  
Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4a563e20a8  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228556  
To: <sip:3034030@5.5.241>  
Date: Sat, 09 Dec 2006 17:55:01 GMT  
Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034030@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4a563e20a8  
From: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228556  
To: <sip:3034030@5.5.241>  
Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:55:00 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[5] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4a563e20a8  
 From: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228556  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600247cd2c03a-663961ae  
 Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:55:00 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[6] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK5f956787  
 From: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228555  
 Date: Sat, 09 Dec 2006 17:55:01 GMT  
 Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[7] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4a563e20a8  
 From: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228556  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600247cd2c03a-663961ae  
 Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:55:01 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 247  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 685 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17444 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
**[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4b63b21f66  
 From: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228556  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600247cd2c03a-663961ae  
 Date: Sat, 09 Dec 2006 17:55:01 GMT  
 Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
t=0 0
m=audio 28514 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] SIP/2.0 183 Session Progress**  
Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK5f956787  
From: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228555  
Date: Sat, 09 Dec 2006 17:55:01 GMT  
Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.241  
t=0 0  
m=audio 17444 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 5.5.5.242:5060;branch=z9hG4bK5f956787  
From: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228555  
Date: Sat, 09 Dec 2006 17:55:01 GMT  
Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Supported: replaces  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.241  
t=0 0  
m=audio 17444 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:3034030@5.5.5.45:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK1dd5b6d6  
From: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228555  
Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:55:03 GMT  
CSeq: 101 ACK  
User-Agent: Cisco-CP7960G/7.5  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] INVITE sip:3034030@5.5.5.45:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK743a6369  
From: <sip:3034030@5.5.5.241>;tag=001a2fc77d600247cd2c03a-663961ae  
To: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228556  
Call-ID: 62d20e00-57alf875-61-2d050505@5.5.5.45  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:55:14 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes

```

Content-Length: 247
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 685 1 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17444 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendonly

[diagram] Call-ID:[prev][next]
[13] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK743a6369
From: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d600247cd2c03a-663961ae
To: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228556
Date: Sat, 09 Dec 2006 17:55:15 GMT
Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4cac36000
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=calling;screen=yes;privacy=off
From: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228556
To: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2
Date: Sat, 09 Dec 2006 17:55:15 GMT
Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242
Supported: timer,replaces
Min-SE: 1800
Cisco-Guid: 1657933312-1470232693-96-755303685
User-Agent: Cisco-CCM5.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Contact: <sip:3034030@5.5.5.45:5060>
Expires: 180
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 291

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17444 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]
[15] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4cac36000
From: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228556
To: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2
Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242
Date: Sat, 09 Dec 2006 17:55:16 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 198
Content-Type: application/sdp

```

Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 8266 1 IN IP4 5.5.5.242  
s=SIP Call  
t=0 0  
m=audio 28514 RTP/AVP 0 101  
c=IN IP4 5.5.5.242  
a=rtpmap:0 PCMU/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=recvonly

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

[16] ACK sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4d3d6abba5  
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228555  
To: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
Date: Sat, 09 Dec 2006 17:55:15 GMT  
Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Length: 0

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

[17] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK743a6369  
From: <sip:3034030@5.5.5.241>;tag=001a2fc77d600247cd2c03a-663961ae  
To: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228556  
Date: Sat, 09 Dec 2006 17:55:15 GMT  
Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Supported: replaces  
Content-Type: application/sdp  
Content-Length: 217

v=0  
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.242  
t=0 0  
m=audio 28514 RTP/AVP 0 101  
a=rtpmap:0 PCMU/8000  
a=ptime:20  
a=recvonly  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15

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

[18] ACK sip:3034030@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK51e40515  
From: <sip:3034030@5.5.5.241>;tag=001a2fc77d600247cd2c03a-663961ae  
To: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228556  
Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:55:14 GMT  
CSeq: 101 ACK  
User-Agent: Cisco-CP7960G/7.5  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

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

[19] INVITE sip:3034030@5.5.5.45 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK229f93b7  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00211a3047a7-0aa87631  
To: <sip:3034030@5.5.5.45>  
Call-ID: 001a2f8d-f17f0017-5f4f4f47-7df9a122@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:55:20 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE

```

Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 24745 0 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26704 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[20] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK229f93b7
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00211a3047a7-0aa87631
To: <sip:3034030@5.5.45>
Date: Sat, 09 Dec 2006 17:55:19 GMT
Call-ID: 001a2f8d-f17f0017-5f4f4f47-7df9a122@5.5.5.240
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[21] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4e13091983
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228558
To: <sip:3034030@5.5.241>
Date: Sat, 09 Dec 2006 17:55:19 GMT
Call-ID: 6d8ca300-57a1f887-63-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
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; call-instance= 2
Alert-Info: <file://Bellcore-dr1/>
Contact: <sip:3034030@5.5.5.45:5060>
Max-Forwards: 69
Content-Length: 0

[diagram] Call-ID:[prev][next]
[22] SIP/2.0 486 Busy here
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4e13091983
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228558
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d60025795bebf4-3b603c34
Call-ID: 6d8ca300-57a1f887-63-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:55:19 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034030@5.5.5.241:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[23] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4e13091983
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228558
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d60025795bebf4-3b603c34
Date: Sat, 09 Dec 2006 17:55:19 GMT
Call-ID: 6d8ca300-57a1f887-63-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[24] SIP/2.0 486 Busy here
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK229f93b7

```

From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00211a3047a7-0aa87631  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228557  
 Date: Sat, 09 Dec 2006 17:55:19 GMT  
 Call-ID: 001a2f8d-f17f0017-5f4f4f47-7df9a122@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Reason: Q.850;cause=17  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [25] ACK sip:3034030@5.5.5.45 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK229f93b7  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00211a3047a7-0aa87631  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228557  
 Call-ID: 001a2f8d-f17f0017-5f4f4f47-7df9a122@5.5.5.240  
 Date: Sat, 09 Dec 2006 17:55:20 GMT  
 CSeq: 101 ACK  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [26] BYE sip:3034030@5.5.5.45:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK13f93cca  
 From: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228555  
 Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:55:23 GMT  
 CSeq: 102 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [27] BYE sip:3034030@5.5.5.241:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4f4e869b66  
 From: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228556  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600247cd2c03a-663961ae  
 Date: Sat, 09 Dec 2006 17:55:15 GMT  
 Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 102 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [28] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK13f93cca  
 From: "3034040" <sip:3034040@5.5.5.45>;tag=0018b93bb53e0015420ee556-52f6b6e2  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228555  
 Date: Sat, 09 Dec 2006 17:55:22 GMT  
 Call-ID: 0018b93b-b53e0007-3c915c0e-4a31d47b@5.5.5.242  
 CSeq: 102 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [29] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK4f4e869b66  
 From: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228556  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600247cd2c03a-663961ae  
 Call-ID: 62d20e00-57a1f875-61-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:55:22 GMT  
 CSeq: 102 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

### 3. Hold Resume

#### 3.1 Basic Call - Call Hold and Resume (SIP to SIP)

Title: Basic Call - Call Hold and Resume (SIP to SIP)

Description:

A SIP Basic phone calls another SIP Basic phone and presses hold.

No MOH is heard. The holder presses resume and two-way speech is restored.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

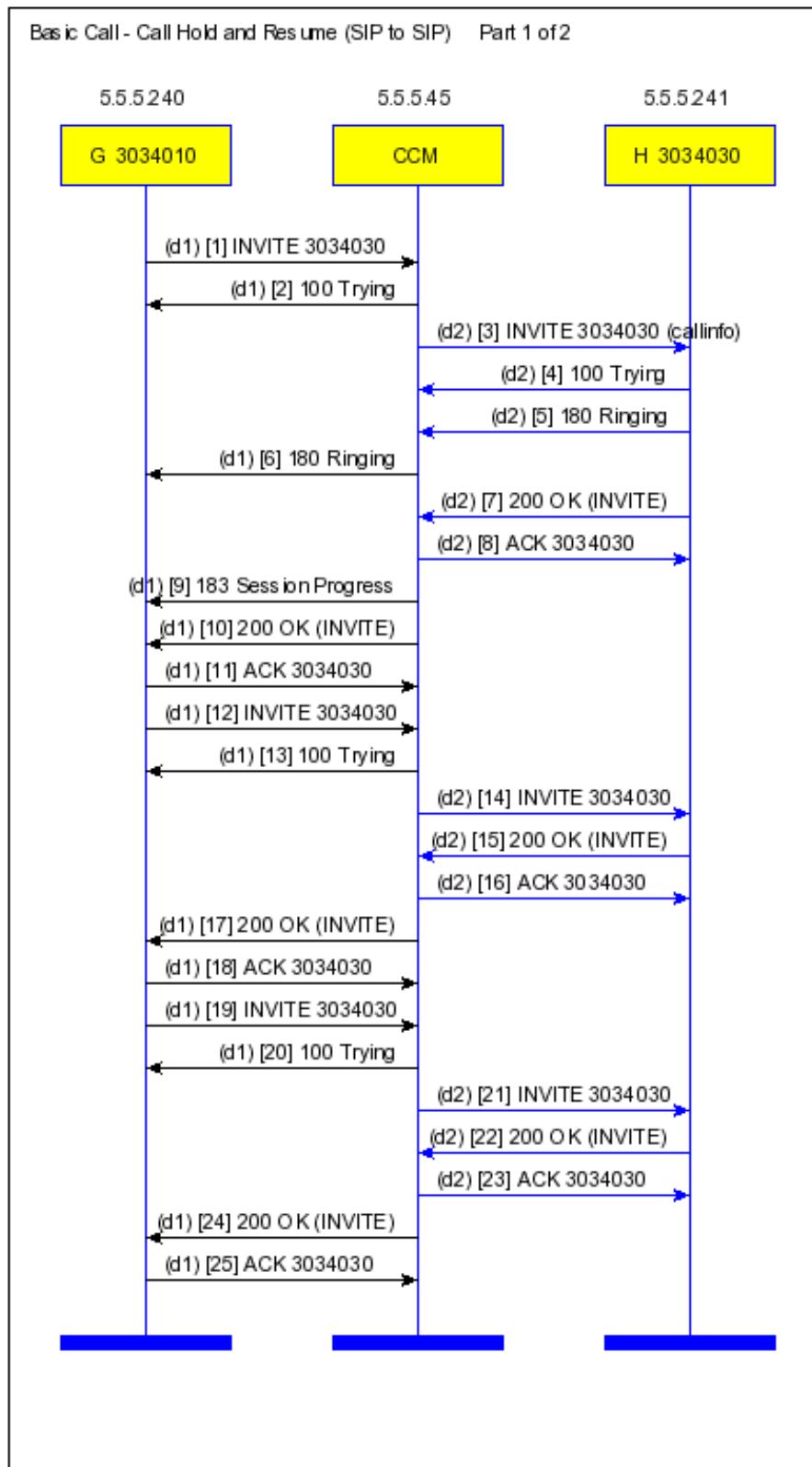
3034010 calls 3034030

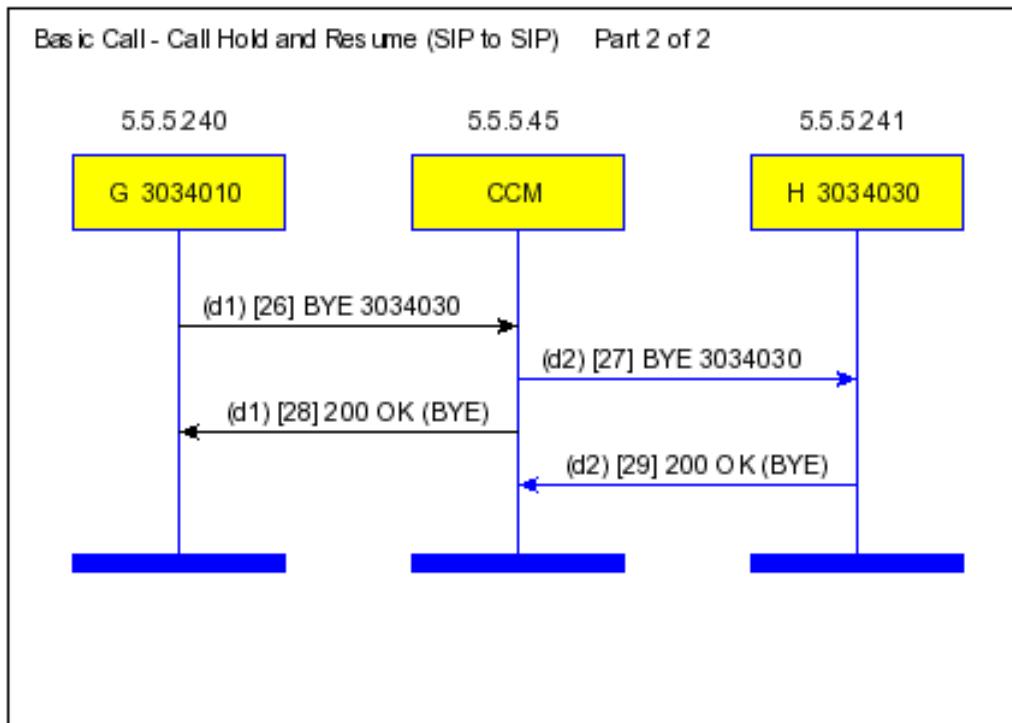
3034030 answers

3034010 presses hold

3034010 presses resume

3034010 goes onhook





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

[1] **INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK113708bd  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
To: <sip:3034030@5.5.5.45>  
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 18:07:19 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 1349 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26756 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

[2] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK113708bd  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
To: <sip:3034030@5.5.5.45>  
Date: Sat, 09 Dec 2006 18:07:18 GMT  
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

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

[3] **INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb1405ac72b  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228589  
To: <sip:3034030@5.5.5.241>  
Date: Sat, 09 Dec 2006 18:07:18 GMT  
Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034030@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

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

[4] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb1405ac72b  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228589  
To: <sip:3034030@5.5.5.241>  
Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:07:18 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb1405ac72b  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003345f9f7a0-70ac3d2f  
Call-ID: 1alb5480-57a1fb56-8f-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:07:18 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK113708bd  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588  
Date: Sat, 09 Dec 2006 18:07:18 GMT  
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb1405ac72b  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003345f9f7a0-70ac3d2f  
Call-ID: 1alb5480-57a1fb56-8f-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:07:19 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 26662 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17472 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb27da2937e  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003345f9f7a0-70ac3d2f  
Date: Sat, 09 Dec 2006 18:07:18 GMT  
Call-ID: 1alb5480-57a1fb56-8f-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26756 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK113708bd  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228588  
 Date: Sat, 09 Dec 2006 18:07:18 GMT  
 Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17472 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 5.5.5.240:5060;branch=z9hG4bK113708bd  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228588  
 Date: Sat, 09 Dec 2006 18:07:18 GMT  
 Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17472 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:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK5f9b1557  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228588  
 Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:07:21 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] INVITE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK39e17cbb  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228588  
 Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:07:24 GMT  
 CSeq: 102 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 1349 1 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26756 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendonly

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

[13] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK39e17cbb  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228588  
 Date: Sat, 09 Dec 2006 18:07:23 GMT  
 Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
 CSeq: 102 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[14] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb37f65dcf7  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228589  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003345f9f7a0-70ac3d2f  
 Date: Sat, 09 Dec 2006 18:07:23 GMT  
 Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 291

v=0  
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26756 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]

[15] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb37f65dcf7  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228589  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003345f9f7a0-70ac3d2f  
 Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:07:23 GMT  
 CSeq: 102 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 199  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```

v=0
o=Cisco-SIPUA 26662 1 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17472 RTP/AVP 0 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=recvonly

[diagram] Call-ID:[prev][next]
[16] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb43dff292f
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589
To: <sip:3034030@5.5.241>;tag=001a2fcbb77d6003345f9f7a0-70ac3d2f
Date: Sat, 09 Dec 2006 18:07:23 GMT
Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45
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 5.5.5.240:5060;branch=z9hG4bK39e17cbb
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588
Date: Sat, 09 Dec 2006 18:07:23 GMT
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 217

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17472 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]
[18] ACK sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK44be2367
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:07:24 GMT
CSeq: 102 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[19] INVITE sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK2ac6932c
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:07:26 GMT
CSeq: 103 INVITE
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 248
Content-Type: application/sdp
Content-Disposition: session;handling=optional

```

```
v=0
o=Cisco-SIPUA 1349 2 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26756 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

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

**[20] SIP/2.0 100 Trying**

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK2ac6932c
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588
Date: Sat, 09 Dec 2006 18:07:25 GMT
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240
CSeq: 103 INVITE
Allow-Events: presence
Content-Length: 0
```

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

**[21] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb538d398cc
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003345f9f7a0-70ac3d2f
Date: Sat, 09 Dec 2006 18:07:25 GMT
Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 INVITE
Max-Forwards: 70
Contact: <sip:3034010@5.5.5.45:5060>
Expires: 180
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 279
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26756 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]**

**[22] SIP/2.0 200 OK**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb538d398cc
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003345f9f7a0-70ac3d2f
Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 18:07:25 GMT
CSeq: 103 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034030@5.5.5.241:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 199
Content-Type: application/sdp
Content-Disposition: session;handling=optional
```

```
v=0
o=Cisco-SIPUA 26662 2 IN IP4 5.5.5.241
s=SIP Call
```

```

t=0 0
m=audio 17472 RTP/AVP 0 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[23] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb61eca409d
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6003345f9f7a0-70ac3d2f
Date: Sat, 09 Dec 2006 18:07:25 GMT
Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[24] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK2ac6932c
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588
Date: Sat, 09 Dec 2006 18:07:25 GMT
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17472 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]
[25] ACK sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK4324215a
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:07:26 GMT
CSeq: 103 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[26] BYE sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK4f998d4c
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:07:28 GMT
CSeq: 104 BYE
User-Agent: Cisco-CP7960G/7.5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[27] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb7af3f9e
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6003345f9f7a0-70ac3d2f
Date: Sat, 09 Dec 2006 18:07:25 GMT
Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1

```

Max-Forwards: 70  
CSeq: 104 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[28] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK4f998d4c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f003301fc3a14-6940d6e8  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228588  
Date: Sat, 09 Dec 2006 18:07:27 GMT  
Call-ID: 001a2f8d-f17f0024-3f66df09-4856655e@5.5.5.240  
CSeq: 104 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[29] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb7af3f9e  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228589  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003345f9f7a0-70ac3d2f  
Call-ID: 1a1b5480-57a1fb56-8f-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:07:27 GMT  
CSeq: 104 BYE  
Server: Cisco-CP7960G/7.5  
Content-Length: 0

### 3.2 Basic Call - Call Hold and Resume (SIP to SCCP)

Title: Basic Call - Call Hold and Resume (SIP to SCCP)

Description:

SIP Basic phone calls an SCCP phone and presses hold. No MOH is heard. SIP Basic phone presses resume and two-way speech is restored.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = I, Line = 3031010, IP = 5.5.5.217, Model = SCCP

Scenario:

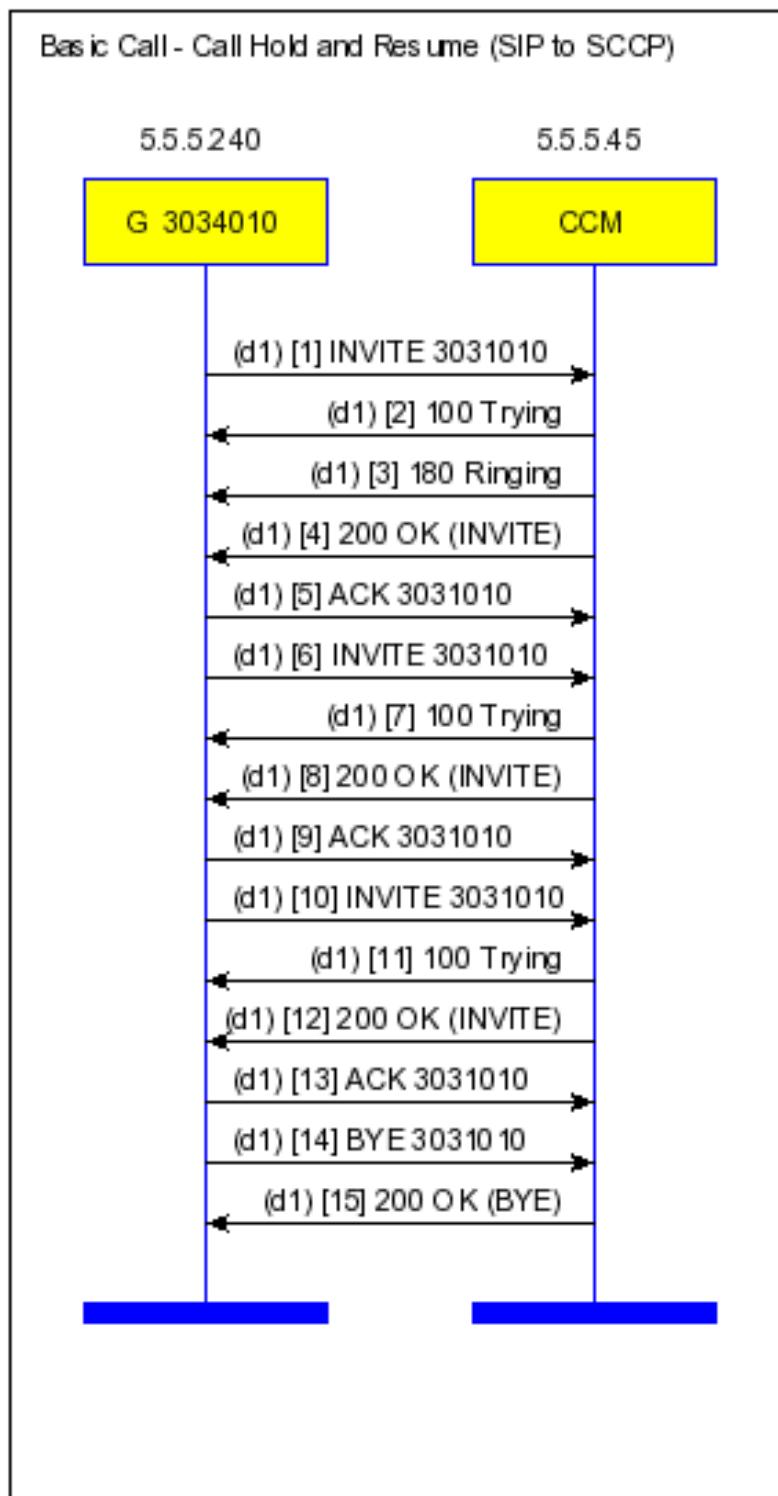
3034010 calls 3031010

3031010 answers

3034010 presses hold

3034010 presses resume

3034010 goes onhook



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

**[1] INVITE sip:3031010@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7f793327  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259  
To: <sip:3031010@5.5.5.45>  
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 18:06:23 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 10160 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26752 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7f793327  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259  
To: <sip:3031010@5.5.5.45>  
Date: Sat, 09 Dec 2006 18:06:22 GMT  
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240  
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 5.5.5.240:5060;branch=z9hG4bK7f793327  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259  
To: <sip:3031010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228586  
Date: Sat, 09 Dec 2006 18:06:22 GMT  
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "Megan" <sip:3031010@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3031010@5.5.5.45:5060>  
Content-Length: 0

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

**[4] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7f793327  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259  
To: <sip:3031010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228586  
Date: Sat, 09 Dec 2006 18:06:22 GMT  
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "Megan" <sip:3031010@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3031010@5.5.5.45:5060>  
Supported: replaces  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.217  
t=0 0  
m=audio 30144 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:3031010@5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK08a1e840
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228586
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:06:28 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[6] INVITE sip:3031010@5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3f52fc38
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228586
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:06:31 GMT
CSeq: 102 INVITE
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 10160 1 IN IP4 5.5.5.240
s=SIP Call
t=0
m=audio 26752 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendonly

[diagram] Call-ID:[prev][next]
[7] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3f52fc38
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228586
Date: Sat, 09 Dec 2006 18:06:30 GMT
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240
CSeq: 102 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[8] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3f52fc38
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228586
Date: Sat, 09 Dec 2006 18:06:30 GMT
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "Megan" <sip:3031010@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3031010@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 217

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.217
t=0
m=audio 30144 RTP/AVP 0 101

```

```

a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]
[9] ACK sip:3031010@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK4006d1ad
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228586
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:06:31 GMT
CSeq: 102 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[10] INVITE sip:3031010@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK02687192
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228586
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:06:36 GMT
CSeq: 103 INVITE
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 10160 2 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26752 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[11] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK02687192
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228586
Date: Sat, 09 Dec 2006 18:06:35 GMT
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240
CSeq: 103 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[12] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK02687192
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228586
Date: Sat, 09 Dec 2006 18:06:35 GMT
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.5.240
CSeq: 103 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "Megan" <sip:3031010@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3031010@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.217
t=0 0

```

```
m=audio 30144 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]
[13] ACK sip:3031010@5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK2cf8a9e6
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228586
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:06:36 GMT
CSeq: 103 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] BYE sip:3031010@5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK78e9853d
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228586
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:06:45 GMT
CSeq: 104 BYE
User-Agent: Cisco-CP7960G/7.5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[15] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK78e9853d
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f00324297a373-00a4b259
To: <sip:3031010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228586
Date: Sat, 09 Dec 2006 18:06:44 GMT
Call-ID: 001a2f8d-f17f0023-0c50616c-50bcee3a@5.5.240
CSeq: 104 BYE
Content-Length: 0
```

## 4. Conference

### 4.1 Three Way Conference Calling (SIP Basic Phones)

Title: Three Way Conference Calling (SIP Basic Phones)

Description:

G calls H and then G conferences in L.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 is ringing

3034030 answers

3034010 presses Confrn softkey

3034010 dials 3034040

3034040 is ringing

3034040 answers

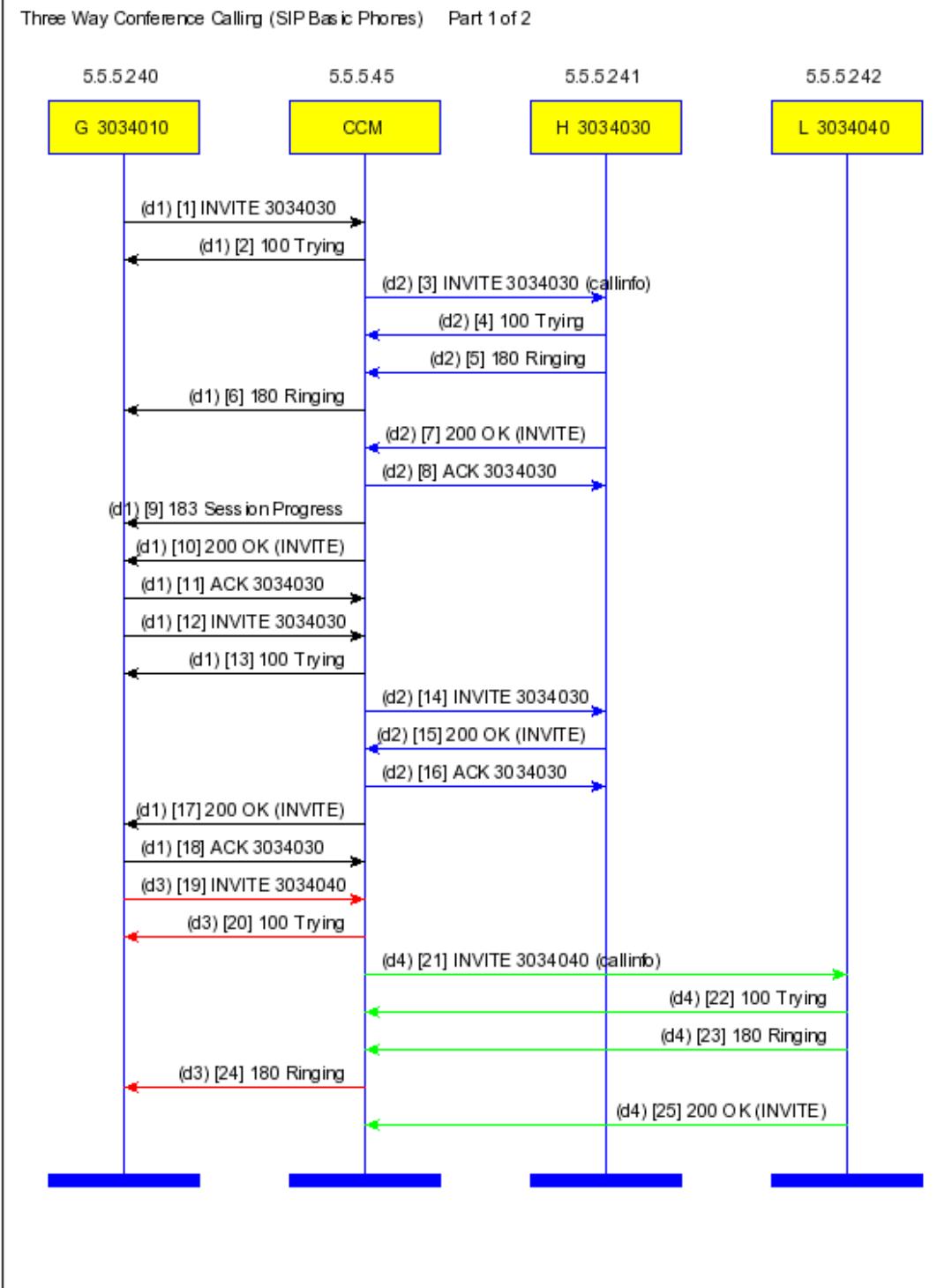
3034010 presses Join softkey to complete the conference

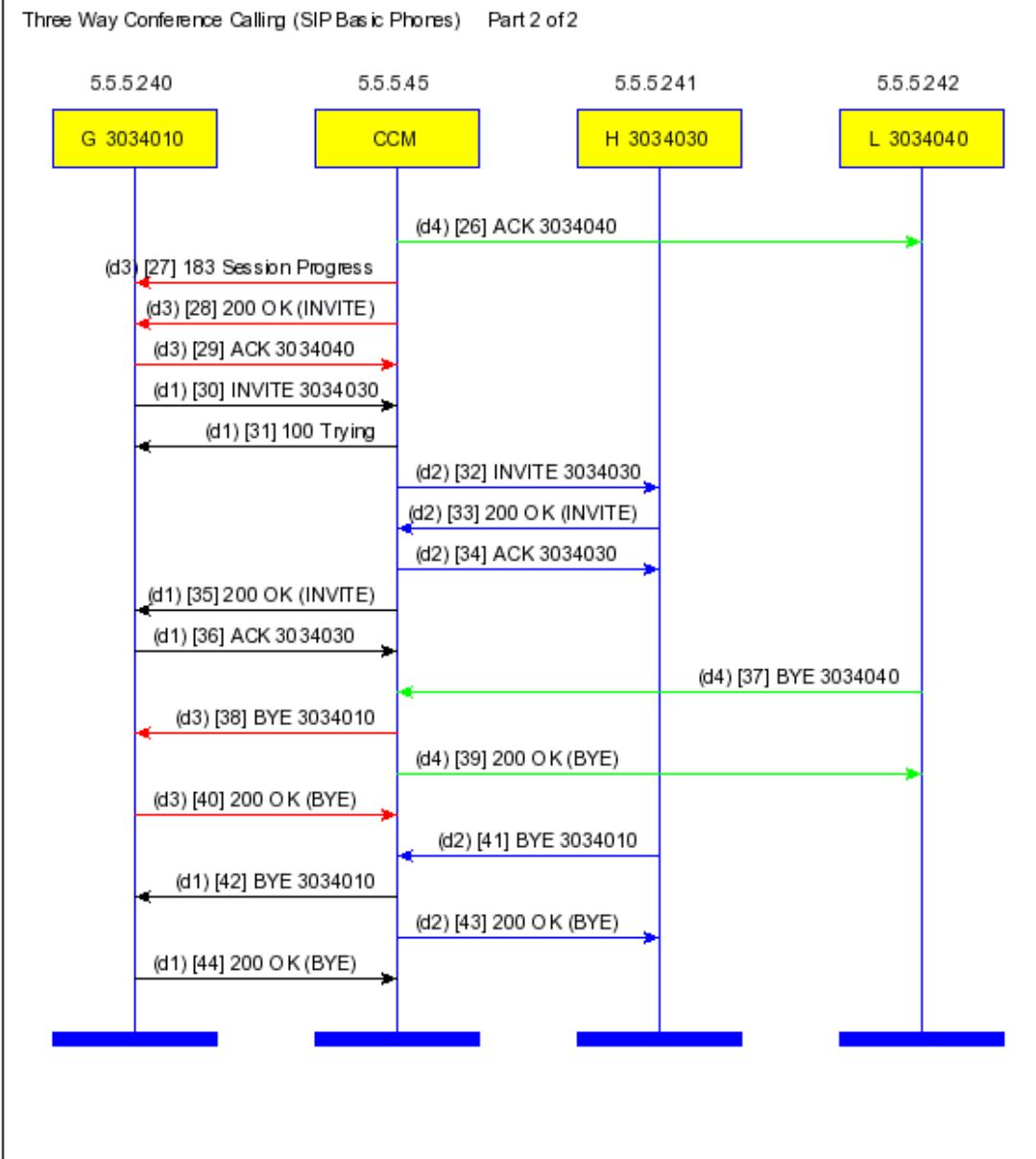
3034010, 3034030, and 3034040 are in three way conference

3034040 goes onhook

3034030 goes onhook

3034010 goes onhook





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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK739671e5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 To: <sip:3034030@5.5.5.45>  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:01:35 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 4975 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26732 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtpt:101 0-15  
 a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK739671e5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 To: <sip:3034030@5.5.45>  
 Date: Sat, 09 Dec 2006 18:01:34 GMT  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9765f82be1  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228576  
 To: <sip:3034030@5.5.241>  
 Date: Sat, 09 Dec 2006 18:01:34 GMT  
 Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9765f82be1  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228576  
 To: <sip:3034030@5.5.241>  
 Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:01:34 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9765f82be1  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002ela8fec60-191c5eb0  
Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:01:34 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK739671e5  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
Date: Sat, 09 Dec 2006 18:01:34 GMT  
Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9765f82be1  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002ela8fec60-191c5eb0  
Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:01:36 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 12043 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17460 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK986721fa52  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002ela8fec60-191c5eb0  
Date: Sat, 09 Dec 2006 18:01:34 GMT  
Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26732 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK739671e5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
 Date: Sat, 09 Dec 2006 18:01:34 GMT  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17460 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 5.5.5.240:5060;branch=z9hG4bK739671e5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
 Date: Sat, 09 Dec 2006 18:01:34 GMT  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17460 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:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK6fdb49e  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:01:37 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] INVITE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK5553cc70  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:01:41 GMT  
 CSeq: 102 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 222  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 4975 1 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26732 RTP/AVP 0 8 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendonly

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

[13] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK5553cc70  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
 Date: Sat, 09 Dec 2006 18:01:40 GMT  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
 CSeq: 102 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[14] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK992dbc4c9c  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002e1a8fec60-191c5eb0  
 Date: Sat, 09 Dec 2006 18:01:40 GMT  
 Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 253

v=0  
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26732 RTP/AVP 0 8 101  
 a=rtpmap:0 PCMU/8000  
 a=ptime:20  
 a=rtpmap:8 PCMA/8000  
 a=ptime:20  
 a=sendonly  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15

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

[15] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK992dbc4c9c  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002e1a8fec60-191c5eb0  
 Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:01:40 GMT  
 CSeq: 102 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 199  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 12043 1 IN IP4 5.5.5.241

```
s=SIP Call
t=0 0
m=audio 17460 RTP/AVP 0 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=recvonly

[diagram] Call-ID:[prev][next]
[16] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9a3525d1e1
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002e1a8fec60-191c5eb0
Date: Sat, 09 Dec 2006 18:01:40 GMT
Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45
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 5.5.5.240:5060;branch=z9hG4bK5553cc70
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575
Date: Sat, 09 Dec 2006 18:01:40 GMT
Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 217

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17460 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]
[18] ACK sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK787421cf
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575
Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:01:41 GMT
CSeq: 102 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[19] INVITE sip:3034040@5.5.5.45 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK001e14cb
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002d431fc2ee-437dd5be
To: <sip:3034040@5.5.5.45>
Call-ID: 001a2f8d-f17f001f-400fe039-129bf1a5@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:01:45 GMT
CSeq: 101 INVITE
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Expires: 180
Accept: application/sdp
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 222
Content-Type: application/sdp
```

Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 5742 0 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26736 RTP/AVP 0 8 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

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

**[20] SIP/2.0 100 Trying**

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK001e14cb
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002d431fc2ee-437dd5be
To: <sip:3034040@5.5.5.45>
Date: Sat, 09 Dec 2006 18:01:44 GMT
Call-ID: 001a2f8d-f17f001f-400fe039-129bf1a5@5.5.5.240
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0
```

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

**[21] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9b1d395b93
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228578
To: <sip:3034040@5.5.242>
Date: Sat, 09 Dec 2006 18:01:44 GMT
Call-ID: 5306f980-57a1fa08-82-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
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; call-instance= 1
Alert-Info: <file://Bellcore-dr1/>
Contact: <sip:3034040@5.5.5.45:5060>
Max-Forwards: 69
Content-Length: 0
```

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

**[22] SIP/2.0 100 Trying**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9b1d395b93
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228578
To: <sip:3034040@5.5.242>
Call-ID: 5306f980-57a1fa08-82-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 18:01:44 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

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

**[23] SIP/2.0 180 Ringing**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9b1d395b93
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228578
To: <sip:3034040@5.5.242>;tag=0018b93bb53e001e54de5d07-7c0ca212
Call-ID: 5306f980-57a1fa08-82-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 18:01:44 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

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

**[24] SIP/2.0 180 Ringing**

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK001e14cb
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f002d431fc2ee-437dd5be
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228577
Date: Sat, 09 Dec 2006 18:01:44 GMT
```

Call-ID: 001a2f8d-f17f001f-400fe039-129bf1a5@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[25] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9b1d395b93  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228578  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001e54de5d07-7c0ca212  
 Call-ID: 5306f980-57alfa08-82-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:01:48 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 2620 0 IN IP4 5.5.5.242  
 s=SIP Call  
 t=0 0  
 m=audio 28534 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.242  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram] Call-ID:[prev][next]**  
**[26] ACK sip:3034040@5.5.5.242:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9c57407c10  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228578  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001e54de5d07-7c0ca212  
 Date: Sat, 09 Dec 2006 18:01:44 GMT  
 Call-ID: 5306f980-57alfa08-82-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26736 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]**  
**[27] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK001e14cb  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002d431fc2ee-437dd5be  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228577  
 Date: Sat, 09 Dec 2006 18:01:44 GMT  
 Call-ID: 001a2f8d-f17f001f-400fe039-129bf1a5@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call

```
c=IN IP4 5.5.5.242
t=0 0
m=audio 28534 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]

[28] SIP/2.0 200 OK

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK001e14cb
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002d431fc2ee-437dd5be
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228577
Date: Sat, 09 Dec 2006 18:01:44 GMT
Call-ID: 001a2f8d-f17f001f-400fe039-129bf1a5@5.5.5.240
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034040@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 205
```

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
t=0 0
m=audio 28534 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]

[29] ACK sip:3034040@5.5.5.45:5060 SIP/2.0

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK34c55e84
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002d431fc2ee-437dd5be
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228577
Call-ID: 001a2f8d-f17f001f-400fe039-129bf1a5@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:01:49 GMT
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

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

[30] INVITE sip:3034030@5.5.5.45:5060 SIP/2.0

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK46329a61
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575
Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 18:01:51 GMT
CSeq: 103 INVITE
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 222
Content-Type: application/sdp
Content-Disposition: session;handling=optional
```

```
v=0
o=Cisco-SIPUA 4975 2 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26732 RTP/AVP 0 8 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

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

[31] SIP/2.0 100 Trying

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK46329a61
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52
```

To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
 Date: Sat, 09 Dec 2006 18:01:50 GMT  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
 CSeq: 103 INVITE  
 Allow-Events: presence  
 Content-Length: 0

**[diagram] Call-ID: [prev][next]**  
**[32] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9db708209  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002ela8fec60-191c5eb0  
 Date: Sat, 09 Dec 2006 18:01:50 GMT  
 Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 103 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 241

v=0  
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26732 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]**  
**[33] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9db708209  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002ela8fec60-191c5eb0  
 Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:01:50 GMT  
 CSeq: 103 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 199  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 12043 2 IN IP4 5.5.5.241  
 s=SIP Call  
 t=0 0  
 m=audio 17460 RTP/AVP 0 101  
 c=IN IP4 5.5.5.241  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram] Call-ID: [prev][next]**  
**[34] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9e1599ca8  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002ela8fec60-191c5eb0  
 Date: Sat, 09 Dec 2006 18:01:50 GMT  
 Call-ID: 4d111880-57a1f9fe-7d-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 103 ACK  
 Allow-Events: presence  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[35] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK46329a61  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
Date: Sat, 09 Dec 2006 18:01:50 GMT  
Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
CSeq: 103 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Supported: replaces  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.241  
t=0 0  
m=audio 17460 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]  
[36] ACK sip:3034030@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK16226e06  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 18:01:51 GMT  
CSeq: 103 ACK  
User-Agent: Cisco-CP7960G/7.5  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[37] BYE sip:3034040@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK0a35dcc5  
From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001e54de5d07-7c0ca212  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228578  
Call-ID: 5306f980-57alfa08-82-2d050505@5.5.5.45  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 18:01:58 GMT  
CSeq: 101 BYE  
User-Agent: Cisco-CP7960G/7.5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[38] BYE sip:3034010@5.5.5.240:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9f3225e84b  
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228577  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002d431fc2ee-437dd5be  
Date: Sat, 09 Dec 2006 18:01:48 GMT  
Call-ID: 001a2f8d-f17f001f-400fe039-129bf1a5@5.5.5.240  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 101 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[39] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.242:5060;branch=z9hG4bK0a35dcc5  
From: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001e54de5d07-7c0ca212  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228578  
Date: Sat, 09 Dec 2006 18:01:58 GMT  
Call-ID: 5306f980-57alfa08-82-2d050505@5.5.5.45  
CSeq: 101 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[40] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9f3225e84b  
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228577  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002d431fc2ee-437dd5be  
Call-ID: 001a2f8d-f17f001f-400fe039-129bf1a5@5.5.5.240

Date: Sat, 09 Dec 2006 18:01:59 GMT  
 CSeq: 101 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [41] BYE sip:3034010@5.5.45:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.241:5060;branch=z9hG4bK26f16e92  
 From: <sip:3034030@5.5.241>;tag=001a2fc77d6002e1a8fec60-191c5eb0  
 To: "SIP Basic 3034010" <sip:3034010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
 Call-ID: 4d111880-57alf9fe-7d-2d050505@5.5.45  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:02:04 GMT  
 CSeq: 101 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [42] BYE sip:3034010@5.5.240:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKa04e97f86f  
 From: <sip:3034030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
 To: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 Date: Sat, 09 Dec 2006 18:01:50 GMT  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.240  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 101 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [43] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.241:5060;branch=z9hG4bK26f16e92  
 From: <sip:3034030@5.5.241>;tag=001a2fc77d6002e1a8fec60-191c5eb0  
 To: "SIP Basic 3034010" <sip:3034010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228576  
 Date: Sat, 09 Dec 2006 18:02:04 GMT  
 Call-ID: 4d111880-57alf9fe-7d-2d050505@5.5.45  
 CSeq: 101 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [44] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKa04e97f86f  
 From: <sip:3034030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228575  
 To: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f002b5261ea85-3c401e52  
 Call-ID: 001a2f8d-f17f001e-321c8e69-25765483@5.5.240  
 Date: Sat, 09 Dec 2006 18:02:05 GMT  
 CSeq: 101 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

## 5. Transfer

### 5.1 Transfer Attended (All SIP Basic phones)

Title: Transfer Attended (All SIP Basic phones)

Description:

G calls H and then performs a consultative transfer to L.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone. Finally, "Transfer Attended" is sometimes referred to as "Consultative Transfer".

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 is ringing

3034030 answers

3034010 presses Transfer softkey

3034010 dials 3034040

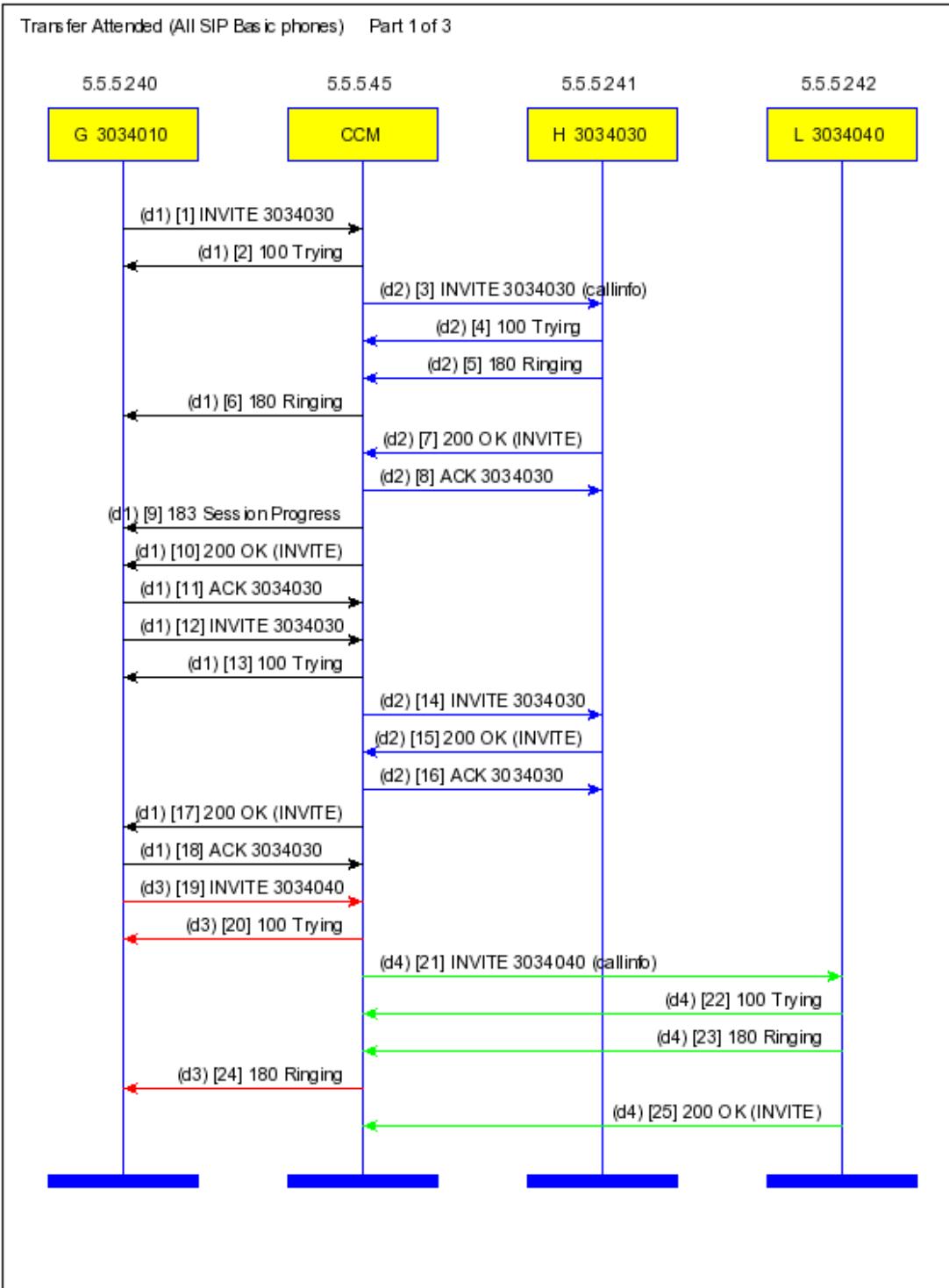
3034040 is ringing

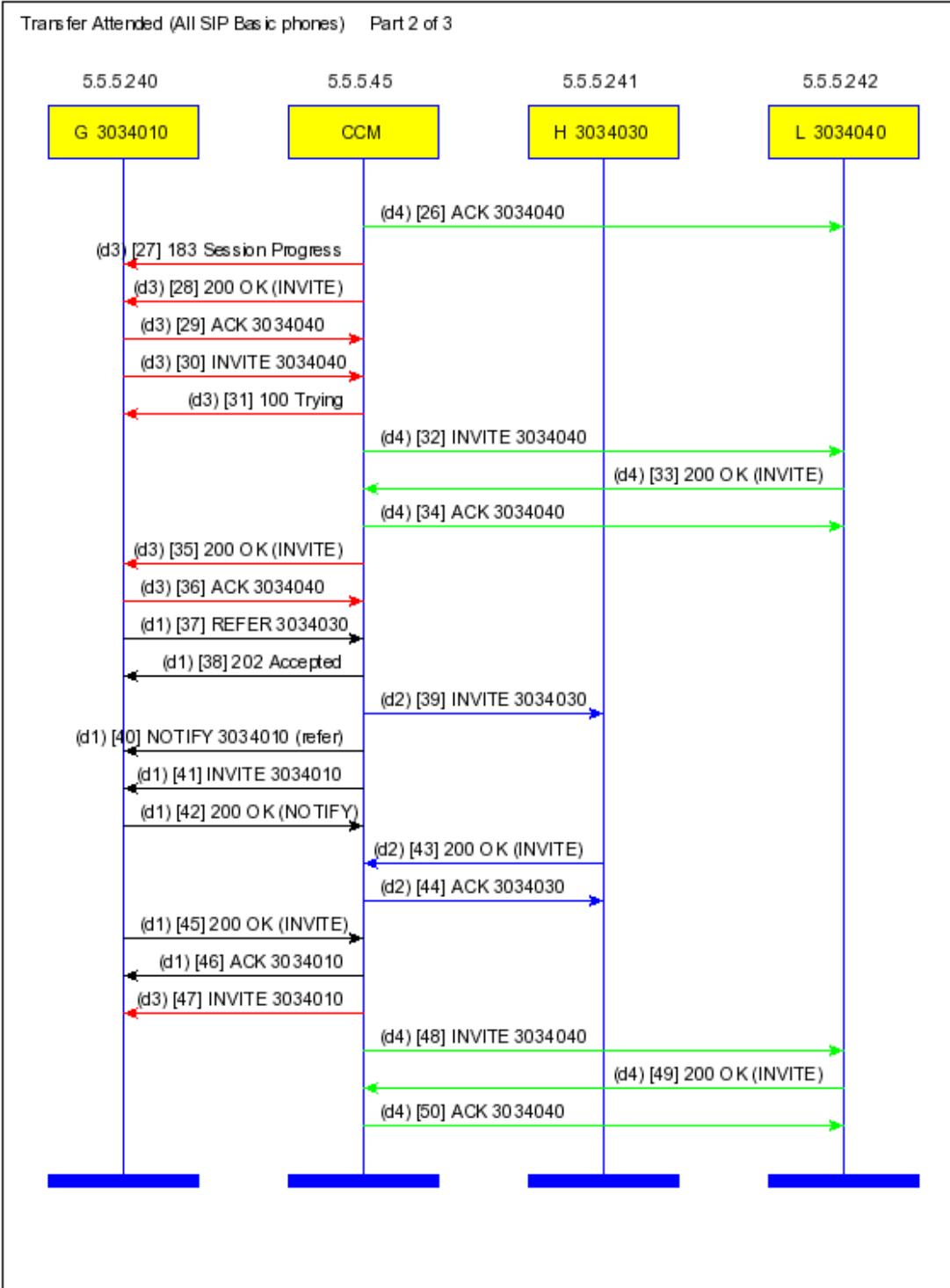
3034040 answers

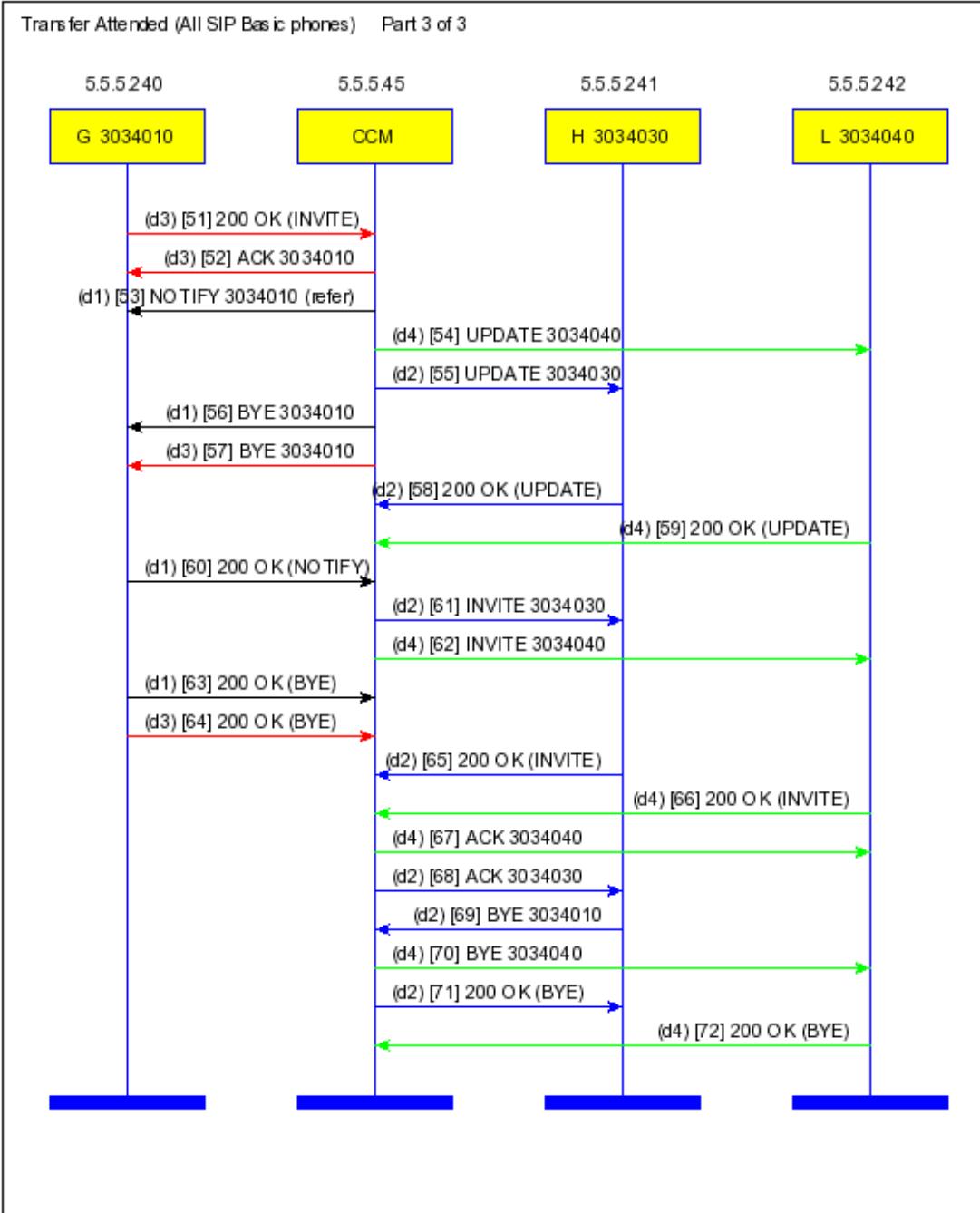
3034010 presses Transfer softkey to complete the transfer

3034030 and 3034040 are connected

3034030 goes onhook







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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK540c4c8f  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:18 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 6216 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26708 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 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 5.5.5.240:5060;branch=z9hG4bK540c4c8f  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.45>  
 Date: Sat, 09 Dec 2006 17:57:17 GMT  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5061fd630a  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228560  
 To: <sip:3034030@5.5.241>  
 Date: Sat, 09 Dec 2006 17:57:17 GMT  
 Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5061fd630a  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228560  
 To: <sip:3034030@5.5.241>  
 Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:57:17 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5061fd630a  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002a453f09e7-0885ce54  
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:57:17 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK540c4c8f  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559  
Date: Sat, 09 Dec 2006 17:57:17 GMT  
Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5061fd630a  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002a453f09e7-0885ce54  
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:57:19 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 6266 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17448 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK514853f7f7
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002a453f09e7-0885ce54
Date: Sat, 09 Dec 2006 17:57:17 GMT
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26708 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK540c4c8f  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Date: Sat, 09 Dec 2006 17:57:17 GMT  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17448 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 5.5.5.240:5060;branch=z9hG4bK540c4c8f  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Date: Sat, 09 Dec 2006 17:57:17 GMT  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17448 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:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK4115add6  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:20 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] INVITE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK362d7104  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:25 GMT  
 CSeq: 102 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 6216 1 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26708 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendonly

**[diagram] Call-ID:[prev][next]**  
**[13] SIP/2.0 100 Trying**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK362d7104  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Date: Sat, 09 Dec 2006 17:57:25 GMT  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 CSeq: 102 INVITE  
 Allow-Events: presence  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[14] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5256fde438  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002a453f09e7-0885ce54  
 Date: Sat, 09 Dec 2006 17:57:25 GMT  
 Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 291

v=0  
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26708 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]**  
**[15] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5256fde438  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002a453f09e7-0885ce54  
 Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:57:24 GMT  
 CSeq: 102 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 198  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 6266 1 IN IP4 5.5.5.241  
 s=SIP Call  
 t=0 0  
 m=audio 17448 RTP/AVP 0 101  
 c=IN IP4 5.5.5.241  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=recvonly

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

[16] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK531c7c07ab  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002a453f09e7-0885ce54  
 Date: Sat, 09 Dec 2006 17:57:25 GMT  
 Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
 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 5.5.5.240:5060;branch=z9hG4bK362d7104  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Date: Sat, 09 Dec 2006 17:57:25 GMT  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 CSeq: 102 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 217

v=0  
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17448 RTP/AVP 0 101  
 a=rtpmap:0 PCMU/8000  
 a=ptime:20  
 a=recvonly  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15

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

[18] ACK sip:3034030@5.5.5.45:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK471bc0e6  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:26 GMT  
 CSeq: 102 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

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

[19] INVITE sip:3034040@5.5.5.45 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK13fc841  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
 To: <sip:3034040@5.5.5.45>  
 Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:30 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

```

Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 16789 0 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26712 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[20] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK13fcb841
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7
To: <sip:3034040@5.5.5.45>
Date: Sat, 09 Dec 2006 17:57:29 GMT
Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[21] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5414a1a985
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>
Date: Sat, 09 Dec 2006 17:57:29 GMT
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
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; call-instance= 1
Alert-Info: <file://Bellcore-drl/>
Contact: <sip:3034040@5.5.5.45:5060>
Max-Forwards: 69
Content-Length: 0

[diagram] Call-ID:[prev][next]
[22] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5414a1a985
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:57:30 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[23] SIP/2.0 180 Ringing
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5414a1a985
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:57:31 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[24] SIP/2.0 180 Ringing

```

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK13fc841  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561  
 Date: Sat, 09 Dec 2006 17:57:29 GMT  
 Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Content-Length: 0

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

**[25] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5414a1a985  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f  
 Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:57:33 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 6808 0 IN IP4 5.5.5.242  
 s=SIP Call  
 t=0 0  
 m=audio 28518 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.242  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

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

**[26] ACK sip:3034040@5.5.5.242:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5514c36a6  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f  
 Date: Sat, 09 Dec 2006 17:57:29 GMT  
 Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26712 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]

**[27] SIP/2.0 183 Session Progress**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK13fc841  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561  
 Date: Sat, 09 Dec 2006 17:57:29 GMT  
 Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.242  
t=0 0  
m=audio 28518 RTP/AVP 0 101  
a=rtpmap:0 PCMU/8000  
a=ptime:20  
a=rtpmap:101 telephone-event/8000  
a=fmtcp:101 0-15

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

[28] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK13fc841  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561  
Date: Sat, 09 Dec 2006 17:57:29 GMT  
Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034040@5.5.5.45:5060>  
Supported: replaces  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.242  
t=0 0  
m=audio 28518 RTP/AVP 0 101  
a=rtpmap:0 PCMU/8000  
a=ptime:20  
a=rtpmap:101 telephone-event/8000  
a=fmtcp:101 0-15

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

[29] ACK sip:3034040@5.5.5.45:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK6cd7bd01  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561  
Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:57:34 GMT  
CSeq: 101 ACK  
User-Agent: Cisco-CP7960G/7.5  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

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

[30] INVITE sip:3034040@5.5.5.45:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK07a301f4  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561  
Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:57:35 GMT  
CSeq: 102 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 16789 1 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26712 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtcp:101 0-15  
a=sendonly

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

[31] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK07a301f4  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561  
 Date: Sat, 09 Dec 2006 17:57:35 GMT  
 Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
 CSeq: 102 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[32] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK563636a4d0  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f  
 Date: Sat, 09 Dec 2006 17:57:35 GMT  
 Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 291

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26712 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=fmtpt:101 0-15
```

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

[33] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK563636a4d0  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f  
 Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:57:36 GMT  
 CSeq: 102 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 198  
 Content-Type: application/sdp  
 Content-Disposition: session/handling=optional

```
v=0
o=Cisco-SIPUA 6808 1 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28518 RTP/AVP 0 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=recvonly
```

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

[34] ACK sip:3034040@5.5.5.242:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK575db1e88f  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562

To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f  
 Date: Sat, 09 Dec 2006 17:57:35 GMT  
 Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 102 ACK  
 Allow-Events: presence  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [35] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK07a301f4  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228561  
 Date: Sat, 09 Dec 2006 17:57:35 GMT  
 Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
 CSeq: 102 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 217

v=0  
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 28518 RTP/AVP 0 101  
 a=rtpmap:0 PCMU/8000  
 a=ptime:20  
 a=recvonly  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]  
 [36] ACK sip:3034040@5.5.5.45:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK720e5e42  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
 To: <sip:3034040@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228561  
 Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:36 GMT  
 CSeq: 102 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [37] REFER sip:3034030@5.5.5.45:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK71e7d2bf  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:36 GMT  
 CSeq: 103 REFER  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0  
 Refer-To: <sip:3034040@5.5.5.45?Replaces=001a2f8d-f17f0019-300d15ac-0bf1b7dc%405.5.5.240%3Bto-  
 tag%3da4fefeb43-9497-4bf5-a407-909c95e47fb7-32228561%3Bfrom-tag%3D001a2f8df17f0025702aa81b-65bec5f7>  
 Referred-By: "3034010" <sip:3034010@5.5.5.45>

[diagram] Call-ID:[prev][next]  
 [38] SIP/2.0 202 Accepted  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK71e7d2bf  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228559  
 Date: Sat, 09 Dec 2006 17:57:35 GMT  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 CSeq: 103 REFER  
 Content-Length: 0  
 Contact: <sip:3034030@5.5.5.45:5060>

[diagram] Call-ID:[prev][next]  
 [39] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5a4e18deb4

Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002a453f09e7-0885ce54  
 Date: Sat, 09 Dec 2006 17:57:35 GMT  
 Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 103 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 289

v=0  
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 0.0.0.0  
 t=0 0  
 m=audio 26708 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=inactive  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15

**[diagram] Call-ID:[prev][next]**  
**[40] NOTIFY sip:3034010@5.5.5.240:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK58495e24  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:35 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: refer  
 Subscription-State: active;expires=60  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: message/sipfrag;version=2.0  
 Content-Length: 20

SIP/2.0 100 Trying

**[diagram] Call-ID:[prev][next]**  
**[41] INVITE sip:3034010@5.5.5.240:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5936f4fb26  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
 Date: Sat, 09 Dec 2006 17:57:35 GMT  
 Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
 Supported: timer,replaces  
 Min-SE: 1800  
 Cisco-Guid: 3017933312-1470232829-108-755303685  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 215

v=0  
 o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 0.0.0.0  
 t=0 0  
 m=audio 17448 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]
[42] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK58495e24
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408
Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240
Date: Sat, 09 Dec 2006 17:57:36 GMT
CSeq: 101 NOTIFY
Content-Length: 0

[diagram] Call-ID:[prev][next]
[43] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5a4e18deb4
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6002a453f09e7-0885ce54
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:57:35 GMT
CSeq: 103 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034030@5.5.5.241:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 198
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 6266 2 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17448 RTP/AVP 0 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=inactive

[diagram] Call-ID:[prev][next]
[44] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5bd34ebc7
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6002a453f09e7-0885ce54
Date: Sat, 09 Dec 2006 17:57:35 GMT
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[45] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5936f4fb26
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408
Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240
Date: Sat, 09 Dec 2006 17:57:36 GMT
CSeq: 102 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 198
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 6216 2 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26708 RTP/AVP 0 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

```

a=inactive

[diagram] Call-ID:[prev][next]
[46] ACK sip:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5c6783fe59
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408
Date: Sat, 09 Dec 2006 17:57:35 GMT
Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[47] INVITE sip:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5d65e1caa3
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7
Date: Sat, 09 Dec 2006 17:57:36 GMT
Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240
Supported: timer,replaces
Min-SE: 1800
Cisco-Guid: 3137933312-1470232841-110-755303685
User-Agent: Cisco-CCM5.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Max-Forwards: 70
Contact: <sip:3034040@5.5.5.45:5060>
Expires: 180
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 215

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 28518 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]
[48] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5e665b1c1e
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off
From: <"SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>;tag=001b93bb53e001814dcba4f2-6af3b16f
Date: Sat, 09 Dec 2006 17:57:36 GMT
Call-ID: bb091000-57alf909-6f-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 103 INVITE
Max-Forwards: 70
Contact: <sip:3034010@5.5.5.45:5060>
Expires: 180
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 289

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 26712 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=inactive

```

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a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]
[49] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5e665b1c1e
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:57:37 GMT
CSeq: 103 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 198
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 6808 2 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28518 RTP/AVP 0 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=inactive

[diagram] Call-ID:[prev][next]
[50] ACK sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5f72427e43
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f
Date: Sat, 09 Dec 2006 17:57:36 GMT
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[51] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK5d65e1caa3
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7
Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240
Date: Sat, 09 Dec 2006 17:57:37 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 199
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 16789 2 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26712 RTP/AVP 0 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=inactive

[diagram] Call-ID:[prev][next]
[52] ACK sip:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6020b0713e
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7
Date: Sat, 09 Dec 2006 17:57:36 GMT
Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240
Max-Forwards: 70
CSeq: 101 ACK

```

Allow-Events: presence  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[53] NOTIFY sip:3034010@5.5.5.240:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6173543de2  
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559  
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
CSeq: 103 NOTIFY  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:57:36 GMT  
User-Agent: Cisco-CCM5.1  
Event: refer  
Subscription-State: terminated;reason=noresource  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Type: message/sipfrag;version=2.0  
Content-Length: 16

SIP/2.0 200 OK

[diagram] Call-ID:[prev][next]  
[54] UPDATE sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6270a2434b  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f  
Date: Sat, 09 Dec 2006 17:57:36 GMT  
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 104 UPDATE  
Contact: <sip:3034010@5.5.5.45:5060>  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=calling;screen=yes;privacy=off  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[55] UPDATE sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK636dfaec01  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002a453f09e7-0885ce54  
Date: Sat, 09 Dec 2006 17:57:35 GMT  
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 104 UPDATE  
Contact: <sip:3034010@5.5.5.45:5060>  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[56] BYE sip:3034010@5.5.5.240:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK646e2e400f  
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559  
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408  
Date: Sat, 09 Dec 2006 17:57:35 GMT  
Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 104 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[57] BYE sip:3034010@5.5.5.240:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK652db9e35a  
From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561  
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7  
Date: Sat, 09 Dec 2006 17:57:36 GMT  
Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[58] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK636dfaec01  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002a453f09e7-0885ce54  
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:57:36 GMT

```

CSeq: 104 UPDATE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034030@5.5.5.241:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Content-Length: 248
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 6266 2 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17448 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[59] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6270a2434b
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:57:37 GMT
CSeq: 104 UPDATE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Content-Length: 248
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 6808 2 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28518 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[60] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6173543de2
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408
Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240
Date: Sat, 09 Dec 2006 17:57:37 GMT
CSeq: 103 NOTIFY
Content-Length: 0

[diagram] Call-ID:[prev][next]
[61] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK66ad71d6c
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002a453f09e7-0885ce54
Date: Sat, 09 Dec 2006 17:57:36 GMT
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 105 INVITE
Max-Forwards: 70
Contact: <sip:3034010@5.5.5.45:5060>
Expires: 180
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[62] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0

```

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK672112f328  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f

Date: Sat, 09 Dec 2006 17:57:36 GMT

Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45

Supported: timer,replaces

Min-SE: 1800

User-Agent: Cisco-CCM5.1

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

CSeq: 105 INVITE

Max-Forwards: 70

Contact: <sip:3034010@5.5.5.45:5060>

Expires: 180

Allow-Events: presence

Content-Length: 0

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

**[63] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK646e2e400f

From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228559

To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002473a341b3-72f4c408

Call-ID: 001a2f8d-f17f0018-0c456621-7724e5a3@5.5.5.240

Date: Sat, 09 Dec 2006 17:57:37 GMT

CSeq: 104 BYE

Server: Cisco-CP7960G/7.5

Content-Length: 0

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

**[64] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK652db9e35a

From: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228561

To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f0025702aa81b-65bec5f7

Call-ID: 001a2f8d-f17f0019-300d15ac-0bf1b7dc@5.5.5.240

Date: Sat, 09 Dec 2006 17:57:37 GMT

CSeq: 102 BYE

Server: Cisco-CP7960G/7.5

Content-Length: 0

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

**[65] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK66ad71d6c

From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560

To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002a453f09e7-0885ce54

Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45

Date: Sat, 09 Dec 2006 17:57:36 GMT

CSeq: 105 INVITE

Server: Cisco-CP7960G/7.5

Contact: <sip:3034030@5.5.5.241:5060>

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE

Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes

Supported: replaces

Content-Length: 248

Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0

o=Cisco-SIPUA 6266 2 IN IP4 5.5.5.241

s=SIP Call

t=0 0

m=audio 17448 RTP/AVP 0 8 18 101

c=IN IP4 5.5.5.241

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:18 G729/8000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

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

**[66] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK672112f328

From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562

To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f

Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45

Date: Sat, 09 Dec 2006 17:57:37 GMT

CSeq: 105 INVITE

Server: Cisco-CP7960G/7.5

Contact: <sip:3034040@5.5.5.242:5060>

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE

Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 6808 2 IN IP4 5.5.5.242  
 s=SIP Call  
 t=0 0  
 m=audio 28518 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.242  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram] Call-ID:[prev][next]**  
**[67] ACK sip:3034040@5.5.5.242:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK687d691d42  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f  
 Date: Sat, 09 Dec 2006 17:57:36 GMT  
 Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 105 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17448 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]**  
**[68] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6944f8fc54  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002a453f09e7-0885ce54  
 Date: Sat, 09 Dec 2006 17:57:36 GMT  
 Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 105 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 28518 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]**  
**[69] BYE sip:3034010@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK45067f0b  
 From: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002a453f09e7-0885ce54  
 To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560  
 Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:57:44 GMT  
 CSeq: 101 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

```
[diagram] Call-ID:[prev][next]
[70] BYE sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6a3f58d23
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f
Date: Sat, 09 Dec 2006 17:57:36 GMT
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 106 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[71] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK45067f0b
From: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002a453f09e7-0885ce54
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228560
Date: Sat, 09 Dec 2006 17:57:44 GMT
Call-ID: b3e20200-57a1f8fd-6d-2d050505@5.5.5.45
CSeq: 101 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[72] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6a3f58d23
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228562
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001814dcba4f2-6af3b16f
Call-ID: bb091000-57a1f909-6f-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:57:45 GMT
CSeq: 106 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0
```

## 5.2 Transfer Semi-Attended (All SIP Basic phones)

Title: Transfer Semi-Attended (All SIP Basic phones)

Description:

G calls H and then performs an early attended transfer to L.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone. Note "Transfer Semi-Attended" is sometimes referred to as "Early Attended Transfer".

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 is ringing

3034030 answers

3034010 presses Transfer softkey

3034010 dials 3034040

3034040 is ringing

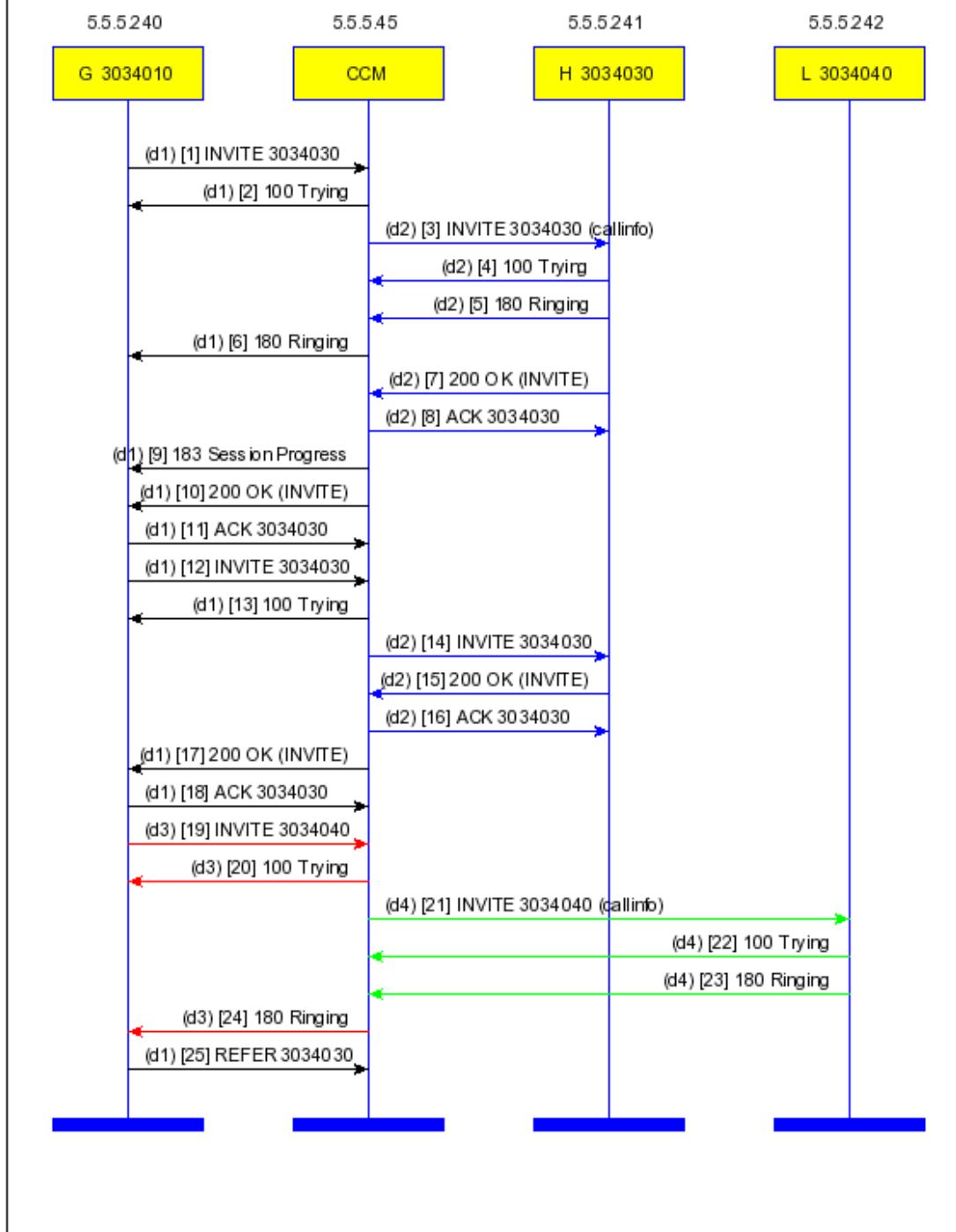
3034010 presses Transfer softkey to complete the transfer

3034040 answers

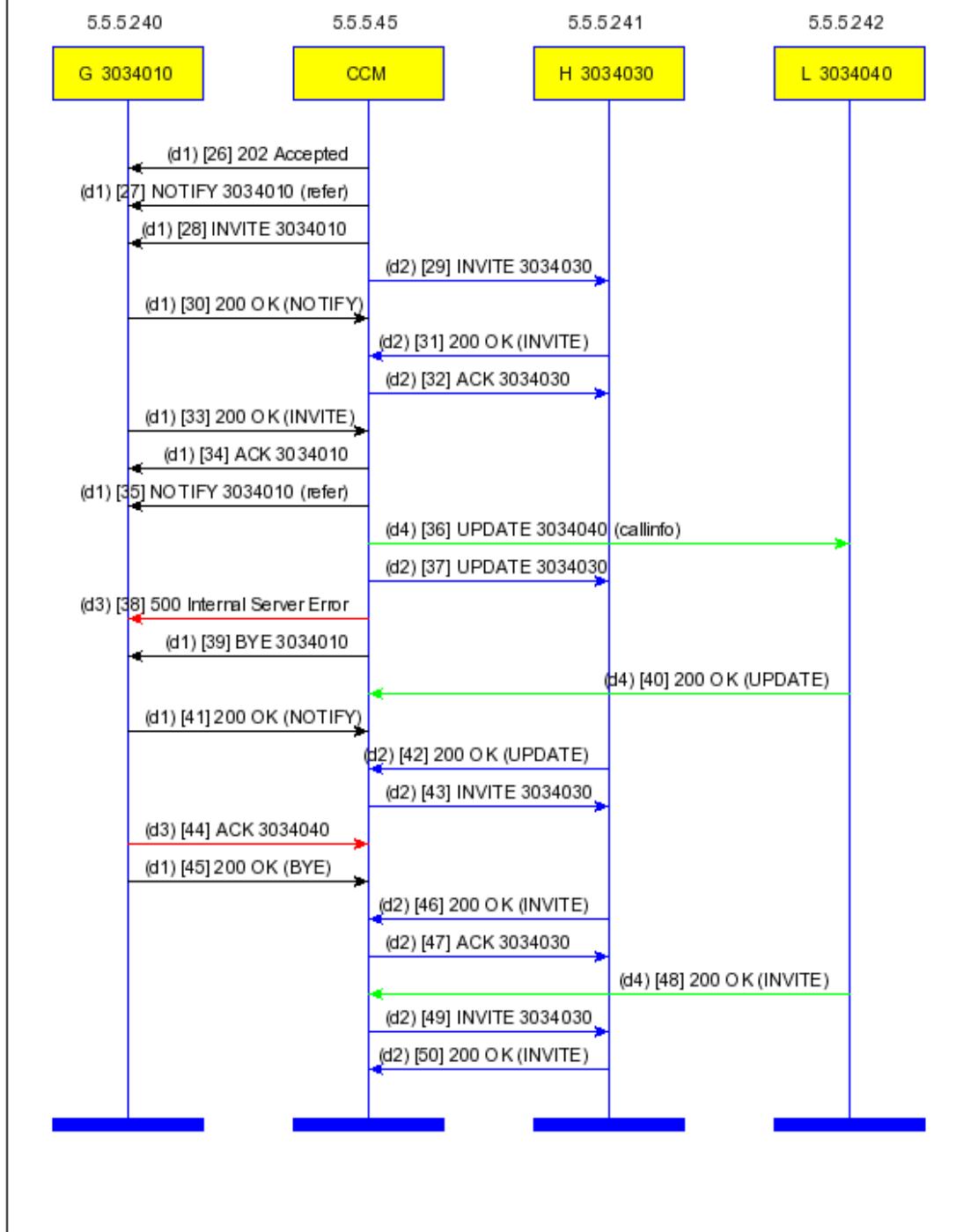
3034030 and 3034040 are connected

3034030 goes onhook

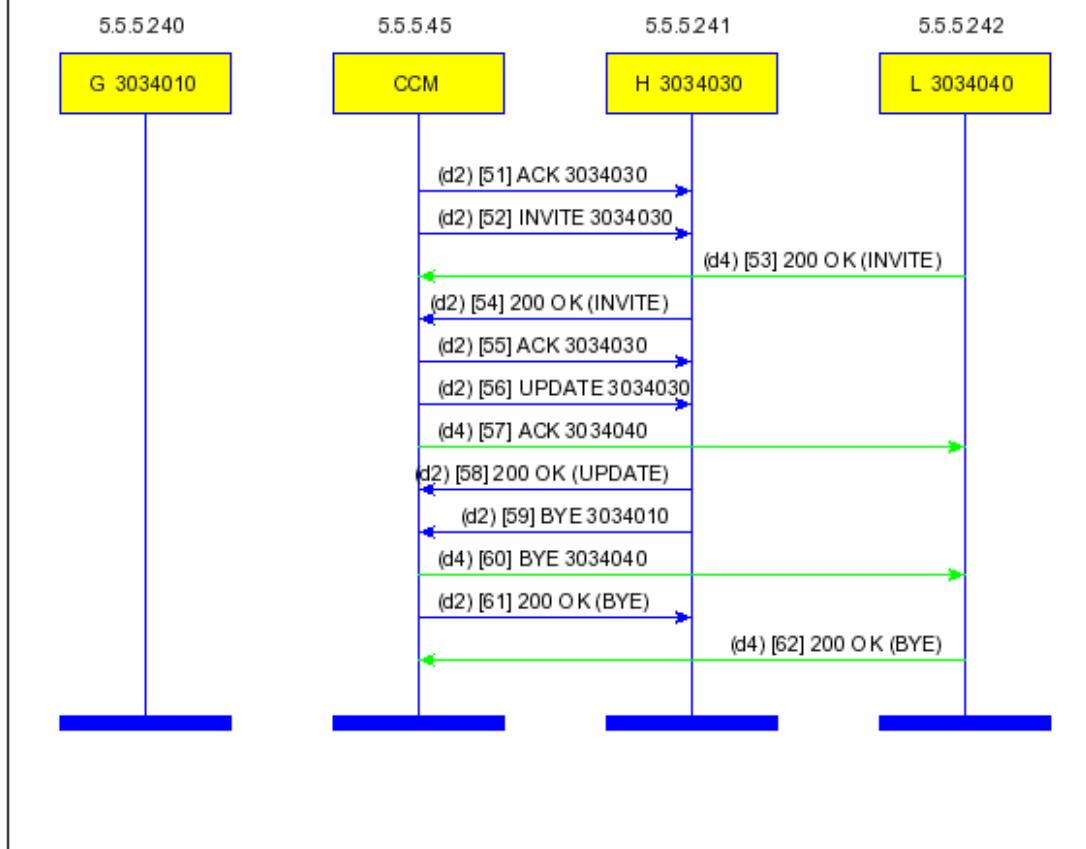
## Transfer Semi-Attended (All SIP Basic phones) Part 1 of 3



## Transfer Semi-Attended (All SIP Basic phones) Part 2 of 3



## Transfer Semi-Attended (All SIP Basic phones) Part 3 of 3



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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK248896d6  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:58:21 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 8072 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26716 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 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 5.5.5.240:5060;branch=z9hG4bK248896d6  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.45>  
 Date: Sat, 09 Dec 2006 17:58:20 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6b4e8468d5  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.241>  
 Date: Sat, 09 Dec 2006 17:58:20 GMT  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6b4e8468d5  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.241>  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:20 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[5] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6b4e8468d5  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002b6a665a62-7925dfbe  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:20 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[6] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK248896d6  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Date: Sat, 09 Dec 2006 17:58:20 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[7] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6b4e8468d5  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002b6a665a62-7925dfbe  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:21 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 19689 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17452 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

**[diagram] Call-ID:[prev][next]**  
**[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6c5dce92ae  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002b6a665a62-7925dfbe  
 Date: Sat, 09 Dec 2006 17:58:20 GMT  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26716 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK248896d6  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Date: Sat, 09 Dec 2006 17:58:20 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17452 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 5.5.5.240:5060;branch=z9hG4bK248896d6  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Date: Sat, 09 Dec 2006 17:58:20 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17452 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:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK45ff5237  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:58:22 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] INVITE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1a8edd7e  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:58:28 GMT  
 CSeq: 102 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 8072 1 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26716 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendonly

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

[13] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1a8edd7e  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Date: Sat, 09 Dec 2006 17:58:27 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 CSeq: 102 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[14] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6d61cff9fc  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002b6a665a62-7925dfbe  
 Date: Sat, 09 Dec 2006 17:58:27 GMT  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 291

v=0  
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26716 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]

[15] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6d61cff9fc  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002b6a665a62-7925dfbe  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:27 GMT  
 CSeq: 102 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 199  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 19689 1 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17452 RTP/AVP 0 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=recvonly
```

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

[16] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6e6f339788  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.241>;tag=001a2fcbb7d6002b6a665a62-7925dfbe  
 Date: Sat, 09 Dec 2006 17:58:27 GMT  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 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 5.5.5.240:5060;branch=z9hG4bK1a8edd7e  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Date: Sat, 09 Dec 2006 17:58:27 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 CSeq: 102 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 217

```
v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17452 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

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

[18] ACK sip:3034030@5.5.5.45:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1962469c  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:58:28 GMT  
 CSeq: 102 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

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

[19] INVITE sip:3034040@5.5.5.45 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23521c92  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00275f677a7a-4a6df7bb  
 To: <sip:3034040@5.5.5.45>  
 Call-ID: 001a2f8d-f17f001b-61148d0a-3eedd909@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:58:32 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

```
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional
```

```
v=0
o=Cisco-SIPUA 22863 0 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26720 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

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

**[20] SIP/2.0 100 Trying**

```
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23521c92
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00275f677a7a-4a6df7bb
To: <sip:3034040@5.5.5.45>
Date: Sat, 09 Dec 2006 17:58:31 GMT
Call-ID: 001a2f8d-f17f001b-61148d0a-3eedd909@5.5.5.240
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0
```

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

**[21] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6f744898b4
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566
To: <sip:3034040@5.5.5.242>
Date: Sat, 09 Dec 2006 17:58:31 GMT
Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
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; call-instance= 1
Alert-Info: <file://Bellcore-drl/>
Contact: <sip:3034040@5.5.5.45:5060>
Max-Forwards: 69
Content-Length: 0
```

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

**[22] SIP/2.0 100 Trying**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6f744898b4
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566
To: <sip:3034040@5.5.5.242>
Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:58:31 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

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

**[23] SIP/2.0 180 Ringing**

```
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6f744898b4
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001907c3700f-3d50dbdb
Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:58:31 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

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

**[24] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23521c92  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00275f677a7a-4a6df7bb  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228565  
 Date: Sat, 09 Dec 2006 17:58:31 GMT  
 Call-ID: 001a2f8d-f17f001b-61148d0a-3eedd909@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034040@5.5.5.45:5060>  
 Content-Length: 0

**[diagram] Call-ID: [prev][next]**  
**[25] REFER sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK770dd285  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:58:36 GMT  
 CSeq: 103 REFER  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0  
 Refer-To: <sip:3034040@5.5.5.45?Replaces=001a2f8d-f17f001b-61148d0a-3eedd909%405.5.5.240%3Bto-  
 tag%3Da4fefb43-9497-4bf5-a407-909c95e47fb7-32228565%3Bfrom-tag%3D001a2f8df17f00275f677a7a-4a6df7bb>  
 Referred-By: "3034010" <sip:3034010@5.5.5.45>

**[diagram] Call-ID: [prev][next]**  
**[26] SIP/2.0 202 Accepted**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK770dd285  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 CSeq: 103 REFER  
 Content-Length: 0  
 Contact: <sip:3034030@5.5.5.45:5060>

**[diagram] Call-ID: [prev][next]**  
**[27] NOTIFY sip:3034010@5.5.5.240:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7046494bdc  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: refer  
 Subscription-State: active;expires=60  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: message/sipfrag;version=2.0  
 Content-Length: 20

SIP/2.0 100 Trying

**[diagram] Call-ID: [prev][next]**  
**[28] INVITE sip:3034010@5.5.5.240:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7178b238a8  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Supported: timer,replaces  
 Min-SE: 1800  
 Cisco-Guid: 3647933312-1470232892-112-755303685  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 215

v=0

```

o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 17452 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]

[29] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK72232f29d2  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 103 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 289

```

v=0
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 0.0.0.0
t=0 0
m=audio 26716 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=inactive
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

```

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

[30] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7046494bdc  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Date: Sat, 09 Dec 2006 17:58:36 GMT  
 CSeq: 101 NOTIFY  
 Content-Length: 0

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

[31] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK72232f29d2  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 CSeq: 103 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 199  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```

v=0
o=Cisco-SIPUA 19689 2 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17452 RTP/AVP 0 101
c=IN IP4 5.5.5.241

```

```

a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=inactive

[diagram] Call-ID:[prev][next]
[32] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7310cfb6ae
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002b6a665a62-7925dfbe
Date: Sat, 09 Dec 2006 17:58:35 GMT
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 103 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[33] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7178b238a8
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1
Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.240
Date: Sat, 09 Dec 2006 17:58:36 GMT
CSeq: 102 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 198
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 8072 2 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26716 RTP/AVP 0 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=inactive

[diagram] Call-ID:[prev][next]
[34] ACK sip:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK74abc4580
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1
Date: Sat, 09 Dec 2006 17:58:35 GMT
Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.240
Max-Forwards: 70
CSeq: 102 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[35] NOTIFY sip:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK75f1d6721
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1
Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.240
CSeq: 103 NOTIFY
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:58:35 GMT
User-Agent: Cisco-CCM5.1
Event: refer
Subscription-State: terminated;reason=noresource
Contact: <sip:3034030@5.5.5.45:5060>
Content-Type: message/sipfrag;version=2.0
Content-Length: 16

SIP/2.0 200 OK

[diagram] Call-ID:[prev][next]
[36] UPDATE sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK76627eca5c
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001907c3700f-3d50dbdb

```

Date: Sat, 09 Dec 2006 17:58:31 GMT  
 Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 102 UPDATE  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=calling;screen=yes;privacy=off  
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= from; call-instance= 1  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[37] UPDATE sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7774cb0c25  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002b6a665a62-7925dfbe  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 104 UPDATE  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[38] SIP/2.0 500 Internal Server Error**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23521c92  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00275f677a7a-4a6df7bb  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228565  
 Date: Sat, 09 Dec 2006 17:58:31 GMT  
 Call-ID: 001a2f8d-f17f001b-61148d0a-3eedd909@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Reason: Q.850;cause=41  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[39] BYE sip:3034010@5.5.5.240:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK784af35278  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 104 BYE  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[40] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK76627eca5c  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566  
 To: <sip:3034040@5.5.5.242>;tag=001b93bb53e001907c3700f-3d50dbdb  
 Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 CSeq: 102 UPDATE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[41] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK75f1d6721  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Date: Sat, 09 Dec 2006 17:58:36 GMT  
 CSeq: 103 NOTIFY  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[42] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7774cb0c25  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002b6a665a62-7925dfbe  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 CSeq: 104 UPDATE  
 Server: Cisco-CP7960G/7.5

Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 19689 2 IN IP4 5.5.5.241  
 s=SIP Call  
 t=0 0  
 m=audio 17452 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.241  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram] Call-ID:[prev][next]**  
**[43] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK795faf1674  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe  
 Date: Sat, 09 Dec 2006 17:58:36 GMT  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 105 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[44] ACK sip:3034040@5.5.5.45 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK23521c92  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00275f677a7a-4a6df7bb  
 To: <sip:3034040@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228565  
 Call-ID: 001a2f8d-f17f001b-61148d0a-3eedd909@5.5.5.240  
 Date: Sat, 09 Dec 2006 17:58:36 GMT  
 CSeq: 101 ACK  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[45] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK784af35278  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228563  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00267b5d9815-762a46d1  
 Call-ID: 001a2f8d-f17f001a-31de5503-6c0de087@5.5.5.240  
 Date: Sat, 09 Dec 2006 17:58:37 GMT  
 CSeq: 104 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[46] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK795faf1674  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:35 GMT  
 CSeq: 105 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 19689 2 IN IP4 5.5.5.241  
 s=SIP Call  
 t=0 0

```
m=audio 17452 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[47] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7a10823b45
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002b6a665a62-7925dfbe
Date: Sat, 09 Dec 2006 17:58:36 GMT
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 105 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 215

v=0
o=CiscoSystemsCCM-SIP 2000 4 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.45
t=0 0
m=audio 4000 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]
[48] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6f744898b4
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566
To: <sip:3034040@5.5.5.242>;tag=001b93bb53e001907c3700f-3d50dbdb
Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:58:39 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 20345 0 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28522 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[49] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7b774bbad4
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002b6a665a62-7925dfbe
Date: Sat, 09 Dec 2006 17:58:39 GMT
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 106 INVITE
Max-Forwards: 70
Contact: <sip:3034010@5.5.5.45:5060>
Expires: 180
```

Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 214

v=0  
o=CiscoSystemsCCM-SIP 2000 5 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 0.0.0.0  
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]**  
**[50] SIP/2.0 200 OK**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7b774bbad4  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe  
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:58:39 GMT  
CSeq: 106 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 199  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 19689 4 IN IP4 5.5.5.241  
s=SIP Call  
t=0 0  
m=audio 17452 RTP/AVP 0 101  
c=IN IP4 5.5.5.241  
a=rtpmap:0 PCMU/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15  
a=inactive

**[diagram] Call-ID:[prev][next]**  
**[51] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7c484dbb3a  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe  
Date: Sat, 09 Dec 2006 17:58:39 GMT  
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 106 ACK  
Allow-Events: presence  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[52] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7d60271add  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe  
Date: Sat, 09 Dec 2006 17:58:39 GMT  
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
CSeq: 107 INVITE  
Max-Forwards: 70  
Contact: <sip:3034010@5.5.5.45:5060>  
Expires: 180  
Allow-Events: presence  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[53] SIP/2.0 200 OK**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK6f744898b4  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001907c3700f-3d50dbdb

```

Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:58:39 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 20345 0 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 28522 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[54] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7d60271add
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:58:39 GMT
CSeq: 107 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034030@5.5.5.241:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 19689 4 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17452 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[55] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7e32fbed34
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002b6a665a62-7925dfbe
Date: Sat, 09 Dec 2006 17:58:39 GMT
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 107 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 6 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.242
t=0 0
m=audio 28522 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]  
[56] UPDATE sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7f6be7a7f  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6002b6a665a62-7925dfbe  
Date: Sat, 09 Dec 2006 17:58:39 GMT  
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 108 UPDATE  
Contact: <sip:3034010@5.5.5.45:5060>  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[57] ACK sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8039dbdc01  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001907c3700f-3d50dbdb  
Date: Sat, 09 Dec 2006 17:58:31 GMT  
Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17452 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]  
[58] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK7f6be7a7f  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6002b6a665a62-7925dfbe  
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:58:40 GMT  
CSeq: 108 UPDATE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 19689 5 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17452 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[59] BYE sip:3034010@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK7b7d0f37  
From: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6002b6a665a62-7925dfbe  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:58:43 GMT  
CSeq: 101 BYE  
User-Agent: Cisco-CP7960G/7.5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[60] BYE sip:3034040@5.5.5.242:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK81534b0a34  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566  
 To: <sip:3034040@5.5.242>;tag=0018b93bb53e001907c3700f-3d50dbdb  
 Date: Sat, 09 Dec 2006 17:58:31 GMT  
 Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 103 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [61] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK7b7d0f37  
 From: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002b6a665a62-7925dfbe  
 To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228564  
 Date: Sat, 09 Dec 2006 17:58:43 GMT  
 Call-ID: d96f0b80-57a1f93c-71-2d050505@5.5.5.45  
 CSeq: 101 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [62] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK81534b0a34  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228566  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001907c3700f-3d50dbdb  
 Call-ID: dffd8300-57a1f947-73-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:58:43 GMT  
 CSeq: 103 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

### 5.3 Transfer Unattended (SIP Basic phones)

Title: Transfer Unattended (SIP Basic phones)

Description:

G calls H and then performs a consultative transfer to L.

Note a "SIP Basic" phone is a 7960 configured with a pre-SDGA image (P0S3-07-5-00) to simulate a 3rd party phone. Finally, "transfer unattended" is sometimes referred to as "Blind Transfer"

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 is ringing

3034030 answers

3034010 presses BlindXfer softkey

3034010 dials 3034040

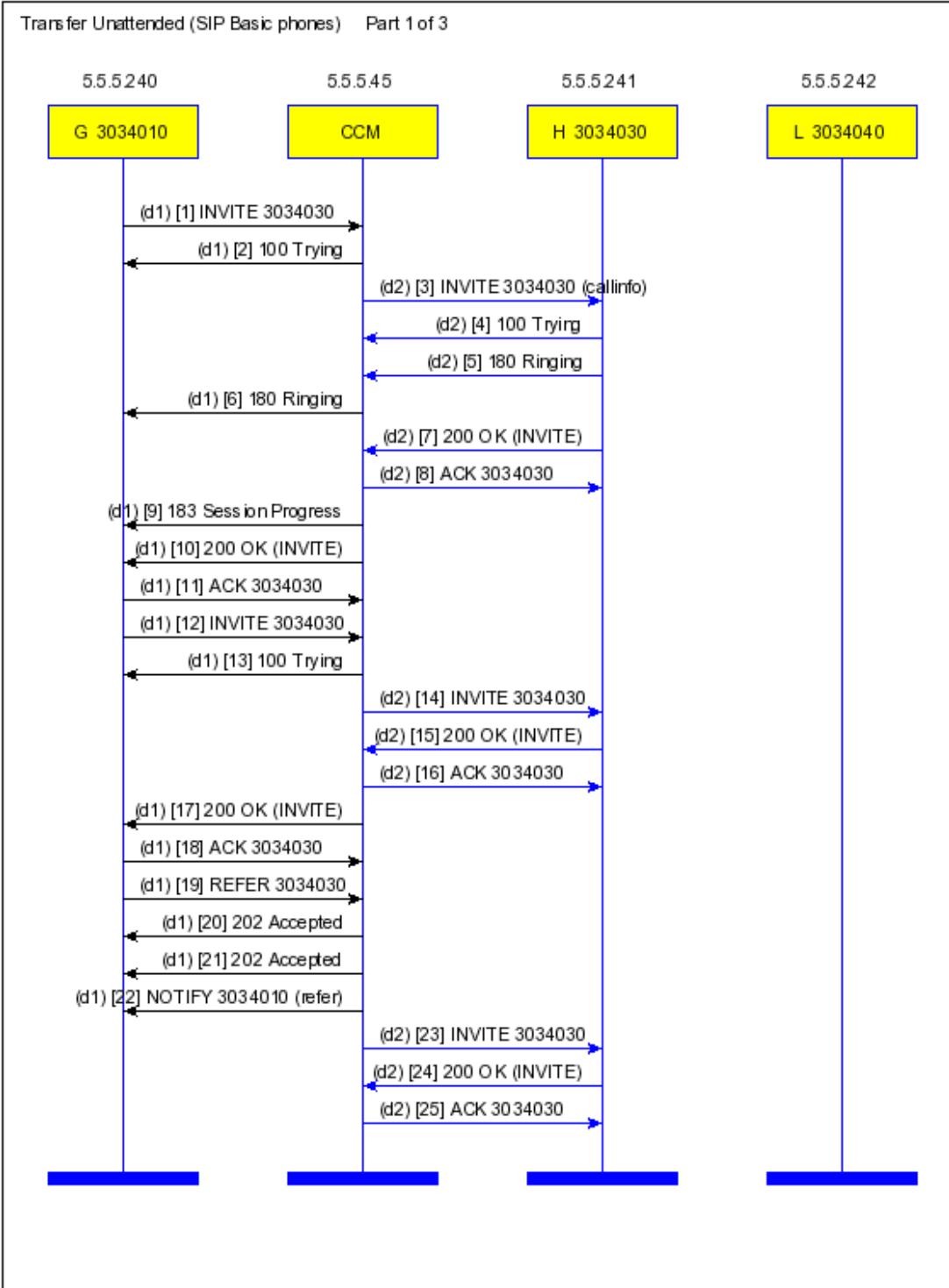
Call is cleared from 3034010

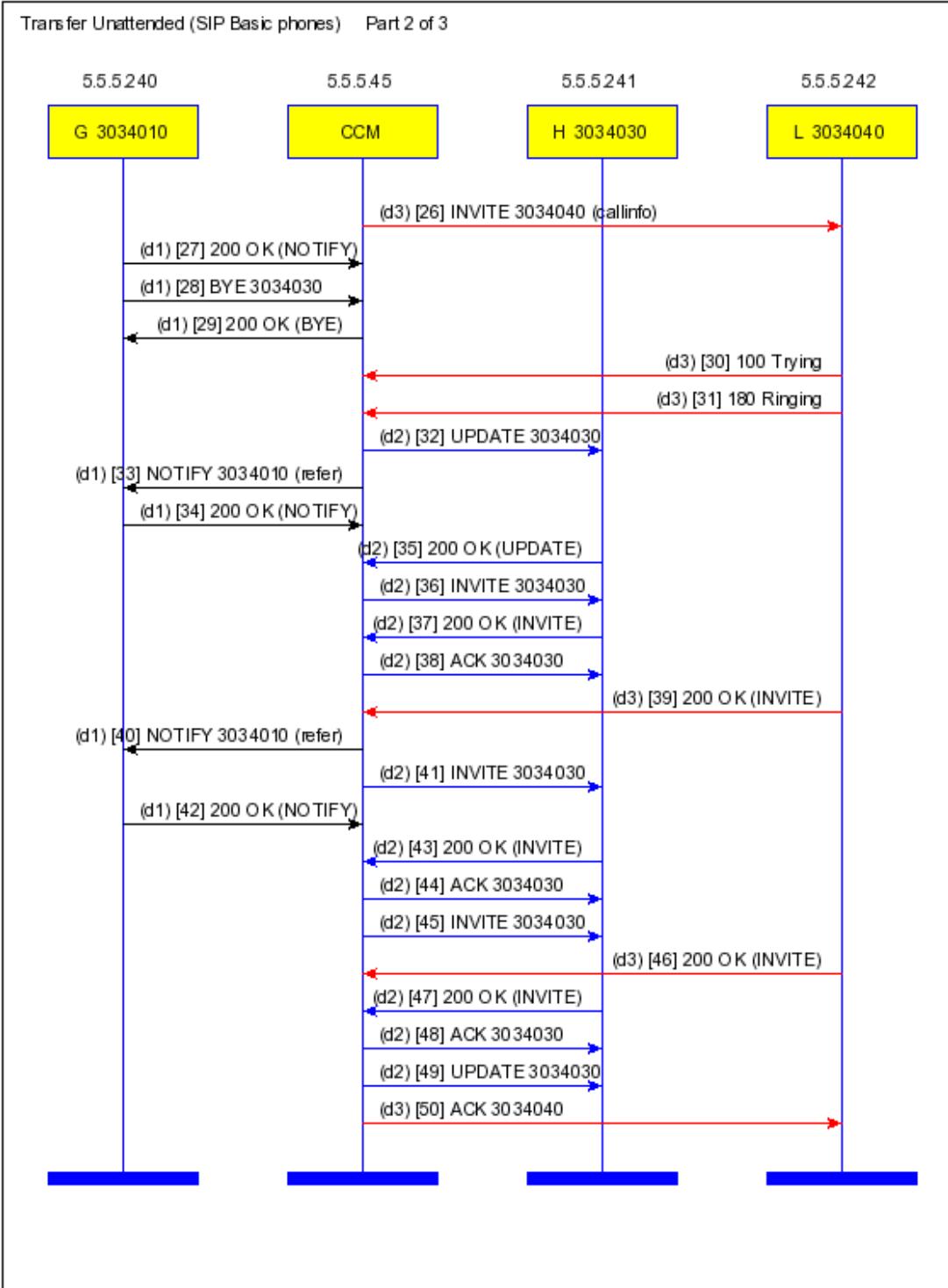
3034040 is ringing

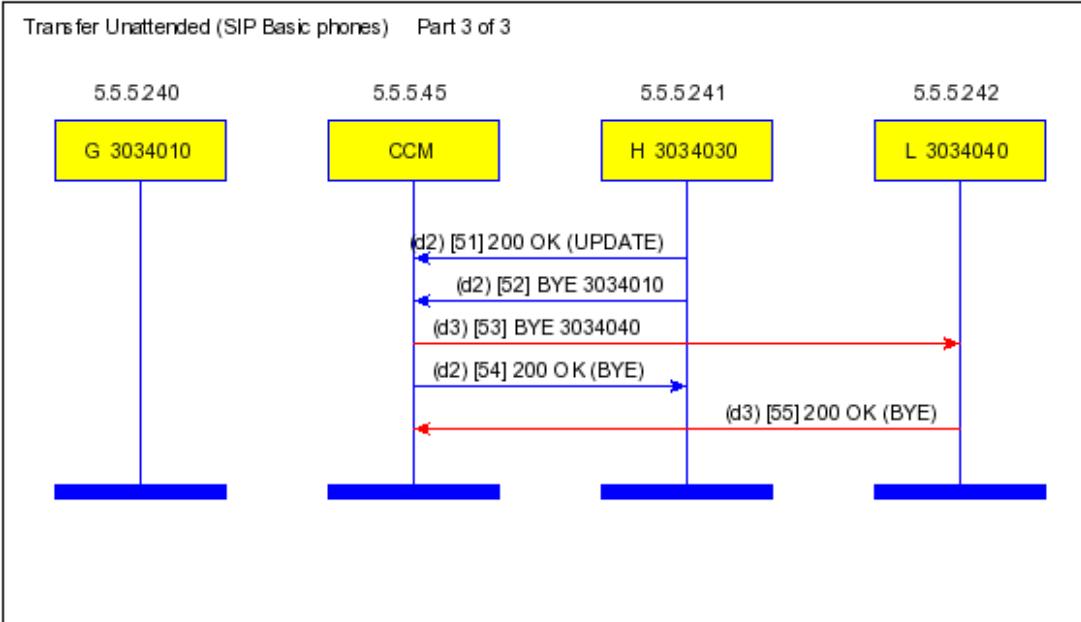
3034040 answers

3034030 and 3034040 are connected

3034030 goes onhook







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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK6a9c3b7c  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
 To: <sip:3034030@5.5.5.45>  
 Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:59:33 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 7210 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26728 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 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 5.5.5.240:5060;branch=z9hG4bK6a9c3b7c  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
 To: <sip:3034030@5.5.5.45>  
 Date: Sat, 09 Dec 2006 17:59:33 GMT  
 Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK831a2a2ab3  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228571  
 To: <sip:3034030@5.5.5.241>  
 Date: Sat, 09 Dec 2006 17:59:33 GMT  
 Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK831a2a2ab3  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228571  
 To: <sip:3034030@5.5.5.241>  
 Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:59:32 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK831a2a2ab3  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002d2b0abd23-30d6753d  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:33 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK6a9c3b7c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
Date: Sat, 09 Dec 2006 17:59:33 GMT  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK831a2a2ab3  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002d2b0abd23-30d6753d  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:34 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 15964 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17456 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK841f2c6008  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002d2b0abd23-30d6753d  
Date: Sat, 09 Dec 2006 17:59:33 GMT  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26728 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK6a9c3b7c  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228570  
 Date: Sat, 09 Dec 2006 17:59:33 GMT  
 Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17456 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 5.5.5.240:5060;branch=z9hG4bK6a9c3b7c  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228570  
 Date: Sat, 09 Dec 2006 17:59:33 GMT  
 Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17456 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:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK251acbc7  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228570  
 Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:59:36 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] INVITE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK30a71603  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228570  
 Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:59:38 GMT  
 CSeq: 102 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes

Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 7210 1 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26728 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendonly

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

[13] SIP/2.0 100 Trying

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK30a71603  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
 Date: Sat, 09 Dec 2006 17:59:37 GMT  
 Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
 CSeq: 102 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[14] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK852cb2a105  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d  
 Date: Sat, 09 Dec 2006 17:59:37 GMT  
 Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 102 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 291

v=0  
 o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26728 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]

[15] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK852cb2a105  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d  
 Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:59:37 GMT  
 CSeq: 102 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 199  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```

v=0
o=Cisco-SIPUA 15964 1 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17456 RTP/AVP 0 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=recvonly

[diagram] Call-ID:[prev][next]
[16] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8661a22553
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571
To: <sip:3034030@5.5.241>;tag=001a2fcbb7d6002d2b0abd23-30d6753d
Date: Sat, 09 Dec 2006 17:59:37 GMT
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45
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 5.5.5.240:5060;branch=z9hG4bK30a71603
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570
Date: Sat, 09 Dec 2006 17:59:37 GMT
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240
CSeq: 102 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Supported: replaces
Content-Type: application/sdp
Content-Length: 217

v=0
o=CiscoSystemsCCM-SIP 2000 2 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17456 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=recvonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]
[18] ACK sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1a17200c
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:59:38 GMT
CSeq: 102 ACK
User-Agent: Cisco-CP7960G/7.5
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[19] REFER sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK2cfec9c7c
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240
Max-Forwards: 70
Date: Sat, 09 Dec 2006 17:59:42 GMT
CSeq: 103 REFER
User-Agent: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.5.240:5060>
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
Refer-To: sip:3034040@5.5.5.45
Referred-By: "3034010" <sip:3034010@5.5.5.45>

```

[diagram] Call-ID:[prev][next]  
[20] SIP/2.0 202 Accepted  
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK2cfe9c7c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
CSeq: 103 REFER  
Content-Length: 0  
Contact: <sip:3034030@5.5.5.45:5060>

[diagram] Call-ID:[prev][next]  
[21] SIP/2.0 202 Accepted  
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK2cfe9c7c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
CSeq: 103 REFER  
Content-Length: 0  
Contact: <sip:3034030@5.5.5.45:5060>

[diagram] Call-ID:[prev][next]  
[22] NOTIFY sip:3034010@5.5.5.240:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK87129bc533  
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
CSeq: 101 NOTIFY  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
User-Agent: Cisco-CCM5.1  
Event: refer  
Subscription-State: active;expires=60  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Type: message/sipfrag;version=2.0  
Content-Length: 20

SIP/2.0 100 Trying

[diagram] Call-ID:[prev][next]  
[23] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK881401176d  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
CSeq: 103 INVITE  
Max-Forwards: 70  
Contact: <sip:3034010@5.5.5.45:5060>  
Expires: 180  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 289

v=0  
o=CiscoSystemsCCM-SIP 2000 3 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 0.0.0.0  
t=0 0  
m=audio 26728 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=inactive  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15

[diagram] Call-ID:[prev][next]  
[24] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK881401176d

From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002d2b0abd23-30d6753d  
Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
CSeq: 103 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 199  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 15964 2 IN IP4 5.5.5.241  
s=SIP Call  
t=0 0  
m=audio 17456 RTP/AVP 0 101  
c=IN IP4 5.5.5.241  
a=rtpmap:0 PCMU/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15  
a=inactive

**[diagram] Call-ID:[prev][next]**  
**[25] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK895b2ebf89  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002d2b0abd23-30d6753d  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 103 ACK  
Allow-Events: presence  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[26] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8ac173077  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228573  
To: <sip:3034040@5.5.5.242>  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 9b6aa00-57alf98d-7b-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-dr1/>  
Contact: <sip:3034040@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[27] SIP/2.0 200 OK**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK87129bc533  
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
Date: Sat, 09 Dec 2006 17:59:42 GMT  
CSeq: 101 NOTIFY  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[28] BYE sip:3034030@5.5.5.45:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1a422239  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:59:42 GMT  
CSeq: 104 BYE  
User-Agent: Cisco-CP7960G/7.5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[29] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK1a422239  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
CSeq: 104 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[30] SIP/2.0 100 Trying  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8ac173077  
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228573  
To: <sip:3034040@5.5.5.242>  
Call-ID: 9b6aa00-57a1f98d-7b-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[31] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8ac173077  
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228573  
To: <sip:3034040@5.5.5.242>;tag=001b93bb53e001c2b9921b6-1eb92b9c  
Call-ID: 9b6aa00-57a1f98d-7b-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:42 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[32] UPDATE sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8ba950063  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 104 UPDATE  
Contact: <sip:3034010@5.5.5.45:5060>  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[33] NOTIFY sip:3034010@5.5.5.240:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8c61b19f88  
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
CSeq: 102 NOTIFY  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:59:42 GMT  
User-Agent: Cisco-CCM5.1  
Event: refer  
Subscription-State: active;expires=59  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Type: message/sipfrag;version=2.0  
Content-Length: 21

SIP/2.0 180 Ringing

[diagram] Call-ID:[prev][next]  
[34] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8c61b19f88  
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
Date: Sat, 09 Dec 2006 17:59:42 GMT  
CSeq: 102 NOTIFY  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[35] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8ba950063  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002d2b0abd23-30d6753d  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
CSeq: 104 UPDATE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 15964 2 IN IP4 5.5.5.241  
s=SIP Call  
t=0 0  
m=audio 17456 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.241  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15  
a=sendrecv

[diagram] Call-ID:[prev][next]  
[36] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8d4bc2a882  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002d2b0abd23-30d6753d  
Date: Sat, 09 Dec 2006 17:59:42 GMT  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
CSeq: 105 INVITE  
Max-Forwards: 70  
Contact: <sip:3034010@5.5.5.45:5060>  
Expires: 180  
Allow-Events: presence  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[37] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8d4bc2a882  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6002d2b0abd23-30d6753d  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:42 GMT  
CSeq: 105 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 15964 2 IN IP4 5.5.5.241  
s=SIP Call  
t=0 0  
m=audio 17456 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.241  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15  
a=sendrecv

[diagram] Call-ID:[prev][next]  
[38] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8e7be355a1

From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6002d2b0abd23-30d6753d  
 Date: Sat, 09 Dec 2006 17:59:42 GMT  
 Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 105 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 215

v=0  
 o=CiscoSystemsCCM-SIP 2000 4 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.45  
 t=0 0  
 m=audio 4000 RTP/AVP 0 101  
 a=rtpmap:0 PCMU/8000  
 a=ptime:20  
 a=sendonly  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15

**[diagram] Call-ID:[prev][next]**  
**[39] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8ac173077  
 From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228573  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001c2b9921b6-1eb92b9c  
 Call-ID: 9b6aa00-57alf98d-7b-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:59:46 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 7071 0 IN IP4 5.5.5.242  
 s=SIP Call  
 t=0 0  
 m=audio 28530 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.242  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram] Call-ID:[prev][next]**  
**[40] NOTIFY sip:3034010@5.5.5.240:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8f555b477e  
 From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228570  
 To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05  
 Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240  
 CSeq: 103 NOTIFY  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 17:59:46 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: refer  
 Subscription-State: terminated;reason=noresource  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: message/sipfrag;version=2.0  
 Content-Length: 16

SIP/2.0 200 OK

**[diagram] Call-ID:[prev][next]**  
**[41] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9012be5864  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d6002d2b0abd23-30d6753d  
 Date: Sat, 09 Dec 2006 17:59:46 GMT  
 Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800

```
User-Agent: Cisco-CCM5.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 106 INVITE
Max-Forwards: 70
Contact: <sip:3034010@5.5.5.45:5060>
Expires: 180
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 214

v=0
o=CiscoSystemsCCM-SIP 2000 5 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 0.0.0.0
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]
[42] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8f555b477e
From: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228570
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002a001b7c37-334bcc05
Call-ID: 001a2f8d-f17f001d-680c386b-2456de25@5.5.5.240
Date: Sat, 09 Dec 2006 17:59:47 GMT
CSeq: 103 NOTIFY
Content-Length: 0

[diagram] Call-ID:[prev][next]
[43] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9012be5864
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228571
To: <sip:3034030@5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d
Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45
Date: Sat, 09 Dec 2006 17:59:46 GMT
CSeq: 106 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034030@5.5.5.241:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 199
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 15964 4 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17456 RTP/AVP 0 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=inactive

[diagram] Call-ID:[prev][next]
[44] ACK sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK915d8f882e
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228571
To: <sip:3034030@5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d
Date: Sat, 09 Dec 2006 17:59:46 GMT
Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 106 ACK
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[45] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9277f23d65
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228571
To: <sip:3034030@5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d
Date: Sat, 09 Dec 2006 17:59:47 GMT
Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45
```

Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 107 INVITE  
 Max-Forwards: 70  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Expires: 180  
 Allow-Events: presence  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[46] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK8ac173077  
 From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228573  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001c2b9921b6-1eb92b9c  
 Call-ID: 9b6aa00-57alf98d-7b-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:59:46 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034040@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 7071 0 IN IP4 5.5.5.242  
 s=SIP Call  
 t=0 0  
 m=audio 28530 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.242  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram] Call-ID:[prev][next]**  
**[47] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9277f23d65  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d  
 Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 17:59:46 GMT  
 CSeq: 107 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 15964 4 IN IP4 5.5.5.241  
 s=SIP Call  
 t=0 0  
 m=audio 17456 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.241  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram] Call-ID:[prev][next]**  
**[48] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK935dc7e8d7  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d  
 Date: Sat, 09 Dec 2006 17:59:47 GMT  
 Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 107 ACK

Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 6 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.242  
t=0 0  
m=audio 28530 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]**  
**[49] UPDATE sip:3034030@5.5.5.241:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9479e222a5  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d  
Date: Sat, 09 Dec 2006 17:59:47 GMT  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 108 UPDATE  
Contact: <sip:3034010@5.5.5.45:5060>  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=calling;screen=yes;privacy=off  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[50] ACK sip:3034040@5.5.5.242:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK95527b4268  
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228573  
To: <sip:3034040@5.5.5.242>;tag=001b93bb53e001c2b9921b6-1eb92b9c  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 9b6aa00-57a1f98d-7b-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.241  
t=0 0  
m=audio 17456 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]**  
**[51] SIP/2.0 200 OK**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK9479e222a5  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6002d2b0abd23-30d6753d  
Call-ID: 4f1f600-57a1f985-7a-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:47 GMT  
CSeq: 108 UPDATE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 15964 5 IN IP4 5.5.5.241  
s=SIP Call  
t=0 0  
m=audio 17456 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.241  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15  
a=sendrecv

[diagram] Call-ID:[prev][next]  
[52] BYE sip:3034010@5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK5e911707  
From: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002d2b0abd23-30d6753d  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 17:59:50 GMT  
CSeq: 101 BYE  
User-Agent: Cisco-CP7960G/7.5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[53] BYE sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK962386e263  
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228573  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001c2b9921b6-1eb92b9c  
Date: Sat, 09 Dec 2006 17:59:41 GMT  
Call-ID: 9b6aa00-57alf98d-7b-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[54] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK5e911707  
From: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6002d2b0abd23-30d6753d  
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228571  
Date: Sat, 09 Dec 2006 17:59:51 GMT  
Call-ID: 4f1f600-57alf985-7a-2d050505@5.5.5.45  
CSeq: 101 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[55] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK962386e263  
From: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228573  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e001c2b9921b6-1eb92b9c  
Call-ID: 9b6aa00-57alf98d-7b-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 17:59:51 GMT  
CSeq: 102 BYE  
Server: Cisco-CP7960G/7.5  
Content-Length: 0

## 6. Call Forwarding

### 6.1 Call Forward All

Title: Call Forward All

Description:

(F ---> G --CFA--> H)

F calls line 3034010 on B while CCM has line 3034010 on G configured to forward all calls to H.

Notice the "Diversion:" header in the INVITE to H. It uses "unconditional" to indicate Call Forward All.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = F, Line = 3033100, IP = 5.5.5.226, Model = SIP 7960

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3033100 calls 3034010

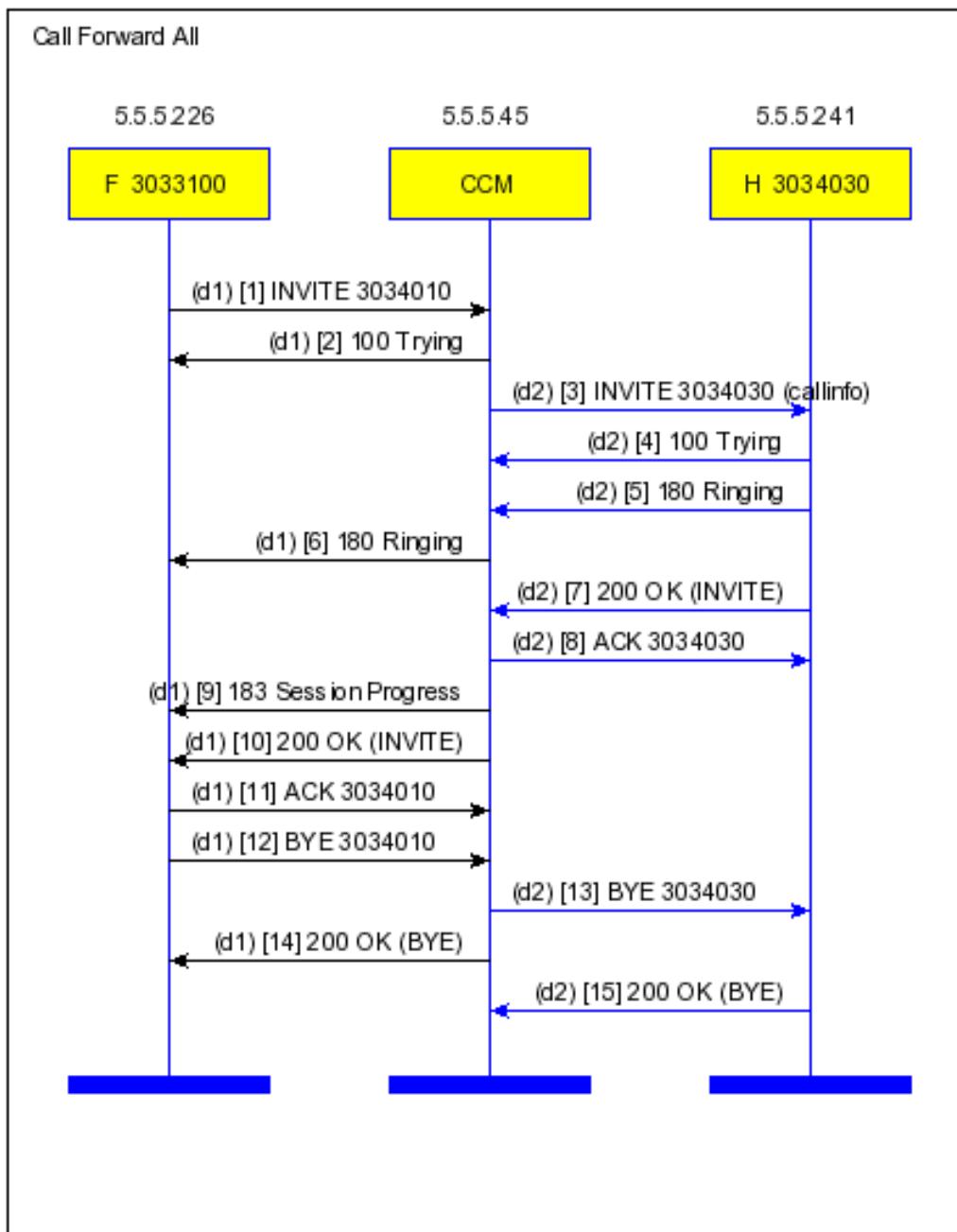
3034010 never gets ringing (CCM forwards)

3034030 rings

3034030 answers

3033100 and 3034030 are connected

3033100 goes onhook



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

**[1] INVITE sip:3034010@titan-pub SIP/2.0**

Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK362708b1  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001610a676c9-4297d53c  
 To: <sip:3034010@titan-pub>  
 Call-ID: 000ab8f5-aadf000d-701dcb33-5ef2a770@5.5.226  
 Max-Forwards: 70  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/8.0  
 Contact: <sip:3033100@5.5.226:5060;transport=udp>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 270  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 17730 0 IN IP4 5.5.5.226  
 s=SIP Call  
 t=0 0  
 m=audio 22550 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.226  
 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 5.5.226:5060;branch=z9hG4bK362708b1  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001610a676c9-4297d53c  
 To: <sip:3034010@titan-pub>  
 Date: Sun, 17 Dec 2006 23:12:57 GMT  
 Call-ID: 000ab8f5-aadf000d-701dcb33-5ef2a770@5.5.226  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKd94b7a0875  
 Remote-Party-ID: "Tripti" <sip:3033100@5.5.45>;party=calling;screen=yes;privacy=off  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228618  
 To: <sip:3034030@5.5.241>  
 Date: Sun, 17 Dec 2006 23:12:57 GMT  
 Call-ID: 204ea800-5851cef9-3fa9-2d050505@5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl1/>  
 Contact: <sip:3034030@5.5.45:5060>  
 Diversion: "SIP Basic 3034010" <sip:3034010@5.5.45>;reason=unconditional;privacy=off;screen=yes  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKd94b7a0875  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228618  
 To: <sip:3034030@5.5.241>  
 Call-ID: 204ea800-5851cef9-3fa9-2d050505@5.5.45  
 Date: Sun, 17 Dec 2006 23:12:56 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKd94b7a0875  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228618  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d619545ee5da87-03e2c584  
Call-ID: 204ea800-5851cef9-3fa9-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:12:56 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK362708b1  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001610a676c9-4297d53c  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228615  
Date: Sun, 17 Dec 2006 23:12:57 GMT  
Call-ID: 000ab8f5-aadf000d-701dcb33-5ef2a770@5.5.5.226  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034010@5.5.5.45:5060>  
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;  
call-instance= 1  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKd94b7a0875  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228618  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d619545ee5da87-03e2c584  
Call-ID: 204ea800-5851cef9-3fa9-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:13:02 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 21150 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17480 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKda1480f13c  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228618  
To: <sip:3034030@5.5.5.241>;tag=001a2fcb77d619545ee5da87-03e2c584  
Date: Sun, 17 Dec 2006 23:12:57 GMT  
Call-ID: 204ea800-5851cef9-3fa9-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.226
t=0 0
m=audio 22550 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] SIP/2.0 183 Session Progress
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK362708b1
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001610a676c9-4297d53c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228615
Date: Sun, 17 Dec 2006 23:12:57 GMT
Call-ID: 000ab8f5-aadf000d-701dcb33-5ef2a770@5.5.5.226
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034010@5.5.5.45:5060>
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
call-instance= 1
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17480 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 5.5.5.226:5060;branch=z9hG4bK362708b1
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001610a676c9-4297d53c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228615
Date: Sun, 17 Dec 2006 23:12:57 GMT
Call-ID: 000ab8f5-aadf000d-701dcb33-5ef2a770@5.5.5.226
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034010@5.5.5.45:5060>
Supported: replaces
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; call-instance= 1
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17480 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:3034010@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK219ae09e
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001610a676c9-4297d53c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228615
Call-ID: 000ab8f5-aadf000d-701dcb33-5ef2a770@5.5.5.226
Max-Forwards: 70
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/8.0
Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[12] BYE sip:3034010@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK084d5d0d
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001610a676c9-4297d53c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228615
Call-ID: 000ab8f5-aadf000d-701dcb33-5ef2a770@5.5.5.226
Max-Forwards: 70
CSeq: 102 BYE

```

User-Agent: Cisco-CP7960G/8.0  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[13] BYE sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKdb598471c  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228618  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d619545ee5da87-03e2c584  
Date: Sun, 17 Dec 2006 23:12:57 GMT  
Call-ID: 204ea800-5851cef9-3fa9-2d050505@5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[14] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK084d5d0d  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001610a676c9-4297d53c  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228615  
Date: Sun, 17 Dec 2006 23:13:09 GMT  
Call-ID: 000ab8f5-aadf000d-701dcbb33-5ef2a770@5.5.5.226  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[15] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKdb598471c  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228618  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb7d619545ee5da87-03e2c584  
Call-ID: 204ea800-5851cef9-3fa9-2d050505@5.5.45  
Date: Sun, 17 Dec 2006 23:13:08 GMT  
CSeq: 102 BYE  
Server: Cisco-CP7960G/7.5  
Content-Length: 0

## 6.2 Call Forward No Answer

Title: Call Forward No Answer

Description:

(F ---> G ---CFNA---> H)

F calls line 3034010 on G while CCM has line 3034010 on G configured with Call Forward No Answer to C after 5 seconds. G does not answer within 5 seconds and the call is forwarded to H.

Notice the "Diversion:" header in the INVITE to H. It uses "no-answer" to indicate Call Forward No Answer.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = F, Line = 3033100, IP = 5.5.5.226, Model = SIP 7960

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3033100 calls 3034010

3034010 rings for about 5 seconds but is not answered

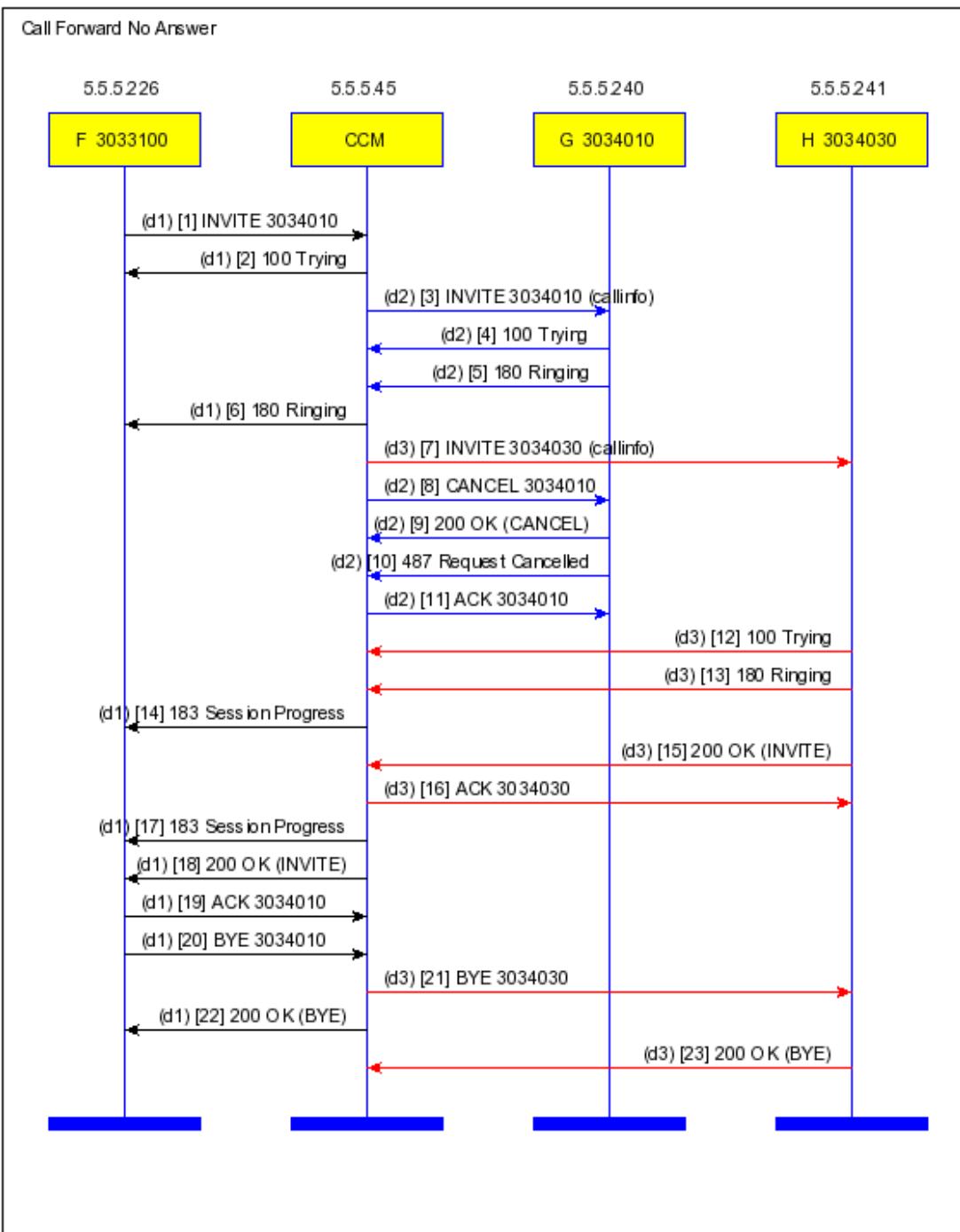
3034030 rings

The call to 3034010 is cancelled

3034030 answers

3033100 and 3034030 are connected

3033100 goes onhook



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

[1] **INVITE sip:3034010@titan-pub SIP/2.0**

Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK421f8d01  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c  
 To: <sip:3034010@titan-pub>  
 Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.226  
 Max-Forwards: 70  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/8.0  
 Contact: <sip:3033100@5.5.226:5060;transport=udp>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 269  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 7343 0 IN IP4 5.5.5.226  
 s=SIP Call  
 t=0 0  
 m=audio 16950 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.226  
 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 5.5.226:5060;branch=z9hG4bK421f8d01  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c  
 To: <sip:3034010@titan-pub>  
 Date: Sun, 17 Dec 2006 23:25:53 GMT  
 Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.226  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[3] **INVITE sip:3034010@5.5.240:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKea7568330c  
 Remote-Party-ID: "Tripti" <sip:3033100@5.5.45>;party=calling;screen=yes;privacy=off  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228620  
 To: <sip:3034010@5.5.240>  
 Date: Sun, 17 Dec 2006 23:25:53 GMT  
 Call-ID: eed6dc00-5851d201-3fd1-2d050505@5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034010@5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

[4] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKea7568330c  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228620  
 To: <sip:3034010@5.5.240>  
 Call-ID: eed6dc00-5851d201-3fd1-2d050505@5.5.45  
 Date: Sun, 17 Dec 2006 23:25:54 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.240:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.240>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

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

[5] **SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKea7568330c  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228620  
 To: <sip:3034010@5.5.5.240>;tag=001a2f8df17f000524b91729-09421e4c  
 Call-ID: eed6dc00-5851d201-3fd1-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 23:25:54 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[6] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK421f8d01  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c  
 To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228619  
 Date: Sun, 17 Dec 2006 23:25:53 GMT  
 Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.5.226  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;  
 call-instance= 1  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[7] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKeb106a932b  
 Remote-Party-ID: "Tripti" <sip:3033100@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228623  
 To: <sip:3034030@5.5.5.241>  
 Date: Sun, 17 Dec 2006 23:25:59 GMT  
 Call-ID: f26a6300-5851d207-3fd2-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Diversion: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;reason=no-answer;privacy=off;screen=yes  
 Max-Forwards: 69  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[8] CANCEL sip:3034010@5.5.5.240:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKea7568330c  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228620  
 To: <sip:3034010@5.5.5.240>  
 Date: Sun, 17 Dec 2006 23:25:53 GMT  
 Call-ID: eed6dc00-5851d201-3fd1-2d050505@5.5.5.45  
 CSeq: 101 CANCEL  
 Max-Forwards: 70  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[9] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKea7568330c  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228620  
 To: <sip:3034010@5.5.5.240>;tag=001a2f8df17f000524b91729-09421e4c  
 Call-ID: eed6dc00-5851d201-3fd1-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 23:25:59 GMT  
 CSeq: 101 CANCEL  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[10] SIP/2.0 487 Request Cancelled**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKea7568330c  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228620  
 To: <sip:3034010@5.5.5.240>;tag=001a2f8df17f000524b91729-09421e4c  
 Call-ID: eed6dc00-5851d201-3fd1-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 23:25:59 GMT  
 CSeq: 101 INVITE

Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[11] ACK sip:3034010@5.5.5.240:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKea7568330c  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228620  
 To: <sip:3034010@5.5.5.240>;tag=001a2f8df17f000524b91729-09421e4c  
 Date: Sun, 17 Dec 2006 23:25:53 GMT  
 Call-ID: eed6dc00-5851d201-3fd1-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] SIP/2.0 100 Trying**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKeb106a932b  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228623  
 To: <sip:3034030@5.5.5.241>  
 Call-ID: f26a6300-5851d207-3fd2-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 23:25:57 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[13] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKeb106a932b  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228623  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d600061ecd741c-050a08c9  
 Call-ID: f26a6300-5851d207-3fd2-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 23:25:58 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[14] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK421f8d01  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c  
 To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228619  
 Date: Sun, 17 Dec 2006 23:25:53 GMT  
 Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.5.226  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034010@5.5.5.45:5060>  
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;  
 call-instance= 1  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[15] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKeb106a932b  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228623  
 To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d600061ecd741c-050a08c9  
 Call-ID: f26a6300-5851d207-3fd2-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 23:26:01 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session/handling=optional

v=0

```

o=Cisco-SIPUA 3875 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 23752 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
a=sendrecv

```

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

**[16] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**

```

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKec340ff961
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228623
To: <sip:3034030@5.5.241>;tag=001a2fc77d600061ecd741c-050a08c9
Date: Sun, 17 Dec 2006 23:25:59 GMT
Call-ID: f26a6300-5851d207-3fd2-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 205

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.226
t=0 0
m=audio 16950 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]**

**[17] SIP/2.0 183 Session Progress**

```

Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK421f8d01
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228619
Date: Sun, 17 Dec 2006 23:25:53 GMT
Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.5.226
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034010@5.5.5.45:5060>
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
call-instance= 1
Content-Type: application/sdp
Content-Length: 205

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 23752 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]**

**[18] SIP/2.0 200 OK**

```

Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK421f8d01
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228619
Date: Sun, 17 Dec 2006 23:25:53 GMT
Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.5.226
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034010@5.5.5.45:5060>
Supported: replaces
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; call-instance= 1
Content-Type: application/sdp
Content-Length: 205

```

```

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 23752 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]
[19] ACK sip:3034010@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK50b37959
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228619
Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.5.226
Max-Forwards: 70
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/8.0
Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[20] BYE sip:3034010@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK468136fb
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228619
Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.5.226
Max-Forwards: 70
CSeq: 102 BYE
User-Agent: Cisco-CP7960G/8.0
Content-Length: 0

[diagram] Call-ID:[prev][next]
[21] BYE sip:3034030@5.5.5.241:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKed1bc5cf6b
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228623
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600061ecd741c-050a08c9
Date: Sun, 17 Dec 2006 23:25:59 GMT
Call-ID: f26a6300-5851d207-3fd2-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[22] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK468136fb
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf001d7e682dfd-14f1dd6c
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228619
Date: Sun, 17 Dec 2006 23:26:09 GMT
Call-ID: 000ab8f5-aadf000e-1e6d0e24-68267cac@5.5.5.226
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[23] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKed1bc5cf6b
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228623
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600061ecd741c-050a08c9
Call-ID: f26a6300-5851d207-3fd2-2d050505@5.5.5.45
Date: Sun, 17 Dec 2006 23:26:07 GMT
CSeq: 102 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0

```

### 6.3 Call Forward Busy

Title: Call Forward Busy

Description:

(F ---> H,  
G ---> H --CFB--> L)

Line 3033100 on phone F is used to call line 3034030 on Phone H and establish a connection (making 3034030 "busy").

Phone G calls line 3034030 on H while CCM has line 3034030 on H configured to forward to L when one call is already active on that line (i.e. busy trigger = 1).

Notice the "Diversion:" header in the INVITE to L. It uses "user-busy" to indicate Call Forward Busy.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = F, Line = 3033100, IP = 5.5.5.226, Model = SIP 7960

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3033100 calls 3034030

3034030 answers

3034030 and 3033100 are connected (3034030 is now "busy")

3034010 calls 3034030

3034030 never gets ringing for this call (CCM forwards due to busy)

3034040 rings

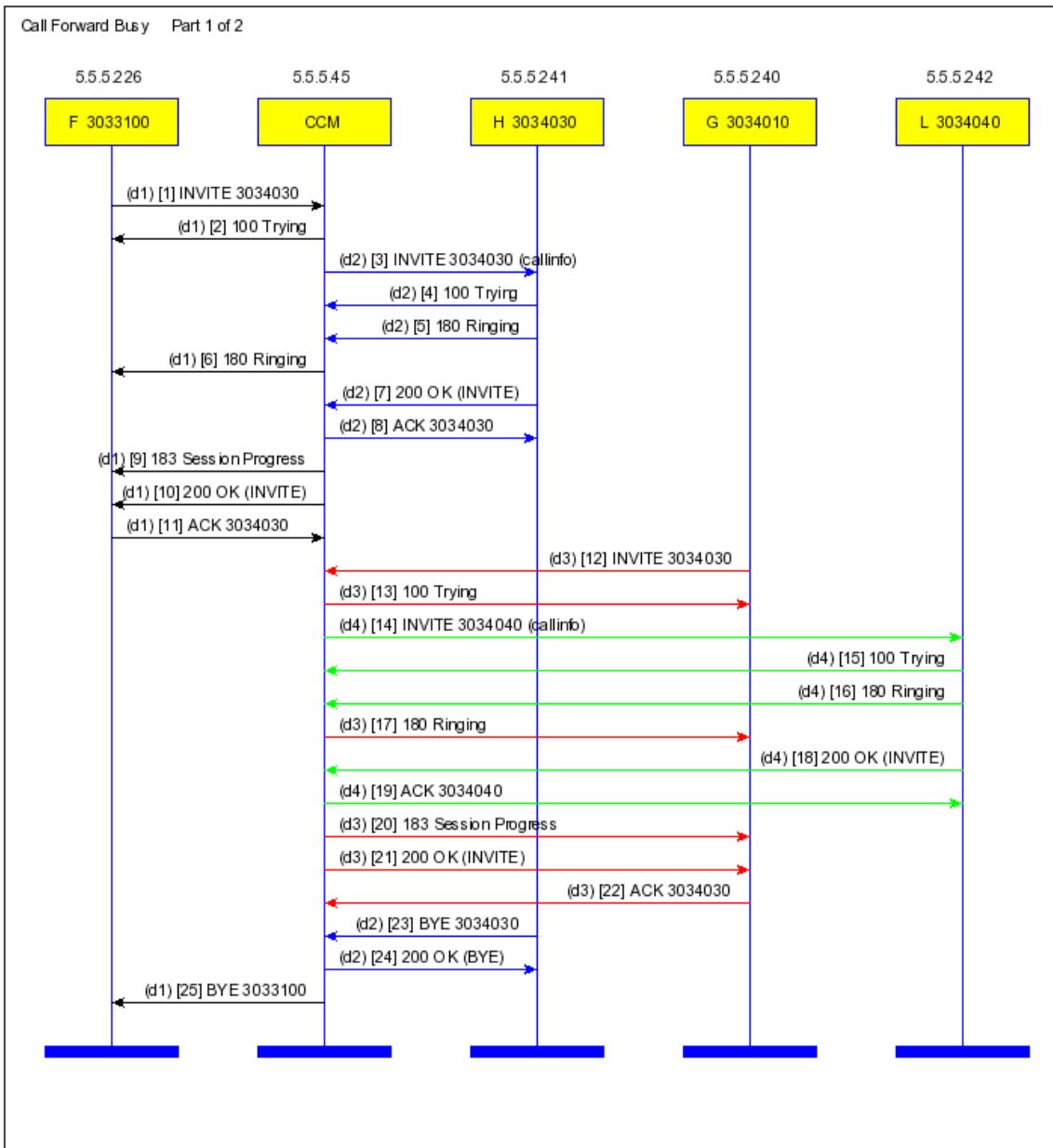
3034040 answers

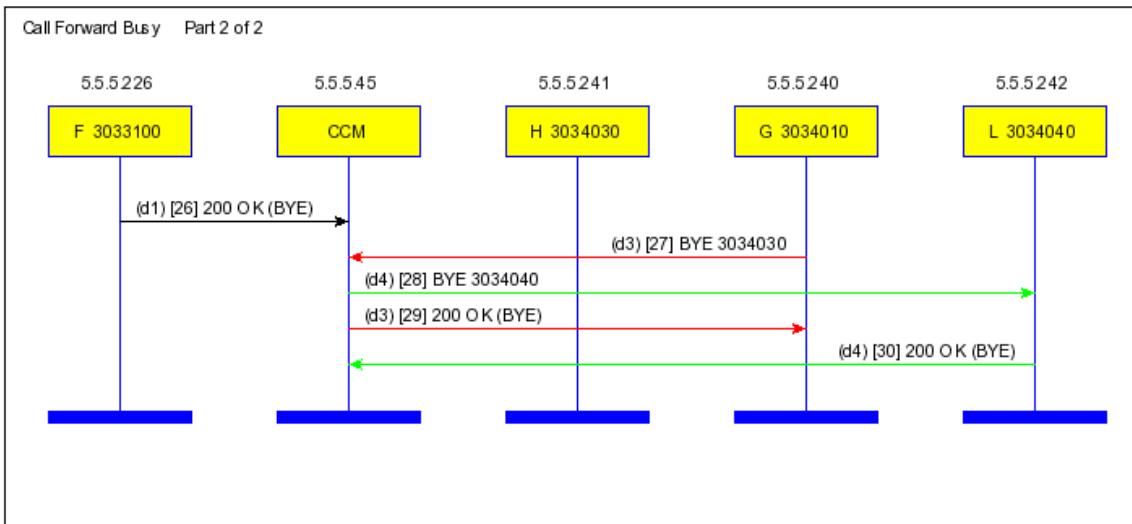
3034010 and 3034040 are connected

3034030 goes onhook to drop 3033100

3034010 goes onhook to drop 3034040







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

[1] **INVITE sip:3034030@titan-pub SIP/2.0**

Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK4abf5f60  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf00290c000753-13c23f46  
 To: <sip:3034030@titan-pub>  
 Call-ID: 000ab8f5-aadf0010-174e9b2a-785e3113@5.5.226  
 Max-Forwards: 70  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/8.0  
 Contact: <sip:3033100@5.5.226:5060;transport=udp>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 270  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 19787 0 IN IP4 5.5.5.226  
 s=SIP Call  
 t=0 0  
 m=audio 18434 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.226  
 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 5.5.226:5060;branch=z9hG4bK4abf5f60  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf00290c000753-13c23f46  
 To: <sip:3034030@titan-pub>  
 Date: Sun, 17 Dec 2006 23:49:24 GMT  
 Call-ID: 000ab8f5-aadf0010-174e9b2a-785e3113@5.5.226  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[3] **INVITE sip:3034030@5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK10164a96e4a  
 Remote-Party-ID: "Tripti" <sip:3033100@5.5.45>;party=calling;screen=yes;privacy=off  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228627  
 To: <sip:3034030@5.5.241>  
 Date: Sun, 17 Dec 2006 23:49:24 GMT  
 Call-ID: 37dc5f80-5851d784-400d-2d050505@5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034030@5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

[4] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK10164a96e4a  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228627  
 To: <sip:3034030@5.5.241>  
 Call-ID: 37dc5f80-5851d784-400d-2d050505@5.5.45  
 Date: Sun, 17 Dec 2006 23:49:23 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

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

[5] **SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK10164a96e4a  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228627  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600074eb51a64-56fdcff1  
 Call-ID: 37dc5f80-5851d784-400d-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 23:49:23 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[6] SIP/2.0 180 Ringing**

Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK4abf5f60  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf00290c000753-13c23f46  
 To: <sip:3034030@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228626  
 Date: Sun, 17 Dec 2006 23:49:24 GMT  
 Call-ID: 000ab8f5-aadf0010-174e9b2a-785e3113@5.5.5.226  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;  
 call-instance= 1  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[7] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK10164a96e4a  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228627  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600074eb51a64-56fdcff1  
 Call-ID: 37dc5f80-5851d784-400d-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 23:49:27 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 18157 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 32518 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

**[diagram] Call-ID:[prev][next]**  
**[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1021fe17683  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228627  
 To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600074eb51a64-56fdcff1  
 Date: Sun, 17 Dec 2006 23:49:24 GMT  
 Call-ID: 37dc5f80-5851d784-400d-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.226
t=0 0
m=audio 18434 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] SIP/2.0 183 Session Progress
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK4abf5f60
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf00290c000753-13c23f46
To: <sip:3034030@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228626
Date: Sun, 17 Dec 2006 23:49:24 GMT
Call-ID: 000ab8f5-aadf0010-174e9b2a-785e3113@5.5.5.226
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;
call-instance= 1
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 32518 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 5.5.5.226:5060;branch=z9hG4bK4abf5f60
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf00290c000753-13c23f46
To: <sip:3034030@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228626
Date: Sun, 17 Dec 2006 23:49:24 GMT
Call-ID: 000ab8f5-aadf0010-174e9b2a-785e3113@5.5.5.226
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Supported: replaces
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; call-instance= 1
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 32518 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:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK2f09cba7
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf00290c000753-13c23f46
To: <sip:3034030@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228626
Call-ID: 000ab8f5-aadf0010-174e9b2a-785e3113@5.5.5.226
Max-Forwards: 70
CSeq: 101 ACK
User-Agent: Cisco-CP7960G/8.0
Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[12] INVITE sip:3034030@5.5.5.45 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK29bf31bb
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000a7a674629-0b1dbf80
To: <sip:3034030@5.5.5.45>
Call-ID: 001a2f8d-f17f0004-3e02fa1e-4adace2a@5.5.5.240
Max-Forwards: 70
Date: Sun, 17 Dec 2006 23:49:42 GMT
CSeq: 101 INVITE
User-Agent: Cisco-CP7960G/7.5

```

Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 20143 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 28572 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15  
a=sendrecv

**[diagram] Call-ID:[prev][next]**  
**[13] SIP/2.0 100 Trying**  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK29bf31bb  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000a7a674629-0b1dbf80  
To: <sip:3034030@5.5.5.45>  
Date: Sun, 17 Dec 2006 23:49:41 GMT  
Call-ID: 001a2f8d-f17f0004-3e02fale-4adace2a@5.5.5.240  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[14] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1037936ed58  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228633  
To: <sip:3034040@5.5.5.242>  
Date: Sun, 17 Dec 2006 23:49:41 GMT  
Call-ID: 41fe5e00-5851d795-400f-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-dr1/>  
Contact: <sip:3034040@5.5.5.45:5060>  
Diversion: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;reason=user-busy;privacy=off;screen=yes  
Max-Forwards: 69  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[15] SIP/2.0 100 Trying**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1037936ed58  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228633  
To: <sip:3034040@5.5.5.242>  
Call-ID: 41fe5e00-5851d795-400f-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:49:42 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[16] SIP/2.0 180 Ringing**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1037936ed58  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228633  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000d7e6fa7e8-7be8ea74  
Call-ID: 41fe5e00-5851d795-400f-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:49:42 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>

```

Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[17] SIP/2.0 180 Ringing
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK29bf31bb
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000a7a674629-0b1dbf80
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228629
Date: Sun, 17 Dec 2006 23:49:41 GMT
Call-ID: 001a2f8d-f17f0004-3e02fale-4adace2a@5.5.5.240
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034030@5.5.5.45:5060>
Content-Length: 0

[diagram] Call-ID:[prev][next]
[18] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1037936ed58
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228633
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000d7e6fa7e8-7be8ea74
Call-ID: 41fe5e00-5851d795-400f-2d050505@5.5.5.45
Date: Sun, 17 Dec 2006 23:49:47 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034040@5.5.5.242:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes
Supported: replaces
Content-Length: 249
Content-Type: application/sdp
Content-Disposition: session;handling=optional

v=0
o=Cisco-SIPUA 16242 0 IN IP4 5.5.5.242
s=SIP Call
t=0 0
m=audio 31828 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.242
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv

[diagram] Call-ID:[prev][next]
[19] ACK sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1047564ccc6
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228633
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000d7e6fa7e8-7be8ea74
Date: Sun, 17 Dec 2006 23:49:41 GMT
Call-ID: 41fe5e00-5851d795-400f-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 28572 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15

[diagram] Call-ID:[prev][next]
[20] SIP/2.0 183 Session Progress
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK29bf31bb
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000a7a674629-0b1dbf80
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228629
Date: Sun, 17 Dec 2006 23:49:41 GMT
Call-ID: 001a2f8d-f17f0004-3e02fale-4adace2a@5.5.5.240
CSeq: 101 INVITE

```

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 31828 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]

**[21] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK29bf31bb  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000a7a674629-0b1dbf80  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228629  
 Date: Sun, 17 Dec 2006 23:49:41 GMT  
 Call-ID: 001a2f8d-f17f0004-3e02fale-4adace2a@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 31828 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:3034030@5.5.5.45:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK4b6fc05b  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f000a7a674629-0b1dbf80  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228629  
 Call-ID: 001a2f8d-f17f0004-3e02fale-4adace2a@5.5.5.240  
 Max-Forwards: 70  
 Date: Sun, 17 Dec 2006 23:49:48 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

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

**[23] BYE sip:3034030@5.5.5.45:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK788d2dc9  
 From: <sip:3034030@5.5.5.241>;tag=001a2fc77d600074eb51a64-56fdcff1  
 To: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228627  
 Call-ID: 37dc5f80-5851d784-400d-2d050505@5.5.5.45  
 Max-Forwards: 70  
 Date: Sun, 17 Dec 2006 23:49:53 GMT  
 CSeq: 101 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

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

**[24] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK788d2dc9  
 From: <sip:3034030@5.5.5.241>;tag=001a2fc77d600074eb51a64-56fdcff1  
 To: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228627  
 Date: Sun, 17 Dec 2006 23:49:54 GMT  
 Call-ID: 37dc5f80-5851d784-400d-2d050505@5.5.5.45  
 CSeq: 101 BYE  
 Content-Length: 0

```
[diagram] Call-ID:[prev][next]
[25] BYE sip:3033100@5.5.5.226:5060;transport=udp SIP/2.0
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK10564c03033
From: <sip:3034030@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228626
To: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf00290c000753-13c23f46
Date: Sun, 17 Dec 2006 23:49:29 GMT
Call-ID: 000ab8f5-aadf0010-174e9b2a-785e3113@5.5.5.226
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 101 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[26] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK10564c03033
From: <sip:3034030@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228626
To: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf00290c000753-13c23f46
Call-ID: 000ab8f5-aadf0010-174e9b2a-785e3113@5.5.5.226
CSeq: 101 BYE
Server: Cisco-CP7960G/8.0
Content-Length: 0

[diagram] Call-ID:[prev][next]
[27] BYE sip:3034030@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.240:5060;branch=z9hG4bK096a05ed
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f000a7a674629-0b1dbf80
To: <sip:3034030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228629
Call-ID: 001a2f8d-f17f0004-3e02fale-4adace2a@5.5.5.240
Max-Forwards: 70
Date: Sun, 17 Dec 2006 23:49:59 GMT
CSeq: 102 BYE
User-Agent: Cisco-CP7960G/7.5
Content-Length: 0

[diagram] Call-ID:[prev][next]
[28] BYE sip:3034040@5.5.5.242:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK1063811b2
From: "SIP Basic 3034010" <sip:3034010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228633
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000d7e6fa7e8-7be8ea74
Date: Sun, 17 Dec 2006 23:49:41 GMT
Call-ID: 41fe5e00-5851d795-400f-2d050505@5.5.5.45
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[29] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK096a05ed
From: "3034010" <sip:3034010@5.5.45>;tag=001a2f8df17f000a7a674629-0b1dbf80
To: <sip:3034030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228629
Date: Sun, 17 Dec 2006 23:49:58 GMT
Call-ID: 001a2f8d-f17f0004-3e02fale-4adace2a@5.5.5.240
CSeq: 102 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[30] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK1063811b2
From: "SIP Basic 3034010" <sip:3034010@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228633
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e000d7e6fa7e8-7be8ea74
Call-ID: 41fe5e00-5851d795-400f-2d050505@5.5.5.45
Date: Sun, 17 Dec 2006 23:49:59 GMT
CSeq: 102 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0
```

## 6.4 Call Forward Two Hops

Title: Call Forward Two Hops

Description:

F ---> G ---CFA---> H ---CFNA---> L

To demonstrate multiple diversion headers, set up a call forwarding call with two intermediate phones.

1. F calls line 3034010 on G which CCM has configured for Call Forward All to 3034030 on phone H.
2. Line 3034030 on phone H will ring but has Call Forward No Answer configured to forward to line 3034040 on phone L after 5 seconds.
3. Phone H does not answer within 5 seconds and the call is forwarded to L.

Notice the "Diversion:" header in the INVITE to H. This should be identical to the Call Forward All scenario.

Notice the two "Diversion:" headers in the INVITE to L. The first indicates the "no-answer" forwarding from H and the second indicates the "unconditional" forwarding from G.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = F, Line = 3033100, IP = 5.5.5.226, Model = SIP 7960

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3033100 calls 3034010

3034010 does not ring for Call Forward All

3034030 rings for about 5 seconds but is not answered

3034040 rings

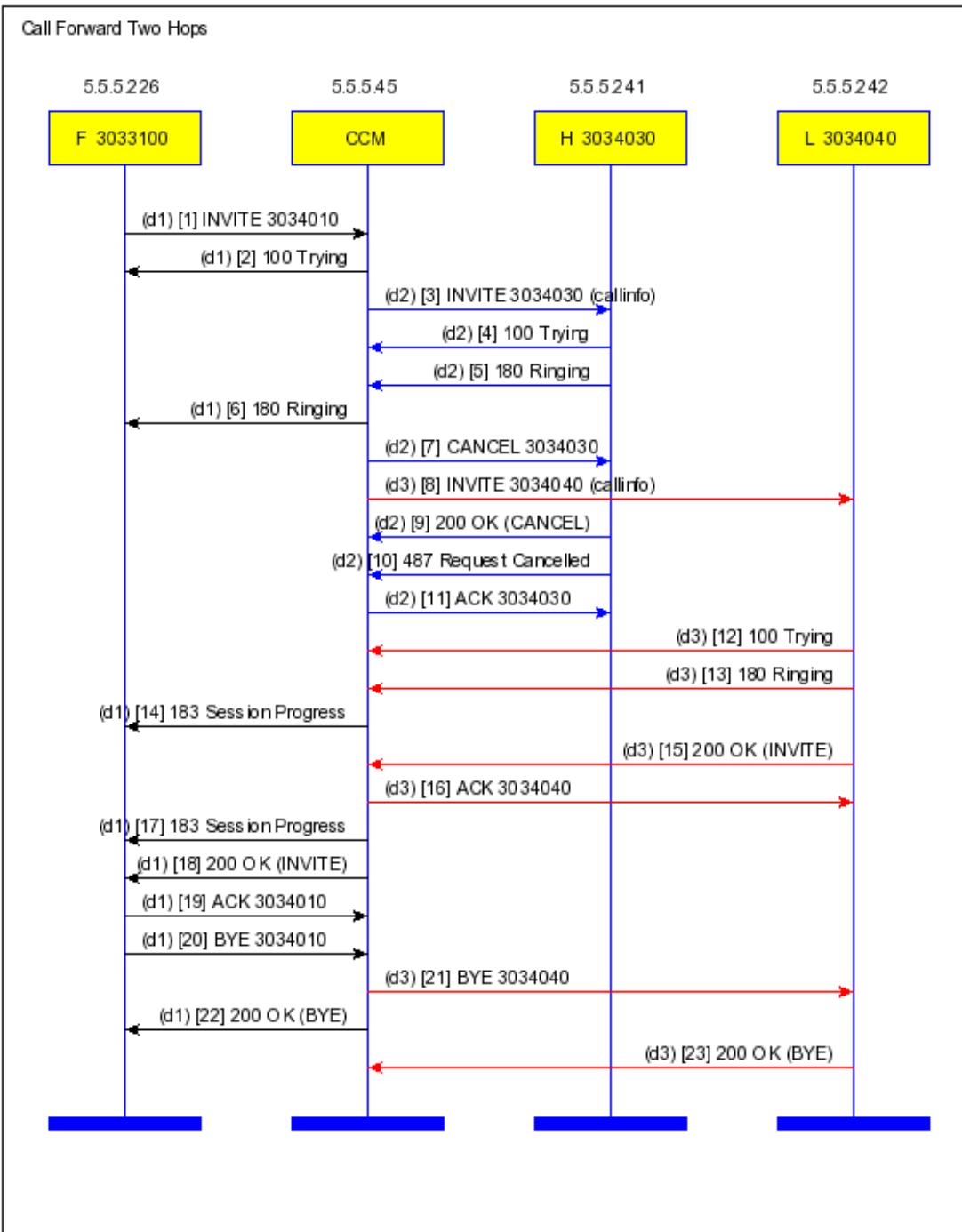
The call to 3034030 is cancelled

3034040 answers

3033100 and 3034040 are connected

3033100 goes onhook





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

[1] **INVITE sip:3034010@titan-pub SIP/2.0**

Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK35185087  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
 To: <sip:3034010@titan-pub>  
 Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.226  
 Max-Forwards: 70  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/8.0  
 Contact: <sip:3033100@5.5.226:5060;transport=udp>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 269  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 8668 0 IN IP4 5.5.5.226  
 s=SIP Call  
 t=0 0  
 m=audio 20956 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.226  
 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 5.5.226:5060;branch=z9hG4bK35185087  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
 To: <sip:3034010@titan-pub>  
 Date: Sun, 17 Dec 2006 23:58:44 GMT  
 Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.226  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

[3] **INVITE sip:3034030@5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK11167320187  
 Remote-Party-ID: "Tripti" <sip:3033100@5.5.45>;party=calling;screen=yes;privacy=off  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228637  
 To: <sip:3034030@5.5.241>  
 Date: Sun, 17 Dec 2006 23:58:44 GMT  
 Call-ID: 85a59780-5851d9b4-402a-2d050505@5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl1/>  
 Contact: <sip:3034030@5.5.45:5060>  
 Diversion: "SIP Basic 3034010" <sip:3034010@5.5.45>;reason=unconditional;privacy=off;screen=yes  
 Max-Forwards: 69  
 Content-Length: 0

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

[4] **SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK11167320187  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228637  
 To: <sip:3034030@5.5.241>  
 Call-ID: 85a59780-5851d9b4-402a-2d050505@5.5.45  
 Date: Sun, 17 Dec 2006 23:58:44 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034030@5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034030" <sip:3034030@5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK11167320187  
From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228637  
To: <sip:3034030@5.5.241>;tag=001a2fc77d600061ecb6b64-6093f782  
Call-ID: 85a59780-5851d9b4-402a-2d050505@5.5.45  
Date: Sun, 17 Dec 2006 23:58:44 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK35185087  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228634  
Date: Sun, 17 Dec 2006 23:58:44 GMT  
Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.5.226  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034010@5.5.5.45:5060>  
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout; call-instance= 1  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] CANCEL sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK11167320187  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228637  
To: <sip:3034030@5.5.5.241>  
Date: Sun, 17 Dec 2006 23:58:44 GMT  
Call-ID: 85a59780-5851d9b4-402a-2d050505@5.5.5.45  
CSeq: 101 CANCEL  
Max-Forwards: 70  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[8] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK11234a836d4  
Remote-Party-ID: "Tripti" <sip:3033100@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228640  
To: <sip:3034040@5.5.5.242>  
Date: Sun, 17 Dec 2006 23:58:57 GMT  
Call-ID: 8d653c00-5851d9c1-402b-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034040@5.5.5.45:5060>  
Diversion: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;reason=no-answer;privacy=off;screen=yes  
Diversion: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;reason=unconditional;privacy=off;screen=yes  
Max-Forwards: 69  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[9] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK11167320187  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228637  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600061ecb6b64-6093f782  
Call-ID: 85a59780-5851d9b4-402a-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:58:56 GMT  
CSeq: 101 CANCEL  
Server: Cisco-CP7960G/7.5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[10] SIP/2.0 487 Request Cancelled  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK11167320187  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228637  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d600061ecb6b64-6093f782

Call-ID: 85a59780-5851d9b4-402a-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:58:56 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[11] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK11167320187  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228637  
To: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d600061ecb6b64-6093f782  
Date: Sun, 17 Dec 2006 23:58:44 GMT  
Call-ID: 85a59780-5851d9b4-402a-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[12] SIP/2.0 100 Trying  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK11234a836d4  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228640  
To: <sip:3034040@5.5.5.242>  
Call-ID: 8d653c00-5851d9c1-402b-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:58:57 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[13] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK11234a836d4  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228640  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e00125ba5981b-1ce855e9  
Call-ID: 8d653c00-5851d9c1-402b-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:58:57 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[14] SIP/2.0 183 Session Progress  
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK35185087  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228634  
Date: Sun, 17 Dec 2006 23:58:44 GMT  
Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.5.226  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034010@5.5.5.45:5060>  
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;  
call-instance= 1  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[15] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK11234a836d4  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228640  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e00125ba5981b-1ce855e9  
Call-ID: 8d653c00-5851d9c1-402b-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:59:01 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp

Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 23200 0 IN IP4 5.5.5.242  
s=SIP Call  
t=0 0  
m=audio 31832 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.242  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtp:101 0-15  
a=sendrecv

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

[16] ACK sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK113794c7c4b  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228640  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e00125ba5981b-1ce855e9  
Date: Sun, 17 Dec 2006 23:58:57 GMT  
Call-ID: 8d653c00-5851d9c1-402b-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.226  
t=0 0  
m=audio 20956 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]

[17] SIP/2.0 183 Session Progress  
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK35185087  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228634  
Date: Sun, 17 Dec 2006 23:58:44 GMT  
Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.5.226  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034010@5.5.5.45:5060>  
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; ui-state= ringout;  
call-instance= 1  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.242  
t=0 0  
m=audio 31832 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]

[18] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK35185087  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228634  
Date: Sun, 17 Dec 2006 23:58:44 GMT  
Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.5.226  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034010@5.5.5.45:5060>  
Supported: replaces

Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; call-instance= 1  
Content-Type: application/sdp  
Content-Length: 205

v=0  
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
s=SIP Call  
c=IN IP4 5.5.5.242  
t=0 0  
m=audio 31832 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]**  
**[19] ACK sip:3034010@5.5.45:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK0f173bbc  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228634  
Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.5.226  
Max-Forwards: 70  
CSeq: 101 ACK  
User-Agent: Cisco-CP7960G/8.0  
Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[20] BYE sip:3034010@5.5.45:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK02e7a678  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228634  
Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.5.226  
Max-Forwards: 70  
CSeq: 102 BYE  
User-Agent: Cisco-CP7960G/8.0  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[21] BYE sip:3034040@5.5.242:5060 SIP/2.0**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1142e348c13  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228640  
To: <sip:3034040@5.5.242>;tag=0018b93bb53e00125ba5981b-1ce855e9  
Date: Sun, 17 Dec 2006 23:58:57 GMT  
Call-ID: 8d653c00-5851d9c1-402b-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 102 BYE  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[22] SIP/2.0 200 OK**  
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK02e7a678  
From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf002d6be702f3-06120468  
To: <sip:3034010@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228634  
Date: Sun, 17 Dec 2006 23:59:07 GMT  
Call-ID: 000ab8f5-aadf0011-6d83151f-14298448@5.5.5.226  
CSeq: 102 BYE  
Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[23] SIP/2.0 200 OK**  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1142e348c13  
From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228640  
To: <sip:3034040@5.5.242>;tag=0018b93bb53e00125ba5981b-1ce855e9  
Call-ID: 8d653c00-5851d9c1-402b-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 23:59:07 GMT  
CSeq: 102 BYE  
Server: Cisco-CP7960G/7.5  
Content-Length: 0

## 6.5 302 Redirect

Title: 302 Redirect

Description:

If a SIP 7940/7960 (non-TNP) phone is configured for call forward all via the phone softkeys, there is no synchronization with the CCM.

The phone handles the forwarding locally using a 302 redirect.

For this example, assume that line 3034030 on phone H has call forward all configured such that a 302 redirect to 3034040 will be sent when it receives an INVITE.

Line 3034010 on phone A calls line 3034030 on B. The call will be forwarded, via 302, to 3034040 on C.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034040, IP = 5.5.5.242, Model = SIP Basic

Scenario:

3034010 calls 3034030

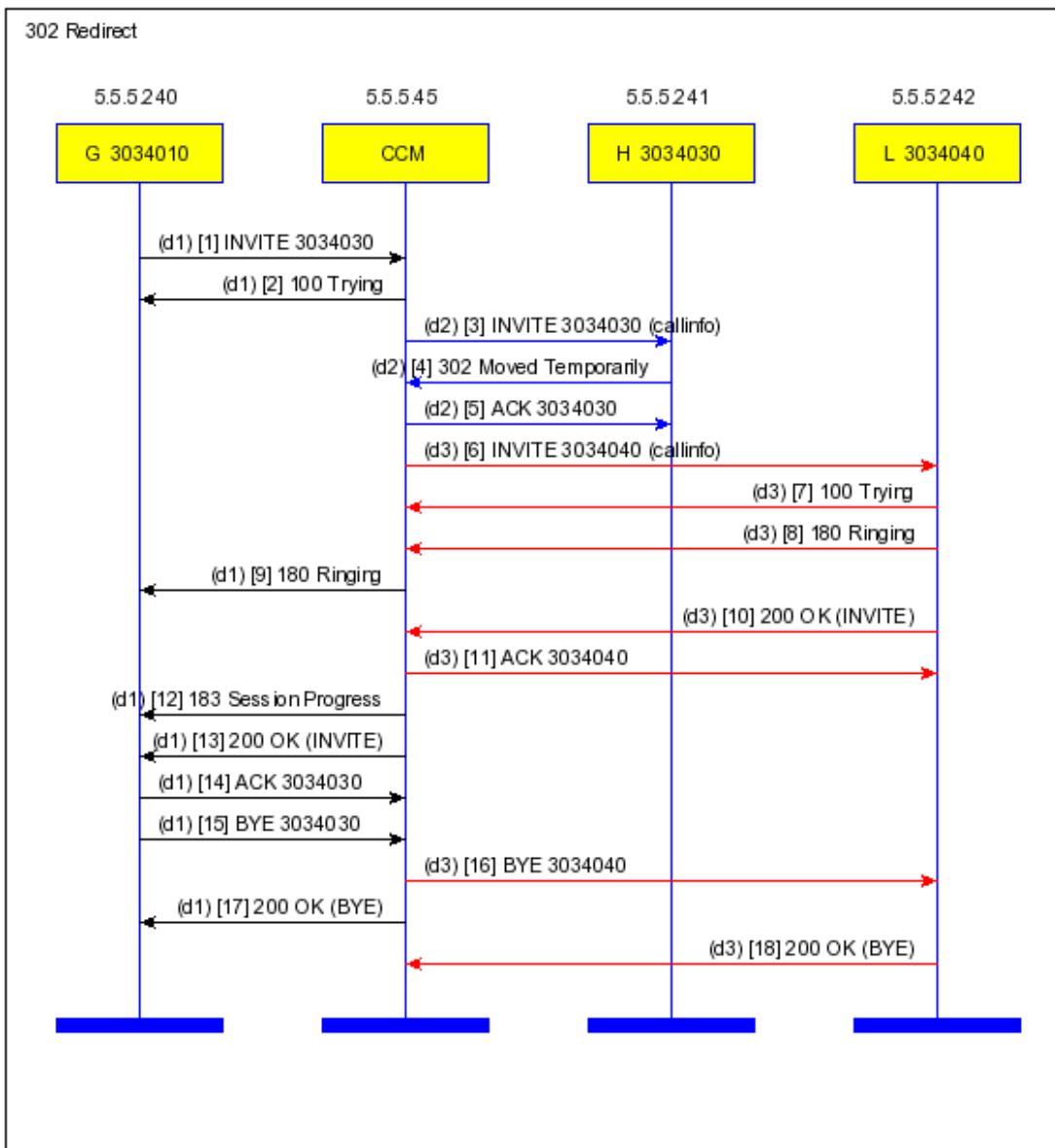
3034030 responds with "302 Moved Temporarily"

3034040 rings

3034040 answers

3034010 and 3034040 are connected

3034010 goes onhook





[diagram] Call-ID:[prev][next]  
[5] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKc160b57d29  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228595  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d61944745e7d26-5d600f69  
Date: Sun, 17 Dec 2006 22:52:56 GMT  
Call-ID: 54749980-5851ca48-3f6c-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] INVITE sip:3034040@5.5.5.242:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKc21804780b  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228597  
To: <sip:3034040@5.5.5.242>  
Date: Sun, 17 Dec 2006 22:52:56 GMT  
Call-ID: 54749980-5851ca48-3f6d-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034040@5.5.5.45:5060>  
Diversion: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;reason=unconditional;privacy=off;screen=yes  
Diversion: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;reason=unconditional;privacy=off;screen=yes  
Max-Forwards: 69  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 100 Trying  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKc21804780b  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228597  
To: <sip:3034040@5.5.5.242>  
Call-ID: 54749980-5851ca48-3f6d-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 22:52:57 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[8] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKc21804780b  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228597  
To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e1302455e7df1-4a78d34b  
Call-ID: 54749980-5851ca48-3f6d-2d050505@5.5.5.45  
Date: Sun, 17 Dec 2006 22:52:57 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034040@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034040" <sip:3034040@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[9] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7f9428d6  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df1f13161a9245f9-341e3ac3  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228594  
Date: Sun, 17 Dec 2006 22:52:56 GMT  
Call-ID: 001a2f8d-f17f0026-41ad7ale-756367d5@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[10] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKc21804780b



From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f13161a9245f9-341e3ac3  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228594  
 Date: Sun, 17 Dec 2006 22:52:56 GMT  
 Call-ID: 001a2f8d-f17f0026-41ad7ale-756367d5@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034040" <sip:3034040@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.242  
 t=0 0  
 m=audio 28546 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]**  
**[14] ACK sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK090784f5  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f13161a9245f9-341e3ac3  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228594  
 Call-ID: 001a2f8d-f17f0026-41ad7ale-756367d5@5.5.5.240  
 Max-Forwards: 70  
 Date: Sun, 17 Dec 2006 22:53:01 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[15] BYE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK76e66202  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f13161a9245f9-341e3ac3  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228594  
 Call-ID: 001a2f8d-f17f0026-41ad7ale-756367d5@5.5.5.240  
 Max-Forwards: 70  
 Date: Sun, 17 Dec 2006 22:53:03 GMT  
 CSeq: 102 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[16] BYE sip:3034040@5.5.5.242:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKc43ae0a6d1  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228597  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e1302455e7df1-4a78d34b  
 Date: Sun, 17 Dec 2006 22:52:56 GMT  
 Call-ID: 54749980-5851ca48-3f6d-2d050505@5.5.5.45  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 102 BYE  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[17] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK76e66202  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f13161a9245f9-341e3ac3  
 To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228594  
 Date: Sun, 17 Dec 2006 22:53:03 GMT  
 Call-ID: 001a2f8d-f17f0026-41ad7ale-756367d5@5.5.5.240  
 CSeq: 102 BYE  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[18] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKc43ae0a6d1  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228597  
 To: <sip:3034040@5.5.5.242>;tag=0018b93bb53e1302455e7df1-4a78d34b  
 Call-ID: 54749980-5851ca48-3f6d-2d050505@5.5.5.45  
 Date: Sun, 17 Dec 2006 22:53:04 GMT  
 CSeq: 102 BYE  
 Server: Cisco-CP7960G/7.5



## 7. Call Forking

### 7.1 Call Forking

Title: Call Forking

Description:

A SIP Basic phone make a call to a DN which exists on two other SIP Basic phones.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP Basic

Phone = H, Line = 3034050, IP = 5.5.5.241, Model = SIP Basic

Phone = L, Line = 3034050, IP = 5.5.5.242, Model = SIP Basic

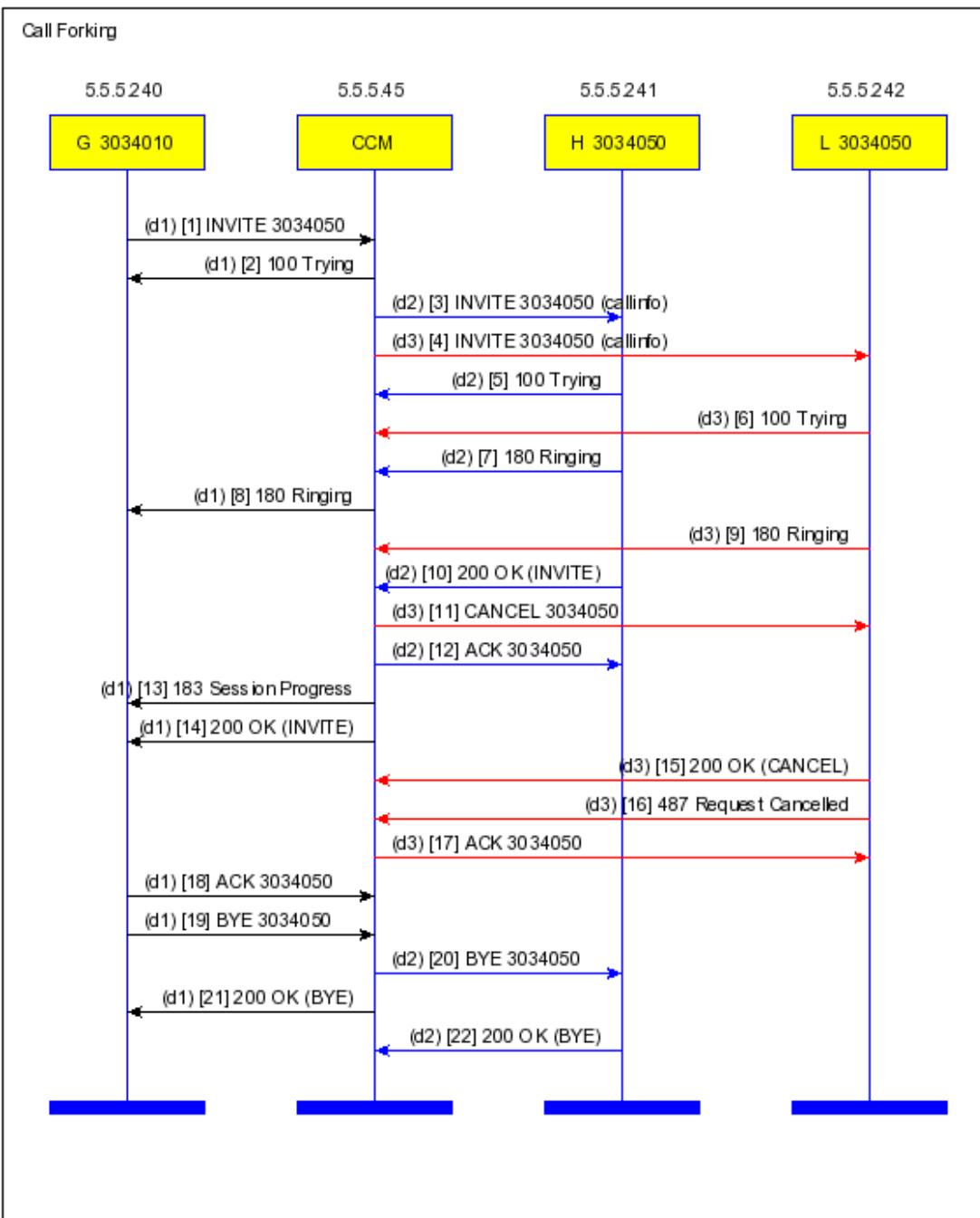
Scenario:

3034010 dials 3034050

H.3034050 and L.3034050 rings

H.3034050 answers

3034010 goes onhook



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

**[1] INVITE sip:3034050@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7b0c479a  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002f40bebb33-5d17d220  
 To: <sip:3034050@5.5.5.45>  
 Call-ID: 001a2f8d-f17f0021-42f9a95a-48cbe55f@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/7.5  
 Contact: <sip:3034010@5.5.5.240:5060>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 248  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 7384 0 IN IP4 5.5.5.240  
 s=SIP Call  
 t=0 0  
 m=audio 26744 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.240  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtpt:101 0-15  
 a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7b0c479a  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002f40bebb33-5d17d220  
 To: <sip:3034050@5.5.5.45>  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 Call-ID: 001a2f8d-f17f0021-42f9a95a-48cbe55f@5.5.5.240  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:3034050@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa5141a827a  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228582  
 To: <sip:3034050@5.5.5.241>  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 Call-ID: a9743800-57alfa99-87-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-drl/>  
 Contact: <sip:3034050@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] INVITE sip:3034050@5.5.5.242:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa67ceb0b14  
 Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228582  
 To: <sip:3034050@5.5.5.242>  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 Call-ID: a9743800-57alfa99-88-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 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; call-instance= 1  
 Alert-Info: <file://Bellcore-dr1/>  
 Contact: <sip:3034050@5.5.5.45:5060>  
 Max-Forwards: 69  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[5] SIP/2.0 100 Trying**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa5141a827a  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
 To: <sip:3034050@5.5.5.241>  
 Call-ID: a9743800-57a1fa99-87-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:04:08 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034050@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034050" <sip:3034050@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[6] SIP/2.0 100 Trying**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa67ceb0b14  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
 To: <sip:3034050@5.5.5.242>  
 Call-ID: a9743800-57a1fa99-88-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034050@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034050" <sip:3034050@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[7] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa5141a827a  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
 To: <sip:3034050@5.5.5.241>;tag=001a2fcbb7d6003108f9f5bd-07bbf584  
 Call-ID: a9743800-57a1fa99-87-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:04:08 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034050@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034050" <sip:3034050@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[8] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7b0c479a  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002f40bebb33-5d17d220  
 To: <sip:3034050@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228581  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 Call-ID: 001a2f8d-f17f0021-42f9a95a-48cbe55f@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034050" <sip:3034050@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034050@5.5.5.45:5060>  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[9] SIP/2.0 180 Ringing**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa67ceb0b14  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
 To: <sip:3034050@5.5.5.242>;tag=001b93bb53e00203cf30da-538bcd18  
 Call-ID: a9743800-57a1fa99-88-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034050@5.5.5.242:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034050" <sip:3034050@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
**[10] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa5141a827a  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582

To: <sip:3034050@5.5.5.241>;tag=001a2fc77d6003108f9f5bd-07bbf584  
 Call-ID: a9743800-57a1fa99-87-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:04:11 GMT  
 CSeq: 101 INVITE  
 Server: Cisco-CP7960G/7.5  
 Contact: <sip:3034050@5.5.5.241:5060>  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "3034050" <sip:3034050@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
 Supported: replaces  
 Content-Length: 249  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 25615 0 IN IP4 5.5.5.241  
 s=SIP Call  
 t=0 0  
 m=audio 17468 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.241  
 a=rtpmap:0 PCMU/8000  
 a=rtpmap:8 PCMA/8000  
 a=rtpmap:18 G729/8000  
 a=rtpmap:101 telephone-event/8000  
 a=fmtp:101 0-15  
 a=sendrecv

**[diagram]** Call-ID: [prev][next]  
**[11]** CANCEL sip:3034050@5.5.5.242:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa67ceb0b14  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
 To: <sip:3034050@5.5.242>  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 Call-ID: a9743800-57a1fa99-88-2d050505@5.5.5.45  
 CSeq: 101 CANCEL  
 Max-Forwards: 70  
 Reason: Q.850;cause=31  
 Content-Length: 0

**[diagram]** Call-ID: [prev][next]  
**[12]** ACK sip:3034050@5.5.5.241:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa754eab4c0  
 From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
 To: <sip:3034050@5.5.5.241>;tag=001a2fc77d6003108f9f5bd-07bbf584  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 Call-ID: a9743800-57a1fa99-87-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.240  
 t=0 0  
 m=audio 26744 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]  
**[13]** SIP/2.0 183 Session Progress  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7b0c479a  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002f40bebb33-5d17d220  
 To: <sip:3034050@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228581  
 Date: Sat, 09 Dec 2006 18:04:09 GMT  
 Call-ID: 001a2f8d-f17f0021-42f9a95a-48cbe55f@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034050" <sip:3034050@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034050@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call

```
c=IN IP4 5.5.5.241
t=0 0
m=audio 17468 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=rtpmap:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

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

**[14] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK7b0c479a  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002f40bebb33-5d17d220  
To: <sip:3034050@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228581  
Date: Sat, 09 Dec 2006 18:04:09 GMT  
Call-ID: 001a2f8d-f17f0021-42f9a95a-48cbe55f@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034050" <sip:3034050@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034050@5.5.5.45:5060>  
Supported: replaces  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.241
t=0 0
m=audio 17468 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=rtpmap:20
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

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

**[15] SIP/2.0 200 OK**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa67ceb0b14  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
To: <sip:3034050@5.5.5.242>;tag=0018b93bb53e00203cf30da-538bcd18  
Call-ID: a9743800-57a1fa99-88-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:04:12 GMT  
CSeq: 101 CANCEL  
Server: Cisco-CP7960G/7.5  
Content-Length: 0

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

**[16] SIP/2.0 487 Request Cancelled**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa67ceb0b14  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
To: <sip:3034050@5.5.5.242>;tag=0018b93bb53e00203cf30da-538bcd18  
Call-ID: a9743800-57a1fa99-88-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:04:12 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034050@5.5.5.242:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034050" <sip:3034050@5.5.5.242>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

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

**[17] ACK sip:3034050@5.5.5.242:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa67ceb0b14  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228582  
To: <sip:3034050@5.5.5.242>;tag=0018b93bb53e00203cf30da-538bcd18  
Date: Sat, 09 Dec 2006 18:04:09 GMT  
Call-ID: a9743800-57a1fa99-88-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Length: 0

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

**[18] ACK sip:3034050@5.5.5.45:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK604ef1d8  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002f40bebb33-5d17d220  
To: <sip:3034050@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228581  
Call-ID: 001a2f8d-f17f0021-42f9a95a-48cbe55f@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 18:04:13 GMT

CSeq: 101 ACK  
User-Agent: Cisco-CP7960G/7.5  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[19] BYE sip:3034050@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1194af2c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002f40bebb33-5d17d220  
To: <sip:3034050@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228581  
Call-ID: 001a2f8d-f17f0021-42f9a95a-48cbe55f@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 18:04:17 GMT  
CSeq: 102 BYE  
User-Agent: Cisco-CP7960G/7.5  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[20] BYE sip:3034050@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa8b775d4  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228582  
To: <sip:3034050@5.5.5.241>;tag=001a2fcbb77d6003108f9f5bd-07bbf584  
Date: Sat, 09 Dec 2006 18:04:09 GMT  
Call-ID: a9743800-57alfa99-87-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[21] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK1194af2c  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f002f40bebb33-5d17d220  
To: <sip:3034050@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228581  
Date: Sat, 09 Dec 2006 18:04:17 GMT  
Call-ID: 001a2f8d-f17f0021-42f9a95a-48cbe55f@5.5.5.240  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[22] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKa8b775d4  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228582  
To: <sip:3034050@5.5.5.241>;tag=001a2fcbb77d6003108f9f5bd-07bbf584  
Call-ID: a9743800-57alfa99-87-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:04:16 GMT  
CSeq: 102 BYE  
Server: Cisco-CP7960G/7.5  
Content-Length: 0

## 8. Distinctive Ringing

### 8.1 Alert Info - Internal

Title: Alert Info - Internal

Description:

SIP 7960 phone calls a SIP 7960 phone.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP 7960

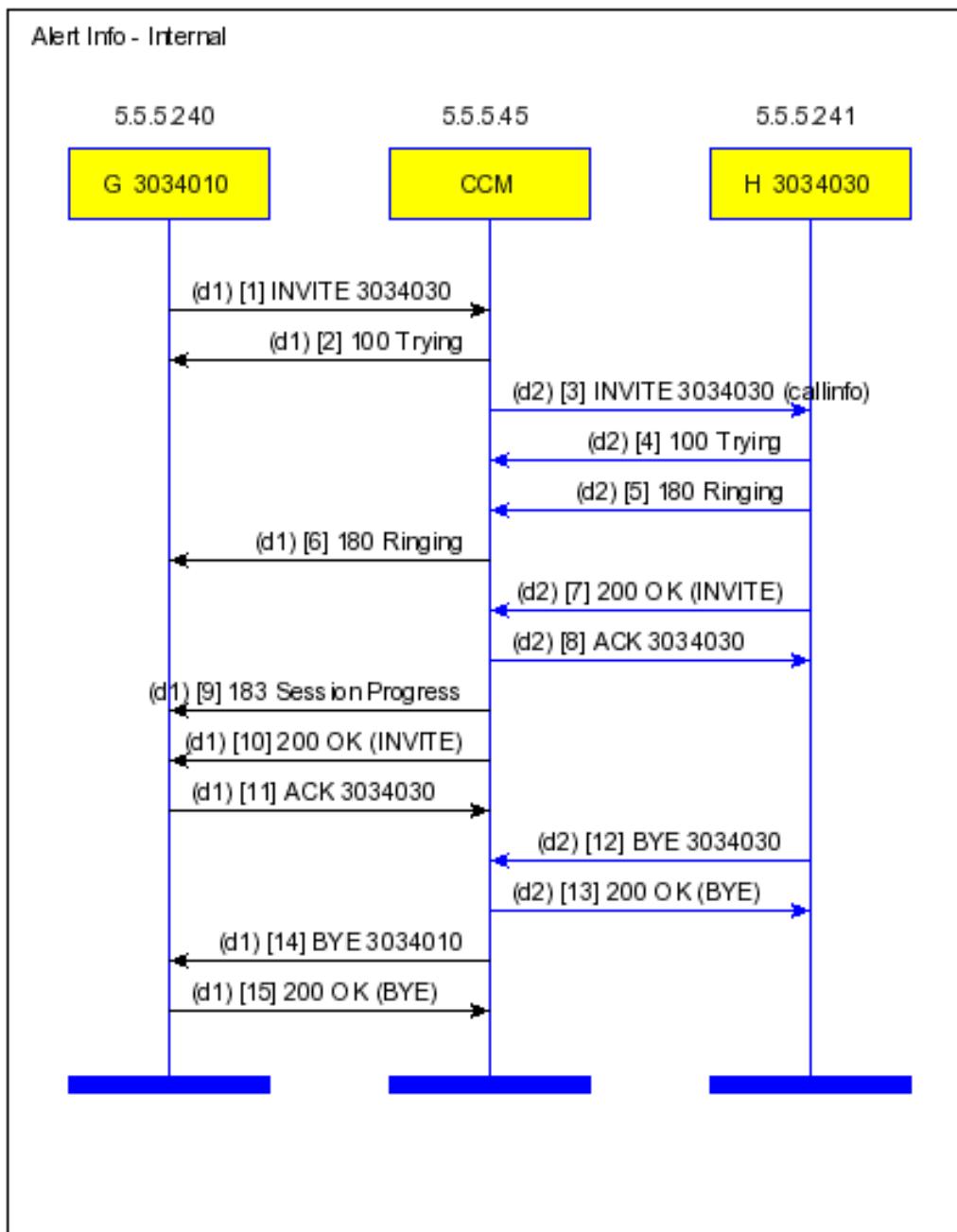
Phone = H, Line = 3034030, IP = 5.5.5.241, Model = SIP Basic

Scenario:

3034010 calls 3034030

3034030 answers the call

3034030 goes onhook



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

**[1] INVITE sip:3034030@5.5.5.45 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK620fb262  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00376f012db9-565fede5  
To: <sip:3034030@5.5.5.45>  
Call-ID: 001a2f8d-f17f0025-219388be-4a1169e6@5.5.5.240  
Max-Forwards: 70  
Date: Sat, 09 Dec 2006 18:12:53 GMT  
CSeq: 101 INVITE  
User-Agent: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Expires: 180  
Accept: application/sdp  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 248  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

v=0  
o=Cisco-SIPUA 5159 0 IN IP4 5.5.5.240  
s=SIP Call  
t=0 0  
m=audio 26760 RTP/AVP 0 8 18 101  
c=IN IP4 5.5.5.240  
a=rtpmap:0 PCMU/8000  
a=rtpmap:8 PCMA/8000  
a=rtpmap:18 G729/8000  
a=rtpmap:101 telephone-event/8000  
a=fmtpt:101 0-15  
a=sendrecv

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

**[2] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK620fb262  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00376f012db9-565fede5  
To: <sip:3034030@5.5.5.45>  
Date: Sat, 09 Dec 2006 18:12:53 GMT  
Call-ID: 001a2f8d-f17f0025-219388be-4a1169e6@5.5.5.240  
CSeq: 101 INVITE  
Allow-Events: presence  
Content-Length: 0

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

**[3] INVITE sip:3034030@5.5.5.241:5060 SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb865e50168  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=calling;screen=yes;privacy=off  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228591  
To: <sip:3034030@5.5.5.241>  
Date: Sat, 09 Dec 2006 18:12:53 GMT  
Call-ID: e1c84600-57a1fcfa5-9c-2d050505@5.5.5.45  
Supported: timer,replaces  
Min-SE: 1800  
User-Agent: Cisco-CCM5.1  
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; call-instance= 1  
Alert-Info: <file://Bellcore-drl/>  
Contact: <sip:3034030@5.5.5.45:5060>  
Max-Forwards: 69  
Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb865e50168  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228591  
To: <sip:3034030@5.5.5.241>  
Call-ID: e1c84600-57a1fcfa5-9c-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:12:52 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[5] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb865e50168  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228591  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6003937d081bb-2e36b08a  
Call-ID: e1c84600-57a1fcfa5-9c-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:12:53 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK620fb262  
From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00376f012db9-565fede5  
To: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228590  
Date: Sat, 09 Dec 2006 18:12:53 GMT  
Call-ID: 001a2f8d-f17f0025-219388be-4a1169e6@5.5.5.240  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034030@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb865e50168  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228591  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6003937d081bb-2e36b08a  
Call-ID: e1c84600-57a1fcfa5-9c-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:12:54 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034030@5.5.5.241:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034030" <sip:3034030@5.5.5.241>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 10663 0 IN IP4 5.5.5.241
s=SIP Call
t=0 0
m=audio 17476 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.241
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] ACK sip:3034030@5.5.5.241:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKb92fe97bd  
From: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228591  
To: <sip:3034030@5.5.5.241>;tag=001a2fc77d6003937d081bb-2e36b08a  
Date: Sat, 09 Dec 2006 18:12:53 GMT  
Call-ID: e1c84600-57a1fcfa5-9c-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26760 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] SIP/2.0 183 Session Progress**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK620fb262  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00376f012db9-565fede5  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228590  
 Date: Sat, 09 Dec 2006 18:12:53 GMT  
 Call-ID: 001a2f8d-f17f0025-219388be-4a1169e6@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17476 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 5.5.5.240:5060;branch=z9hG4bK620fb262  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00376f012db9-565fede5  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228590  
 Date: Sat, 09 Dec 2006 18:12:53 GMT  
 Call-ID: 001a2f8d-f17f0025-219388be-4a1169e6@5.5.5.240  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: "SIP Basic 3034030" <sip:3034030@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:3034030@5.5.5.45:5060>  
 Supported: replaces  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.241  
 t=0 0  
 m=audio 17476 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:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.240:5060;branch=z9hG4bK3aa072d4  
 From: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00376f012db9-565fede5  
 To: <sip:3034030@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228590  
 Call-ID: 001a2f8d-f17f0025-219388be-4a1169e6@5.5.5.240  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:12:56 GMT  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/7.5  
 Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

**[diagram] Call-ID:[prev][next]**  
**[12] BYE sip:3034030@5.5.5.45:5060 SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK47e59c66  
 From: <sip:3034030@5.5.5.241>;tag=001a2fcbb77d6003937d081bb-2e36b08a  
 To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228591  
 Call-ID: e1c84600-57alfca5-9c-2d050505@5.5.5.45  
 Max-Forwards: 70  
 Date: Sat, 09 Dec 2006 18:12:59 GMT  
 CSeq: 101 BYE  
 User-Agent: Cisco-CP7960G/7.5  
 Content-Length: 0

```
[diagram] Call-ID:[prev][next]
[13] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.241:5060;branch=z9hG4bK47e59c66
From: <sip:3034030@5.5.5.241>;tag=001a2fcb77d6003937d081bb-2e36b08a
To: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228591
Date: Sat, 09 Dec 2006 18:13:00 GMT
Call-ID: e1c84600-57a1fc5-9c-2d050505@5.5.5.45
CSeq: 101 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[14] BYE sip:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKba259e3221
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228590
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00376f012db9-565fede5
Date: Sat, 09 Dec 2006 18:12:55 GMT
Call-ID: 001a2f8d-f17f0025-219388be-4a1169e6@5.5.5.240
User-Agent: Cisco-CCM5.1
Max-Forwards: 70
CSeq: 101 BYE
Content-Length: 0

[diagram] Call-ID:[prev][next]
[15] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKba259e3221
From: <sip:3034030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228590
To: "3034010" <sip:3034010@5.5.5.45>;tag=001a2f8df17f00376f012db9-565fede5
Call-ID: 001a2f8d-f17f0025-219388be-4a1169e6@5.5.5.240
Date: Sat, 09 Dec 2006 18:13:00 GMT
CSeq: 101 BYE
Server: Cisco-CP7960G/7.5
Content-Length: 0
```

## 8.2 Alert Info - External

Title: Alert Info - External

Description:

A phone from another cluster calls a SIP 7960 phone over a SIP-ICT trunk.

Configuration:

Node = CCM, IP = 5.5.5.45

Node = CCM2, IP = 5.5.5.48

Phone = G, Line = 3034010, IP = 5.5.5.240, Model = SIP 7960

Phone = X, Line = 4251030, IP = 5.5.5., Model = SCCP

SIP-ICT trunk configured

Scenario:

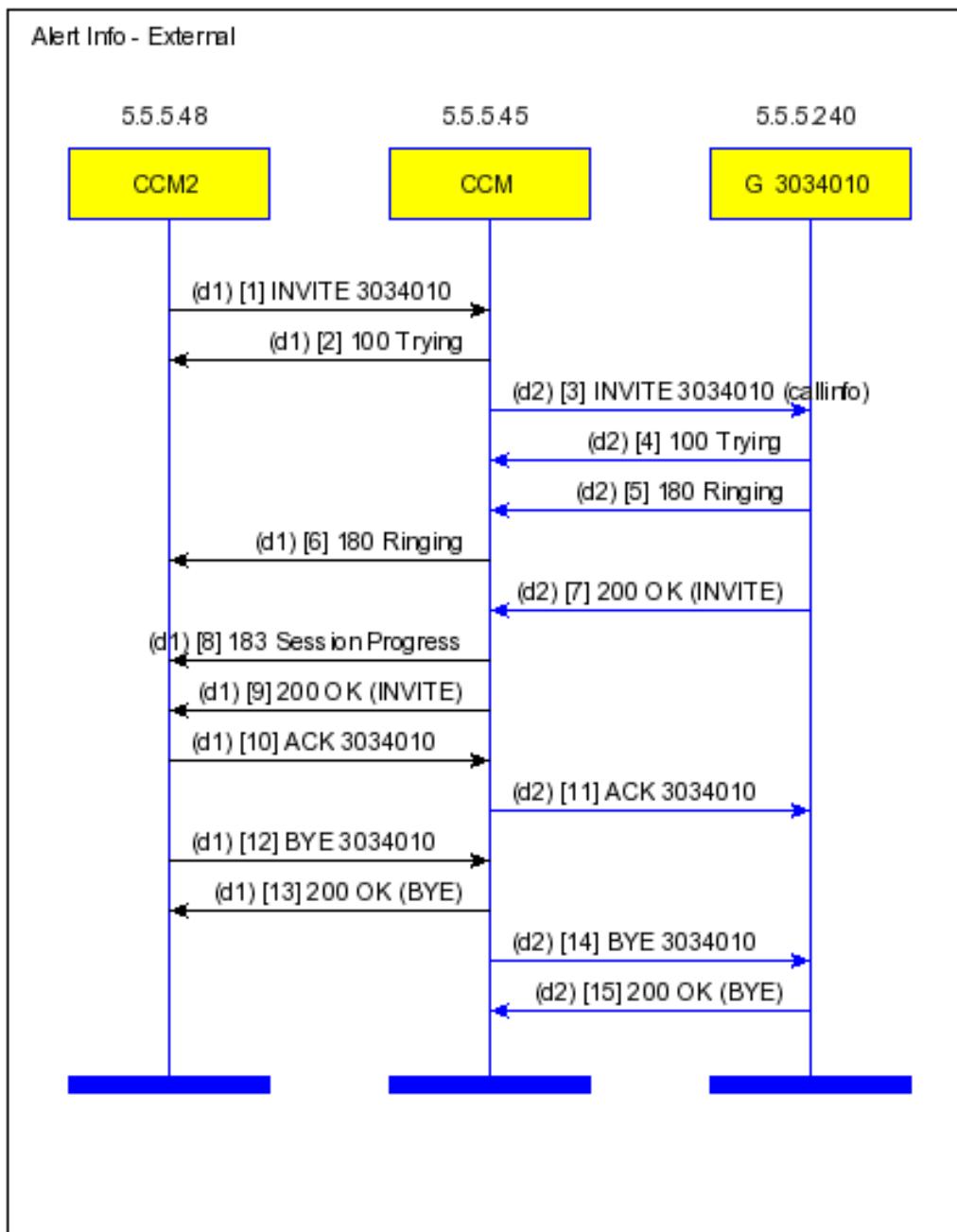
4251030 calls 3034010

Call arrives over a SIP-ICT trunk from CCM2

3034010 rings

3034010 answers

4251030 goes onhook



```
[diagram] Call-ID:[prev][next]
[1] INVITE sip:3034010@titan-pub.sipnet5.com:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.48:5060;branch=z9hG4bKb85ce6789c
Remote-Party-ID: "Craig" <sip:4251030@5.5.48>;party=calling;screen=yes;privacy=off
From: "Craig" <sip:4251030@5.5.48>;tag=0b9cbdc1-5d04-4647-ad92-d5daa256dd53-30464165
To: <sip:3034010@titan-pub.sipnet5.com>
Date: Sat, 09 Dec 2006 18:18:34 GMT
Call-ID: ad08be80-57a1fd8a-3806-30050505@5.5.48
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
CSeq: 101 INVITE
Contact: <sip:4251030@5.5.48:5060>
Expires: 180
Allow-Events: presence, kpml
Call-Info: <sip:5.5.48:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Session-Expires: 1800
Max-Forwards: 70
Content-Length: 0

[diagram] Call-ID:[prev][next]
[2] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.48:5060;branch=z9hG4bKb85ce6789c
From: "Craig" <sip:4251030@5.5.48>;tag=0b9cbdc1-5d04-4647-ad92-d5daa256dd53-30464165
To: <sip:3034010@titan-pub.sipnet5.com>
Date: Sat, 09 Dec 2006 18:18:34 GMT
Call-ID: ad08be80-57a1fd8a-3806-30050505@5.5.48
CSeq: 101 INVITE
Allow-Events: presence
Content-Length: 0

[diagram] Call-ID:[prev][next]
[3] INVITE sip:3034010@5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKbb778fb16
Remote-Party-ID: "Craig" <sip:4251030@5.5.45>;party=calling;screen=yes;privacy=off
From: "Craig" <sip:4251030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228593
To: <sip:3034010@5.5.240>
Date: Sat, 09 Dec 2006 18:18:34 GMT
Call-ID: ad08be80-57a1fd8a-a6-2d050505@5.5.45
Supported: timer,replaces
Min-SE: 1800
User-Agent: Cisco-CCM5.1
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; call-instance= 1
Alert-Info: <file://Bellcore-dr2/>
Contact: <sip:3034010@5.5.45:5060>
Max-Forwards: 69
Content-Length: 0

[diagram] Call-ID:[prev][next]
[4] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKbb778fb16
From: "Craig" <sip:4251030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228593
To: <sip:3034010@5.5.240>
Call-ID: ad08be80-57a1fd8a-a6-2d050505@5.5.45
Date: Sat, 09 Dec 2006 18:18:35 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.240:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.240>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0

[diagram] Call-ID:[prev][next]
[5] SIP/2.0 180 Ringing
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bKbb778fb16
From: "Craig" <sip:4251030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228593
To: <sip:3034010@5.5.240>;tag=001a2f8df17f003a25782ca6-248138cc
Call-ID: ad08be80-57a1fd8a-a6-2d050505@5.5.45
Date: Sat, 09 Dec 2006 18:18:35 GMT
CSeq: 101 INVITE
Server: Cisco-CP7960G/7.5
Contact: <sip:3034010@5.5.240:5060>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE
Remote-Party-ID: "3034010" <sip:3034010@5.5.240>;party=called;id-type=subscriber;privacy=off;screen=yes
Content-Length: 0
```

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 180 Ringing  
Via: SIP/2.0/UDP 5.5.48:5060;branch=z9hG4bKb85ce6789c  
From: "Craig" <sip:4251030@5.5.5.48>;tag=0b9cbdc1-5d04-4647-ad92-d5daa256dd53-30464165  
To: <sip:3034010@titan-pub.sipnet5.com>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228592  
Date: Sat, 09 Dec 2006 18:18:34 GMT  
Call-ID: ad08be80-57a1fd8a-3806-30050505@5.5.5.48  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034010@5.5.5.45:5060>  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[7] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKbb778fb16  
From: "Craig" <sip:4251030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228593  
To: <sip:3034010@5.5.5.240>;tag=001a2f8df17f003a25782ca6-248138cc  
Call-ID: ad08be80-57a1fd8a-a6-2d050505@5.5.5.45  
Date: Sat, 09 Dec 2006 18:18:38 GMT  
CSeq: 101 INVITE  
Server: Cisco-CP7960G/7.5  
Contact: <sip:3034010@5.5.5.240:5060>  
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
Remote-Party-ID: "3034010" <sip:3034010@5.5.5.240>;party=called;id-type=subscriber;privacy=off;screen=yes  
Supported: replaces  
Content-Length: 249  
Content-Type: application/sdp  
Content-Disposition: session;handling=optional

```
v=0
o=Cisco-SIPUA 11041 0 IN IP4 5.5.5.240
s=SIP Call
t=0 0
m=audio 26764 RTP/AVP 0 8 18 101
c=IN IP4 5.5.5.240
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:18 G729/8000
a=rtpmap:101 telephone-event/8000
a=fmtpt:101 0-15
a=sendrecv
```

[diagram] Call-ID:[prev][next]  
[8] SIP/2.0 183 Session Progress  
Via: SIP/2.0/UDP 5.5.5.48:5060;branch=z9hG4bKb85ce6789c  
From: "Craig" <sip:4251030@5.5.5.48>;tag=0b9cbdc1-5d04-4647-ad92-d5daa256dd53-30464165  
To: <sip:3034010@titan-pub.sipnet5.com>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228592  
Date: Sat, 09 Dec 2006 18:18:34 GMT  
Call-ID: ad08be80-57a1fd8a-3806-30050505@5.5.5.48  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3034010@5.5.5.45:5060>  
Content-Type: application/sdp  
Content-Length: 279

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26764 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=fmtpt:101 0-15
```

[diagram] Call-ID:[prev][next]  
[9] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.48:5060;branch=z9hG4bKb85ce6789c  
From: "Craig" <sip:4251030@5.5.5.48>;tag=0b9cbdc1-5d04-4647-ad92-d5daa256dd53-30464165  
To: <sip:3034010@titan-pub.sipnet5.com>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228592

```

Date: Sat, 09 Dec 2006 18:18:34 GMT
Call-ID: ad08be80-57a1fd8a-3806-30050505@5.5.5.48
CSeq: 101 INVITE
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Allow-Events: presence
Remote-Party-ID: "SIP Basic 3034010" <sip:3034010@5.5.5.45>;party=called;screen=yes;privacy=off
Contact: <sip:3034010@5.5.5.45:5060>
Supported: replaces
Session-Expires: 1800;refresher=uas
Require: timer
Content-Type: application/sdp
Content-Length: 279

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.240
t=0 0
m=audio 26764 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]
[10] ACK sip:3034010@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.48:5060;branch=z9hG4bKb91fb0fce8
From: "Craig" <sip:4251030@5.5.48>;tag=0b9cbdc1-5d04-4647-ad92-d5daa256dd53-30464165
To: <sip:3034010@titan-pub.sipnet5.com>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228592
Date: Sat, 09 Dec 2006 18:18:34 GMT
Call-ID: ad08be80-57a1fd8a-3806-30050505@5.5.5.48
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence, kpml
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.48
s=SIP Call
c=IN IP4 5.5.5.221
t=0 0
m=audio 18930 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:3034010@5.5.5.240:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKbc1991bf1f
From: "Craig" <sip:4251030@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228593
To: <sip:3034010@5.5.5.240>;tag=001a2f8df17f003a25782ca6-248138cc
Date: Sat, 09 Dec 2006 18:18:34 GMT
Call-ID: ad08be80-57a1fd8a-a6-2d050505@5.5.5.45
Max-Forwards: 70
CSeq: 101 ACK
Allow-Events: presence
Content-Type: application/sdp
Content-Length: 205

v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.221
t=0 0
m=audio 18930 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]
[12] BYE sip:3034010@5.5.5.45:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.5.48:5060;branch=z9hG4bKba7438b6d2
From: "Craig" <sip:4251030@5.5.5.48>;tag=0b9cbdc1-5d04-4647-ad92-d5daa256dd53-30464165

```

To: <sip:3034010@titan-pub.sipnet5.com>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228592  
 Date: Sat, 09 Dec 2006 18:18:34 GMT  
 Call-ID: ad08be80-57a1fd8a-3806-30050505@5.5.5.48  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 102 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [13] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.48:5060;branch=z9hG4bKba7438b6d2  
 From: "Craig" <sip:4251030@5.5.5.48>;tag=0b9cbdc1-5d04-4647-ad92-d5daa256dd53-30464165  
 To: <sip:3034010@titan-pub.sipnet5.com>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228592  
 Date: Sat, 09 Dec 2006 18:18:45 GMT  
 Call-ID: ad08be80-57a1fd8a-3806-30050505@5.5.5.48  
 CSeq: 102 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [14] BYE sip:3034010@5.5.5.240:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKbda3f060f  
 From: "Craig" <sip:4251030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228593  
 To: <sip:3034010@5.5.5.240>;tag=001a2f8df17f003a25782ca6-248138cc  
 Date: Sat, 09 Dec 2006 18:18:34 GMT  
 Call-ID: ad08be80-57a1fd8a-a6-2d050505@5.5.5.45  
 User-Agent: Cisco-CCM5.1  
 Max-Forwards: 70  
 CSeq: 102 BYE  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [15] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bKbda3f060f  
 From: "Craig" <sip:4251030@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228593  
 To: <sip:3034010@5.5.5.240>;tag=001a2f8df17f003a25782ca6-248138cc  
 Call-ID: ad08be80-57a1fd8a-a6-2d050505@5.5.5.45  
 Date: Sat, 09 Dec 2006 18:18:46 GMT  
 CSeq: 102 BYE  
 Server: Cisco-CP7960G/7.5  
 Content-Length: 0

## 9. Message Waiting Indicator

### 9.1 Message Waiting Indication On

Title: Message Waiting Indication On

Description:

Line 3033100 on phone F has voicemail configured but no messages currently waiting and is configured via CCM for Call Forward All to voicemail.

Note phone F may have lines other than 3033100. However this scenario focuses on Line 3033100.

Line 3033110 on phone A calls line 3033100 on phone F and is forwarded to the voicemail server. The user at phone A leaves a message.

The voicemail server will inform CCM and CCM will inform phone F of the new message waiting on state.

Notice the "NOTIFY" sent to phone F with a "Messages-Waiting: yes" body.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = E, Line = 3033110, IP = 5.5.5.230, Model = SIP 7960

Phone = F, Line = 3033100, IP = 5.5.5.226, Model = SIP 7960

Node = Voicemail Server, IP = 172.18.203.82

Scenario:

3033110 calls 3033100

3033100 does not ring

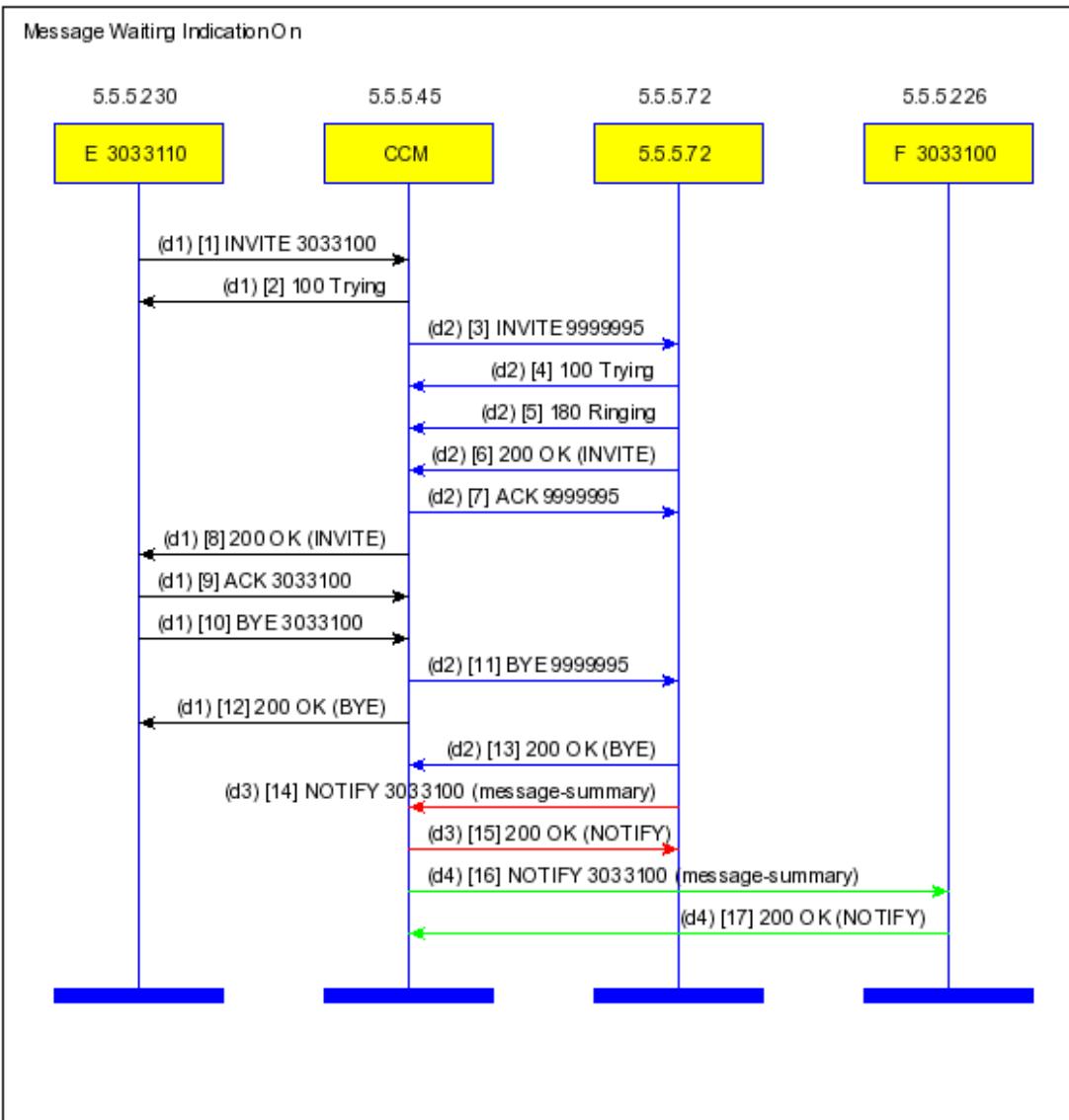
Voicemail server rings and answers

3033110 leaves message

3033110 goes onhook

Voicemail server notifies CCM of Phone F's MWI state

CCM notifies phone F of its MWI state



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

**[1] INVITE sip:3033100@titan-pub SIP/2.0**

Via: SIP/2.0/UDP 5.5.5.230:5060;branch=z9hG4bK739d2477  
 From: "Vicky" <sip:3033100@titan-pub>;tag=000ab8f5aa21000a4c5b4d9a-356178ad  
 To: <sip:3033100@titan-pub>  
 Call-ID: 000ab8f5-aa21000a-5318afe9-1d7b9f98@5.5.5.230  
 Max-Forwards: 70  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/8.0  
 Contact: <sip:3033110@5.5.5.230:5060;transport=udp>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "Vicky" <sip:3033110@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 268  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 797 0 IN IP4 5.5.5.230  
 s=SIP Call  
 t=0 0  
 m=audio 30234 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.230  
 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 5.5.5.230:5060;branch=z9hG4bK739d2477  
 From: "Vicky" <sip:3033110@titan-pub>;tag=000ab8f5aa21000a4c5b4d9a-356178ad  
 To: <sip:3033100@titan-pub>  
 Date: Mon, 18 Dec 2006 00:16:07 GMT  
 Call-ID: 000ab8f5-aa21000a-5318afe9-1d7b9f98@5.5.5.230  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:9999995@janus-unity.sipnet5.com:5090 SIP/2.0**

Via: SIP/2.0/TCP 5.5.5.45;branch=z9hG4bK1206bade43b  
 Remote-Party-ID: "Vicky" <sip:3033110@5.5.5.45>;party=calling;screen=yes;privacy=off  
 From: "Vicky" <sip:3033110@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228644  
 To: <sip:9999995@janus-unity.sipnet5.com>  
 Date: Mon, 18 Dec 2006 00:16:07 GMT  
 Call-ID: f352c300-5851ddc7-404b-2d050505@5.5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 101 INVITE  
 Contact: <sip:3033110@5.5.5.45:5090;transport=tcp>  
 Expires: 180  
 Allow-Events: presence  
 Session-Expires: 1800  
 Diversion: "Tripti" <sip:3033100@5.5.5.45>;reason=unconditional;privacy=off;screen=yes  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

From: "Vicky" <sip:3033110@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228644  
 To: <sip:9999995@janus-unity.sipnet5.com>;tag=93BFB680DDF74C8CAA7A3DF8738BD60D  
 Via: SIP/2.0/TCP 5.5.5.45;branch=z9hG4bK1206bade43b  
 Call-ID: f352c300-5851ddc7-404b-2d050505@5.5.5.45  
 CSeq: 101 INVITE  
 Content-Length: 0

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

**[5] SIP/2.0 180 Ringing**

From: "Vicky" <sip:3033110@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228644  
 To: <sip:9999995@janus-unity.sipnet5.com>;tag=93BFB680DDF74C8CAA7A3DF8738BD60D  
 Via: SIP/2.0/TCP 5.5.5.45;branch=z9hG4bK1206bade43b  
 Via: SIP/2.0/TCP 5.5.5.45;branch=z9hG4bK1206bade43b  
 Call-ID: f352c300-5851ddc7-404b-2d050505@5.5.5.45

CSeq: 101 INVITE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[6] SIP/2.0 200 OK  
From: "Vicky" <sip:3033110@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228644  
To: <sip:9999995@janus-unity.sipnet5.com>;tag=93BFB680DDF74C8CAA7A3DF8738BD60D  
Via: SIP/2.0/TCP 5.5.5.45;branch=z9hG4bK1206bade43b  
Contact: sip:9999995@5.5.5.72:5090  
Call-ID: f352c300-5851ddc7-404b-2d050505@5.5.5.45  
CSeq: 101 INVITE  
Content-Length: 249  
Content-Type: application/sdp

```
v=0
o=5.5.5.72 3279210235 3279210235 IN IP4 5.5.5.72
s=No Subject
c=IN IP4 5.5.5.72
t=0 0
m=audio 22812 RTP/AVP 0 18 101
a=rtpmap:0 pcmu/8000
a=ptime:20
a=rtpmap:18 G729/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtpp:101 0-15
```

[diagram] Call-ID:[prev][next]  
[7] ACK sip:9999995@5.5.5.72:5090 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5090;branch=z9hG4bK1215b9f75dd  
From: "Vicky" <sip:3033110@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228644  
To: <sip:9999995@janus-unity.sipnet5.com>;tag=93BFB680DDF74C8CAA7A3DF8738BD60D  
Date: Mon, 18 Dec 2006 00:16:07 GMT  
Call-ID: f352c300-5851ddc7-404b-2d050505@5.5.5.45  
Max-Forwards: 70  
CSeq: 101 ACK  
Allow-Events: presence  
Content-Type: application/sdp  
Content-Length: 205

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.230
t=0 0
m=audio 30234 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtpp:101 0-15
```

[diagram] Call-ID:[prev][next]  
[8] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.230:5060;branch=z9hG4bK739d2477  
From: "Vicky" <sip:3033110@titan-pub>;tag=000ab8f5aa21000a4c5b4d9a-356178ad  
To: <sip:3033100@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228641  
Date: Mon, 18 Dec 2006 00:16:07 GMT  
Call-ID: 000ab8f5-aa21000a-5318afe9-1d7b9f98@5.5.5.230  
CSeq: 101 INVITE  
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
Allow-Events: presence  
Remote-Party-ID: <sip:9999995@5.5.5.45>;party=called;screen=yes;privacy=off  
Contact: <sip:3033100@5.5.5.45:5060>  
Supported: replaces  
Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; call-instance= 1  
Content-Type: application/sdp  
Content-Length: 204

```
v=0
o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45
s=SIP Call
c=IN IP4 5.5.5.72
t=0 0
m=audio 22812 RTP/AVP 0 101
a=rtpmap:0 PCMU/8000
a=ptime:20
a=rtpmap:101 telephone-event/8000
a=fmtpp:101 0-15
```

[diagram] Call-ID:[prev][next]  
[9] ACK sip:3033100@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.230:5060;branch=z9hG4bK37de31b6  
From: "Vicky" <sip:3033110@titan-pub>;tag=000ab8f5aa21000a4c5b4d9a-356178ad  
To: <sip:3033100@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228641  
Call-ID: 000ab8f5-aa21000a-5318afe9-1d7b9f98@5.5.5.230  
Max-Forwards: 70  
CSeq: 101 ACK  
User-Agent: Cisco-CP7960G/8.0  
Remote-Party-ID: "Vicky" <sip:3033110@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[10] BYE sip:3033100@5.5.5.45:5060 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.230:5060;branch=z9hG4bK42fdf8ec  
From: "Vicky" <sip:3033110@titan-pub>;tag=000ab8f5aa21000a4c5b4d9a-356178ad  
To: <sip:3033100@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228641  
Call-ID: 000ab8f5-aa21000a-5318afe9-1d7b9f98@5.5.5.230  
Max-Forwards: 70  
CSeq: 102 BYE  
User-Agent: Cisco-CP7960G/8.0  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[11] BYE sip:9999995@5.5.5.72:5090 SIP/2.0  
Via: SIP/2.0/UDP 5.5.5.45:5090;branch=z9hG4bK12263f74795  
From: "Vicky" <sip:3033110@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228644  
To: <sip:9999995@janus-unity.sipnet5.com>;tag=93BFB680DDF74C8CAA7A3DF8738BD60D  
Date: Mon, 18 Dec 2006 00:16:07 GMT  
Call-ID: f352c300-5851ddc7-404b-2d050505@5.5.5.45  
User-Agent: Cisco-CCM5.1  
Max-Forwards: 70  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[12] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.230:5060;branch=z9hG4bK42fdf8ec  
From: "Vicky" <sip:3033110@titan-pub>;tag=000ab8f5aa21000a4c5b4d9a-356178ad  
To: <sip:3033100@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228641  
Date: Mon, 18 Dec 2006 00:16:25 GMT  
Call-ID: 000ab8f5-aa21000a-5318afe9-1d7b9f98@5.5.5.230  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[13] SIP/2.0 200 OK  
From: "Vicky" <sip:3033110@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228644  
To: <sip:9999995@janus-unity.sipnet5.com>;tag=93BFB680DDF74C8CAA7A3DF8738BD60D  
Via: SIP/2.0/UDP 5.5.5.45:5090;branch=z9hG4bK12263f74795  
Call-ID: f352c300-5851ddc7-404b-2d050505@5.5.5.45  
CSeq: 102 BYE  
Content-Length: 0

[diagram] Call-ID:[prev][next]  
[14] NOTIFY sip:3033100@5.5.5.45 SIP/2.0  
From: sip:9999995@5.5.5.72:5090;tag=91E9B103561D4A0C83E30C29FD57CBCC  
To: sip:3033100@5.5.5.45  
Via: SIP/2.0/UDP 5.5.5.72:5090;branch=z9hG4bK9B17E7BF69F34907B25FA8D2F2B48AE9  
Max-Forwards: 70  
Contact: sip:9999995@5.5.5.72:5090  
Call-ID: CCDDD95C89364132AE4EF71355DA0F68@5.5.5.45  
CSeq: 300 NOTIFY  
Event: message-summary  
Content-Length: 23  
Content-Type: text/plain  
  
Messages-Waiting: yes

[diagram] Call-ID:[prev][next]  
[15] SIP/2.0 200 OK  
Via: SIP/2.0/UDP 5.5.5.72:5090;branch=z9hG4bK9B17E7BF69F34907B25FA8D2F2B48AE9  
From: sip:9999995@5.5.5.72:5090;tag=91E9B103561D4A0C83E30C29FD57CBCC  
To: sip:3033100@5.5.5.45;tag=1103226381  
Date: Mon, 18 Dec 2006 00:16:25 GMT  
Call-ID: CCDDD95C89364132AE4EF71355DA0F68@5.5.5.45  
CSeq: 300 NOTIFY  
Content-Length: 0

```
[diagram] Call-ID:[prev][next]
[16] NOTIFY sip:3033100@5.5.5.226:5060;transport=udp SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK12313daf77
From: <sip:3033100@5.5.5.45>;tag=864250443
To: <sip:3033100@5.5.5.226>
Call-ID: fea5ee80-5851ddda-404c-2d050505@5.5.5.45
CSeq: 101 NOTIFY
Max-Forwards: 70
Date: Mon, 18 Dec 2006 00:16:26 GMT
User-Agent: Cisco-CCM5.1
Event: message-summary
Subscription-State: active
Contact: <sip:3033100@5.5.5.45:5060>
Content-Type: application/simple-message-summary
Content-Length: 23

Messages-Waiting: yes
```

```
[diagram] Call-ID:[prev][next]
[17] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK12313daf77
From: <sip:3033100@5.5.5.45>;tag=864250443
To: <sip:3033100@5.5.5.226>
Call-ID: fea5ee80-5851ddda-404c-2d050505@5.5.5.45
CSeq: 101 NOTIFY
Content-Length: 0
```

## 9.2 Message Waiting Indication Off

Title: Message Waiting Indication Off

Description:

Line 3033100 on phone F has voicemail configured with one or more messages currently waiting. Note this phone may have lines other than 3033100. However this scenario focuses on Line 3033100.

Line 3033100 on phone F calls the voicemail server and accesses their voicemail account and listens to all new messages

The voicemail server will inform CCM and CCM will inform phone F of the new message waiting off state

Notice the "NOTIFY" sent to phone F with "Messages-Waiting: no" body for Line 3033100.

Configuration:

Node = CCM, IP = 5.5.5.45

Node = Voicemail Server, IP = 5.5.5.72

Phone = F, Line = 3033100, IP = 5.5.5.226, Model = SIP 7960

Scenario:

3033100 calls voicemail server

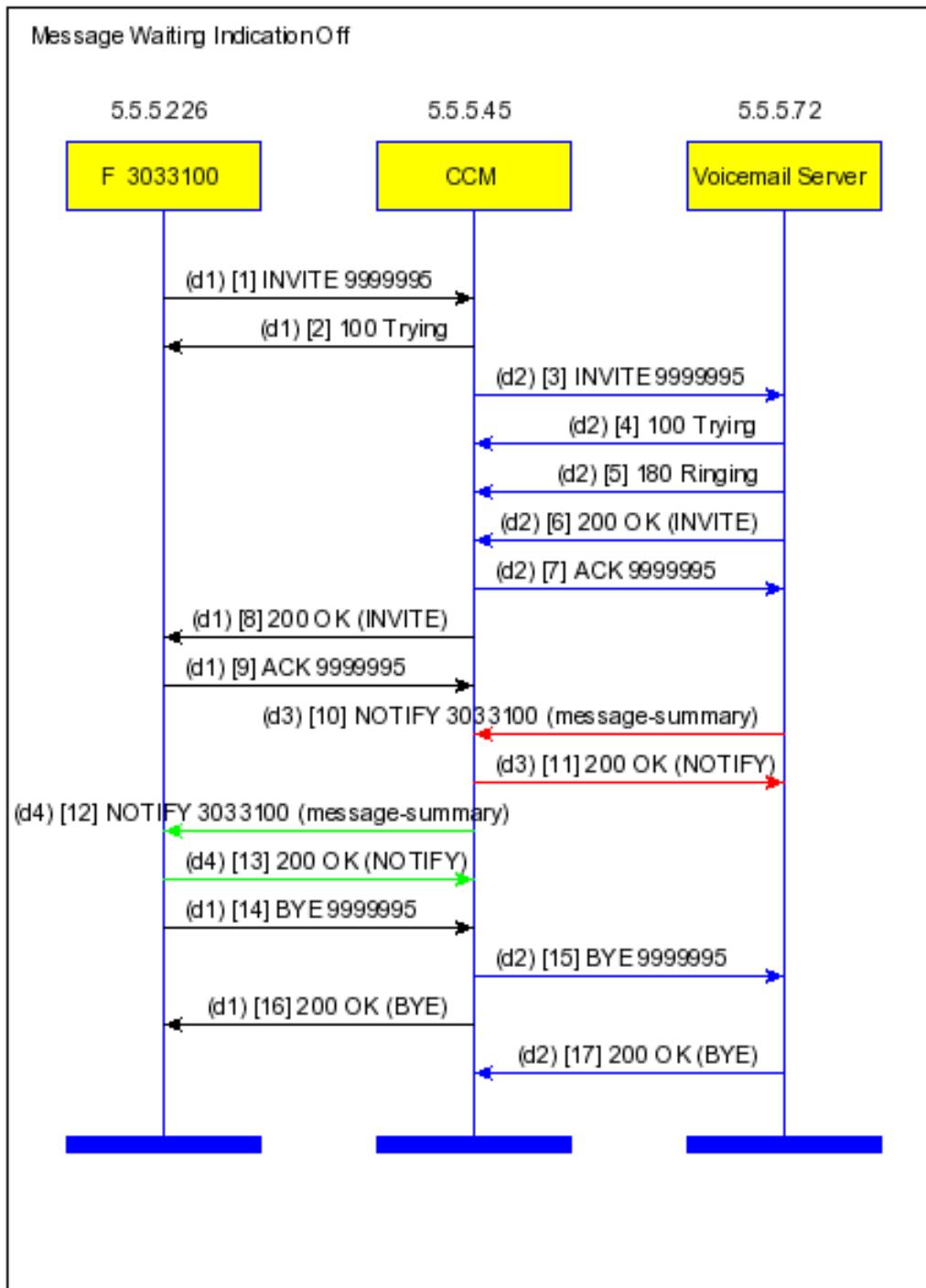
Voicemail server rings and answers

3033100 checks messages

Voicemail server notifies CCM of Phone F's MWI state

CCM notifies phone F of its MWI state

3033100 goes onhook



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

**[1] INVITE sip:9999995@titan-pub SIP/2.0**

Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK68844e37  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf000a62502750-18ee9bff  
 To: <sip:9999995@titan-pub>  
 Call-ID: 000ab8f5-aadf000a-1bd71e49-73a18569@5.5.226  
 Max-Forwards: 70  
 CSeq: 101 INVITE  
 User-Agent: Cisco-CP7960G/8.0  
 Contact: <sip:3033100@5.5.226:5060;transport=udp>  
 Expires: 180  
 Accept: application/sdp  
 Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE  
 Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 270  
 Content-Type: application/sdp  
 Content-Disposition: session;handling=optional

v=0  
 o=Cisco-SIPUA 20843 0 IN IP4 5.5.5.226  
 s=SIP Call  
 t=0 0  
 m=audio 23076 RTP/AVP 0 8 18 101  
 c=IN IP4 5.5.5.226  
 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 5.5.226:5060;branch=z9hG4bK68844e37  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf000a62502750-18ee9bff  
 To: <sip:9999995@titan-pub>  
 Date: Mon, 18 Dec 2006 00:26:46 GMT  
 Call-ID: 000ab8f5-aadf000a-1bd71e49-73a18569@5.5.226  
 CSeq: 101 INVITE  
 Allow-Events: presence  
 Content-Length: 0

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

**[3] INVITE sip:9999995@janus-unity.sipnet5.com:5090 SIP/2.0**

Via: SIP/2.0/TCP 5.5.45;branch=z9hG4bK1283fd033d1  
 Remote-Party-ID: "Tripti" <sip:3033100@5.5.45>;party=calling;screen=yes;privacy=off  
 From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228647  
 To: <sip:9999995@janus-unity.sipnet5.com>  
 Date: Mon, 18 Dec 2006 00:26:46 GMT  
 Call-ID: 70326c80-5851e046-4059-2d050505@5.5.45  
 Supported: timer,replaces  
 Min-SE: 1800  
 User-Agent: Cisco-CCM5.1  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 CSeq: 101 INVITE  
 Contact: <sip:3033100@5.5.45:5090;transport=tcp>  
 Expires: 180  
 Allow-Events: presence  
 Session-Expires: 1800  
 Max-Forwards: 69  
 Content-Length: 0

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

**[4] SIP/2.0 100 Trying**

From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228647  
 To: <sip:9999995@janus-unity.sipnet5.com>;tag=4F3C8BCCB0214F7680092BA03483F0D3  
 Via: SIP/2.0/TCP 5.5.45;branch=z9hG4bK1283fd033d1  
 Call-ID: 70326c80-5851e046-4059-2d050505@5.5.45  
 CSeq: 101 INVITE  
 Content-Length: 0

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

**[5] SIP/2.0 180 Ringing**

From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefeb43-9497-4bf5-a407-909c95e47fb7-32228647  
 To: <sip:9999995@janus-unity.sipnet5.com>;tag=4F3C8BCCB0214F7680092BA03483F0D3  
 Via: SIP/2.0/TCP 5.5.45;branch=z9hG4bK1283fd033d1  
 Via: SIP/2.0/TCP 5.5.45;branch=z9hG4bK1283fd033d1  
 Call-ID: 70326c80-5851e046-4059-2d050505@5.5.45  
 CSeq: 101 INVITE

Content-Length: 0

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

[6] SIP/2.0 200 OK

From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228647  
 To: <sip:9999995@janus-unity.sipnet5.com>;tag=4F3C8BCCB0214F7680092BA03483F0D3  
 Via: SIP/2.0/TCP 5.5.5.45;branch=z9hG4bK1283fd033d1  
 Contact: sip:9999995@5.5.5.72:5090  
 Call-ID: 70326c80-5851e046-4059-2d050505@5.5.5.45  
 CSeq: 101 INVITE  
 Content-Length: 249  
 Content-Type: application/sdp

v=0  
 o=5.5.5.72 3279848501 3279848501 IN IP4 5.5.5.72  
 s=No Subject  
 c=IN IP4 5.5.5.72  
 t=0 0  
 m=audio 22814 RTP/AVP 0 18 101  
 a=rtpmap:0 pcmu/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:9999995@5.5.5.72:5090 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.45:5090;branch=z9hG4bK129707fffc1  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228647  
 To: <sip:9999995@janus-unity.sipnet5.com>;tag=4F3C8BCCB0214F7680092BA03483F0D3  
 Date: Mon, 18 Dec 2006 00:26:46 GMT  
 Call-ID: 70326c80-5851e046-4059-2d050505@5.5.5.45  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 Allow-Events: presence  
 Content-Type: application/sdp  
 Content-Length: 205

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.226  
 t=0 0  
 m=audio 23076 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]

[8] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK68844e37  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf000a62502750-18ee9bff  
 To: <sip:9999995@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228646  
 Date: Mon, 18 Dec 2006 00:26:46 GMT  
 Call-ID: 000ab8f5-aadf000a-1bd71e49-73a18569@5.5.5.226  
 CSeq: 101 INVITE  
 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY  
 Allow-Events: presence  
 Remote-Party-ID: <sip:9999995@5.5.5.45>;party=called;screen=yes;privacy=off  
 Contact: <sip:9999995@5.5.5.45:5060>  
 Supported: replaces  
 Call-Info: <urn:x-cisco-remotecc:callinfo>; security= NotAuthenticated; orientation= to; call-instance= 1  
 Content-Type: application/sdp  
 Content-Length: 204

v=0  
 o=CiscoSystemsCCM-SIP 2000 1 IN IP4 5.5.5.45  
 s=SIP Call  
 c=IN IP4 5.5.5.72  
 t=0 0  
 m=audio 22814 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:9999995@5.5.5.45:5060 SIP/2.0

Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK4a356075  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf000a62502750-18ee9bff  
 To: <sip:9999995@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228646  
 Call-ID: 000ab8f5-aadf000a-lbd71e49-73a18569@5.5.5.226  
 Max-Forwards: 70  
 CSeq: 101 ACK  
 User-Agent: Cisco-CP7960G/8.0  
 Remote-Party-ID: "Tripti" <sip:3033100@titan-pub>;party=calling;id-type=subscriber;privacy=off;screen=yes  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [10] NOTIFY sip:3033100@5.5.5.45 SIP/2.0  
 From: sip:9999995@5.5.5.72:5090;tag=EDC304CD1BB24BC483EA3C498B689BAD  
 To: sip:3033100@5.5.5.45  
 Via: SIP/2.0/UDP 5.5.5.72:5090;branch=z9hG4bKFBC3F2376D546C481EA85C7F2531E61  
 Max-Forwards: 70  
 Contact: sip:9999995@5.5.5.72:5090  
 Call-ID: D0A20D59709F4473A800846D4AF70952@5.5.5.45  
 CSeq: 300 NOTIFY  
 Event: message-summary  
 Content-Length: 22  
 Content-Type: text/plain

Messages-Waiting: no

[diagram] Call-ID:[prev][next]  
 [11] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.72:5090;branch=z9hG4bKFBC3F2376D546C481EA85C7F2531E61  
 From: sip:9999995@5.5.5.72:5090;tag=EDC304CD1BB24BC483EA3C498B689BAD  
 To: sip:3033100@5.5.5.45;tag=610781174  
 Date: Mon, 18 Dec 2006 00:27:03 GMT  
 Call-ID: D0A20D59709F4473A800846D4AF70952@5.5.5.45  
 CSeq: 300 NOTIFY  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [12] NOTIFY sip:3033100@5.5.5.226:5060;transport=udp SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK12a68b9d6d4  
 From: <sip:3033100@5.5.5.45>;tag=1508647303  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: 7a546b00-5851e057-405a-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 00:27:03 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: message-summary  
 Subscription-State: active  
 Contact: <sip:3033100@5.5.5.45:5060>  
 Content-Type: application/simple-message-summary  
 Content-Length: 22

Messages-Waiting: no

[diagram] Call-ID:[prev][next]  
 [13] SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK12a68b9d6d4  
 From: <sip:3033100@5.5.5.45>;tag=1508647303  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: 7a546b00-5851e057-405a-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [14] BYE sip:9999995@5.5.5.45:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK0a12d18d  
 From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf000a62502750-18ee9bff  
 To: <sip:9999995@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228646  
 Call-ID: 000ab8f5-aadf000a-lbd71e49-73a18569@5.5.5.226  
 Max-Forwards: 70  
 CSeq: 102 BYE  
 User-Agent: Cisco-CP7960G/8.0  
 Content-Length: 0

[diagram] Call-ID:[prev][next]  
 [15] BYE sip:9999995@5.5.5.72:5090 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.5.45:5090;branch=z9hG4bK12b27d86038  
 From: "Tripti" <sip:3033100@5.5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228647  
 To: <sip:9999995@janus-unity.sipnet5.com>;tag=4F3C8BCCB0214F7680092BA03483F0D3  
 Date: Mon, 18 Dec 2006 00:26:46 GMT  
 Call-ID: 70326c80-5851e046-4059-2d050505@5.5.5.45

User-Agent: Cisco-CCM5.1

Max-Forwards: 70

CSeq: 102 BYE

Content-Length: 0

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

[16] SIP/2.0 200 OK

Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK0a12d18d

From: "Tripti" <sip:3033100@titan-pub>;tag=000ab8f5aadf000a62502750-18ee9bff

To: <sip:9999995@titan-pub>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228646

Date: Mon, 18 Dec 2006 00:27:29 GMT

Call-ID: 000ab8f5-aadf000a-1bd71e49-73a18569@5.5.226

CSeq: 102 BYE

Content-Length: 0

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

[17] SIP/2.0 200 OK

From: "Tripti" <sip:3033100@5.5.45>;tag=a4fefb43-9497-4bf5-a407-909c95e47fb7-32228647

To: <sip:9999995@janus-unity.sipnet5.com>;tag=4F3C8BCCB0214F7680092BA03483F0D3

Via: SIP/2.0/UDP 5.5.45:5090;branch=z9hG4bK12b27d86038

Call-ID: 70326c80-5851e046-4059-2d050505@5.5.45

CSeq: 102 BYE

Content-Length: 0

### 9.3 Message Waiting Indication On at Registration

Title: Message Waiting Indication On at Registration

Description:

Line 3033100 on phone F has voicemail configured with one or more messages currently waiting. Note this phone may have lines other than 3033100.

However this scenario focuses on Line 3033100.

When phone F first registers line 3033100 (either when it's created or after a power cycles, for example) CCM will inform the phone of line 3033100's MWI state.

In this case, CCM will send a NOTIFY containing a "Messages-Waiting: yes" body for Line 3033100.

Configuration:

Node = CCM, IP = 5.5.5.45

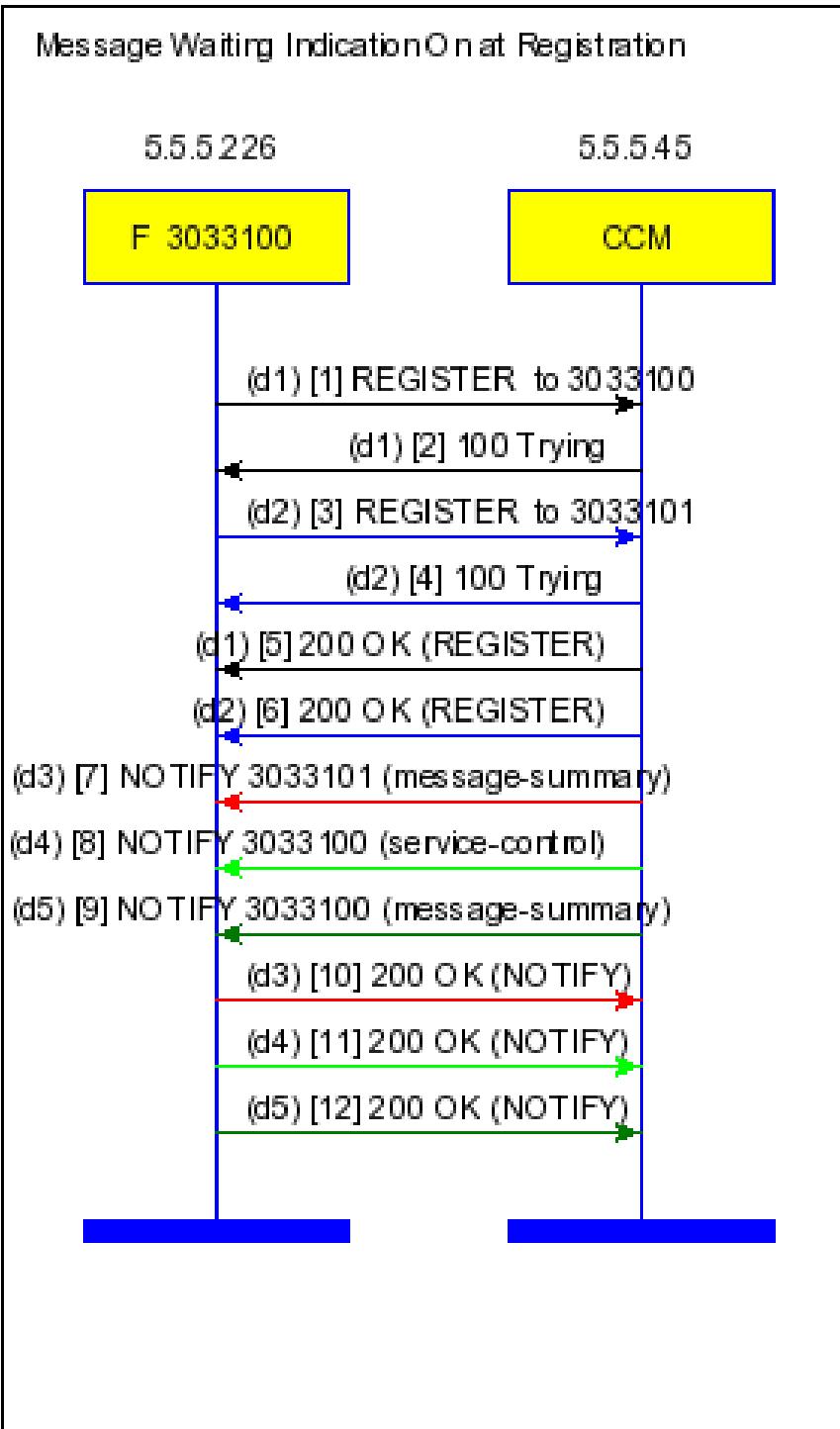
Phone = F, Line = 3033100, IP = 5.5.5.226, Model = SIP 7960

Scenario:

Phone F is powered on

Phone F gets NOTIFY with "Messages-Waiting: yes" for line 3033100.

(See Registration section for complete details)



```
[diagram] Call-ID:[prev][next]
[1] REGISTER sip:titan-pub SIP/2.0
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK6553eae2
From: <sip:3033100@titan-pub>;tag=000ab8f5aadf00026cd0b2e3-7f6cb1af
To: <sip:3033100@titan-pub>
Call-ID: 000ab8f5-aadf0003-6067ff24-7dca309b@5.5.5.226
Max-Forwards: 70
CSeq: 101 REGISTER
User-Agent: Cisco-CP7960G/8.0
Contact: <sip:3033100@5.5.5.226:5060;transport=udp>;+sip.instance=<urn:uuid:00000000-0000-0000-0000-0000-0000ab8f5aadf>;+u.sip!model.ccm.cisco.com="7"
Supported: replaces,join,norefsub,X-cisco-callinfo,X-cisco-service-control
Content-Length: 0
Expires: 3600

[diagram] Call-ID:[prev][next]
[2] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK6553eae2
From: <sip:3033100@titan-pub>;tag=000ab8f5aadf00026cd0b2e3-7f6cb1af
To: <sip:3033100@titan-pub>
Date: Mon, 18 Dec 2006 00:24:29 GMT
Call-ID: 000ab8f5-aadf0003-6067ff24-7dca309b@5.5.5.226
CSeq: 101 REGISTER
Content-Length: 0

[diagram] Call-ID:[prev][next]
[3] REGISTER sip:titan-pub SIP/2.0
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK4de97657
From: <sip:3033101@titan-pub>;tag=000ab8f5aadf00034eb8f934-131c9c10
To: <sip:3033101@titan-pub>
Call-ID: 000ab8f5-aadf0004-6aefc9de-680b7834@5.5.5.226
Max-Forwards: 70
CSeq: 101 REGISTER
User-Agent: Cisco-CP7960G/8.0
Contact: <sip:3033101@5.5.5.226:5060;transport=udp>;+sip.instance=<urn:uuid:00000000-0000-0000-0000-0000-0000ab8f5aadf>;+u.sip!model.ccm.cisco.com="7"
Supported: replaces,join,norefsub,X-cisco-callinfo,X-cisco-service-control
Content-Length: 0
Expires: 3600

[diagram] Call-ID:[prev][next]
[4] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK4de97657
From: <sip:3033101@titan-pub>;tag=000ab8f5aadf00034eb8f934-131c9c10
To: <sip:3033101@titan-pub>
Date: Mon, 18 Dec 2006 00:24:30 GMT
Call-ID: 000ab8f5-aadf0004-6aefc9de-680b7834@5.5.5.226
CSeq: 101 REGISTER
Content-Length: 0

[diagram] Call-ID:[prev][next]
[5] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK6553eae2
From: <sip:3033100@titan-pub>;tag=000ab8f5aadf00026cd0b2e3-7f6cb1af
To: <sip:3033100@titan-pub>;tag=1206021050
Date: Mon, 18 Dec 2006 00:24:29 GMT
Call-ID: 000ab8f5-aadf0003-6067ff24-7dca309b@5.5.5.226
CSeq: 101 REGISTER
Expires: 180
Contact: <sip:3033100@5.5.5.226:5060;transport=udp>;+sip.instance=<urn:uuid:00000000-0000-0000-0000-0000-0000ab8f5aadf>;+u.sip!model.ccm.cisco.com="7";x-cisco-newreg
Content-Length: 0

[diagram] Call-ID:[prev][next]
[6] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.5.226:5060;branch=z9hG4bK4de97657
From: <sip:3033101@titan-pub>;tag=000ab8f5aadf00034eb8f934-131c9c10
To: <sip:3033101@titan-pub>;tag=1469004476
Date: Mon, 18 Dec 2006 00:24:30 GMT
Call-ID: 000ab8f5-aadf0004-6aefc9de-680b7834@5.5.5.226
CSeq: 101 REGISTER
Expires: 900
Contact: <sip:3033101@5.5.5.226:5060;transport=udp>;+sip.instance=<urn:uuid:00000000-0000-0000-0000-0000-0000ab8f5aadf>;+u.sip!model.ccm.cisco.com="7"
Content-Length: 0

[diagram] Call-ID:[prev][next]
[7] NOTIFY sip:3033101@5.5.5.226:5060;transport=udp SIP/2.0
Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK12753ab3047
From: <sip:3033101@5.5.5.45>;tag=1808967241
```

To: <sip:3033101@5.5.5.226>  
 Call-ID: 1f227880-5851dfbe-4057-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 00:24:30 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: message-summary  
 Subscription-State: active  
 Contact: <sip:3033101@5.5.5.45:5060>  
 Content-Type: application/simple-message-summary  
 Content-Length: 22

Messages-Waiting: no

**[diagram]** Call-ID:[prev] [next]  
**[8]** NOTIFY sip:3033100@5.5.5.226:5060 SIP/2.0  
 Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK1255bdbc716  
 From: <sip:5.5.5.45>;tag=2118413947  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: 1f227880-5851dfbe-4055-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 00:24:30 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: service-control  
 Subscription-State: active  
 Contact: <sip:5.5.5.45:5060>  
 Content-Type: text/plain  
 Content-Length: 226

action=check-version  
 RegisterCallId={000ab8f5-aadf0003-6067ff24-7dca309b@5.5.5.226}  
 ConfigVersionStamp={1166400655-2c0a5506-d9c8-4031-8412-b92cfcc63fbfb}  
 DialplanVersionStamp={1162847372-2753d185-6e60-4c10-9a06-6237961bef11}

**[diagram]** Call-ID:[prev] [next]  
**[9]** NOTIFY sip:3033100@5.5.5.226:5060;transport=udp SIP/2.0  
 Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK1266a523f3f  
 From: <sip:3033100@5.5.5.45>;tag=1348227209  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: 1f227880-5851dfbe-4056-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 00:24:30 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: message-summary  
 Subscription-State: active  
 Contact: <sip:3033100@5.5.5.45:5060>  
 Content-Type: application/simple-message-summary  
 Content-Length: 23

Messages-Waiting: yes

**[diagram]** Call-ID:[prev] [next]  
**[10]** SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK12753ab3047  
 From: <sip:3033101@5.5.5.45>;tag=1808967241  
 To: <sip:3033101@5.5.5.226>  
 Call-ID: 1f227880-5851dfbe-4057-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Content-Length: 0

**[diagram]** Call-ID:[prev] [next]  
**[11]** SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1255bdbc716  
 From: <sip:5.5.5.45>;tag=2118413947  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: 1f227880-5851dfbe-4055-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Content-Length: 0

**[diagram]** Call-ID:[prev] [next]  
**[12]** SIP/2.0 200 OK  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1266a523f3f  
 From: <sip:3033100@5.5.5.45>;tag=1348227209  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: 1f227880-5851dfbe-4056-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Content-Length: 0



## 9.4 Message Waiting Indication Off at Registration

Title: Message Waiting Indication Off at Registration

Description:

Line 3033100 on phone F has voicemail configured with no messages currently waiting. Note this phone may have lines other than 3033100. However this scenario focuses on Line 3033100.

When phone F first registers line 3033100 (either when it's created or after a power cycles, for example) CCM will inform the phone of line 3033100's MWI state.

In this case, CCM will send a NOTIFY containing a "Messages-Waiting: no" body for Line 3033100.

Configuration:

Node = CCM, IP = 5.5.5.45

Phone = F, Line = 3033100, IP = 5.5.5.226, Model = SIP 7960

Scenario:

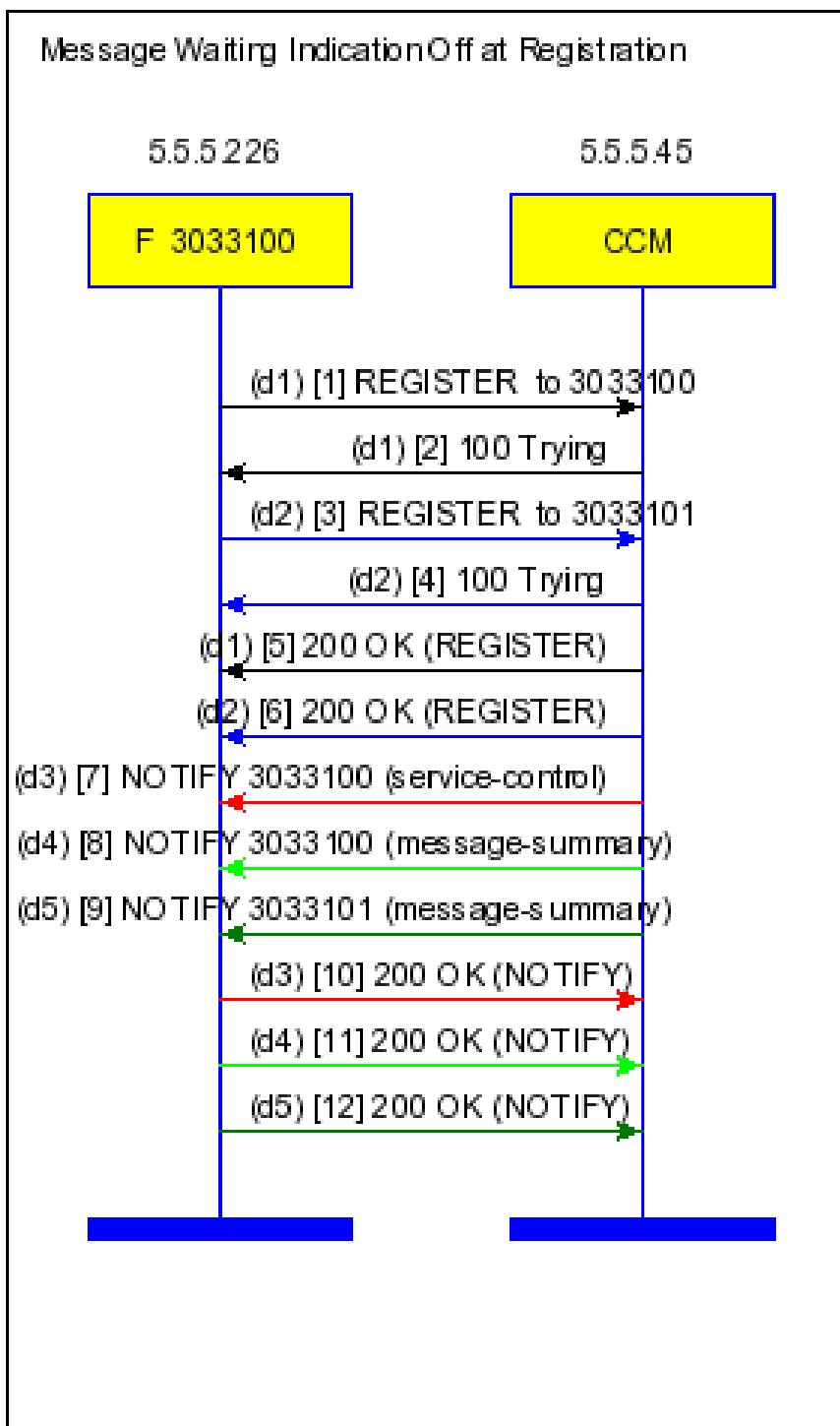
Phone F is powered on

Phone F gets NOTIFY with "Messages-Waiting: no"

(See Registration section for complete details)

Note:

The audio/telephone-event content type is binary. Currently, this content is not formatted into ASCII and displayed in the detailed messages. Instead, you will see "{binary content not shown}" in place of the actual binary content.



```
[diagram] Call-ID:[prev][next]
[1] REGISTER sip:titan-pub SIP/2.0
Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK6553eae2
From: <sip:3033100@titan-pub>;tag=000ab8f5aadf00026cd0b2e3-7f6cb1af
To: <sip:3033100@titan-pub>
Call-ID: 000ab8f5-aadf0003-6067ff24-7dca309b@5.5.226
Max-Forwards: 70
CSeq: 101 REGISTER
User-Agent: Cisco-CP7960G/8.0
Contact: <sip:3033100@5.5.226:5060;transport=udp>;+sip.instance=<urn:uuid:00000000-0000-0000-0000-0000-0000ab8f5aadf>;+u.sip!model.ccm.cisco.com="7"
Supported: replaces,join,norefsub,X-cisco-callinfo,X-cisco-service-control
Content-Length: 0
Expires: 3600

[diagram] Call-ID:[prev][next]
[2] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK6553eae2
From: <sip:3033100@titan-pub>;tag=000ab8f5aadf00026cd0b2e3-7f6cb1af
To: <sip:3033100@titan-pub>
Date: Mon, 18 Dec 2006 00:07:31 GMT
Call-ID: 000ab8f5-aadf0003-6067ff24-7dca309b@5.5.226
CSeq: 101 REGISTER
Content-Length: 0

[diagram] Call-ID:[prev][next]
[3] REGISTER sip:titan-pub SIP/2.0
Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK4de97657
From: <sip:3033101@titan-pub>;tag=000ab8f5aadf00034eb8f934-131c9c10
To: <sip:3033101@titan-pub>
Call-ID: 000ab8f5-aadf0004-6aefc9de-680b7834@5.5.226
Max-Forwards: 70
CSeq: 101 REGISTER
User-Agent: Cisco-CP7960G/8.0
Contact: <sip:3033101@5.5.226:5060;transport=udp>;+sip.instance=<urn:uuid:00000000-0000-0000-0000-0000ab8f5aadf>;+u.sip!model.ccm.cisco.com="7"
Supported: replaces,join,norefsub,X-cisco-callinfo,X-cisco-service-control
Content-Length: 0
Expires: 3600

[diagram] Call-ID:[prev][next]
[4] SIP/2.0 100 Trying
Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK4de97657
From: <sip:3033101@titan-pub>;tag=000ab8f5aadf00034eb8f934-131c9c10
To: <sip:3033101@titan-pub>
Date: Mon, 18 Dec 2006 00:07:31 GMT
Call-ID: 000ab8f5-aadf0004-6aefc9de-680b7834@5.5.226
CSeq: 101 REGISTER
Content-Length: 0

[diagram] Call-ID:[prev][next]
[5] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK6553eae2
From: <sip:3033100@titan-pub>;tag=000ab8f5aadf00026cd0b2e3-7f6cb1af
To: <sip:3033100@titan-pub>;tag=1821187588
Date: Mon, 18 Dec 2006 00:07:31 GMT
Call-ID: 000ab8f5-aadf0003-6067ff24-7dca309b@5.5.226
CSeq: 101 REGISTER
Expires: 180
Contact: <sip:3033100@5.5.226:5060;transport=udp>;+sip.instance=<urn:uuid:00000000-0000-0000-0000-0000ab8f5aadf>;+u.sip!model.ccm.cisco.com="7";x-cisco-newreg
Content-Length: 0

[diagram] Call-ID:[prev][next]
[6] SIP/2.0 200 OK
Via: SIP/2.0/UDP 5.5.226:5060;branch=z9hG4bK4de97657
From: <sip:3033101@titan-pub>;tag=000ab8f5aadf00034eb8f934-131c9c10
To: <sip:3033101@titan-pub>;tag=586583781
Date: Mon, 18 Dec 2006 00:07:31 GMT
Call-ID: 000ab8f5-aadf0004-6aefc9de-680b7834@5.5.226
CSeq: 101 REGISTER
Expires: 900
Contact: <sip:3033101@5.5.226:5060;transport=udp>;+sip.instance=<urn:uuid:00000000-0000-0000-0000-0000ab8f5aadf>;+u.sip!model.ccm.cisco.com="7"
Content-Length: 0

[diagram] Call-ID:[prev][next]
[7] NOTIFY sip:3033100@5.5.226:5060 SIP/2.0
Via: SIP/2.0/UDP 5.5.45:5060;branch=z9hG4bK116b8d6dcc
From: <sip:5.5.5.45>;tag=1838166027
```

To: <sip:3033100@5.5.5.226>  
 Call-ID: c05bff80-5851dbc4-4038-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 00:07:32 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: service-control  
 Subscription-State: active  
 Contact: <sip:5.5.5.45:5060>  
 Content-Type: text/plain  
 Content-Length: 226

action=check-version  
 RegisterCallId={000ab8f5-aadf0003-6067ff24-7dca309b@5.5.5.226}  
 ConfigVersionStamp={1165419698-0d652b9b-3364-4f84-aa61-0c4dc59b3245}  
 DialplanVersionStamp={1162847372-2753d185-6e60-4c10-9a06-6237961bef11}

**[diagram]** Call-ID:[prev][next]  
**[8] NOTIFY sip:3033100@5.5.5.226:5060;transport=udp SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1172fb8a27e  
 From: <sip:3033100@5.5.5.45>;tag=2096404198  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: c05bff80-5851dbc4-4039-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 00:07:32 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: message-summary  
 Subscription-State: active  
 Contact: <sip:3033100@5.5.5.45:5060>  
 Content-Type: application/simple-message-summary  
 Content-Length: 22

Messages-Waiting: no

**[diagram]** Call-ID:[prev][next]  
**[9] NOTIFY sip:3033101@5.5.5.226:5060;transport=udp SIP/2.0**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1183864d318  
 From: <sip:3033101@5.5.5.45>;tag=1069711781  
 To: <sip:3033101@5.5.5.226>  
 Call-ID: c05bff80-5851dbc4-403a-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Max-Forwards: 70  
 Date: Mon, 18 Dec 2006 00:07:32 GMT  
 User-Agent: Cisco-CCM5.1  
 Event: message-summary  
 Subscription-State: active  
 Contact: <sip:3033101@5.5.5.45:5060>  
 Content-Type: application/simple-message-summary  
 Content-Length: 22

Messages-Waiting: no

**[diagram]** Call-ID:[prev][next]  
**[10] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK116b8d6dcc  
 From: <sip:5.5.5.45>;tag=1838166027  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: c05bff80-5851dbc4-4038-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Content-Length: 0

**[diagram]** Call-ID:[prev][next]  
**[11] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1172fb8a27e  
 From: <sip:3033100@5.5.5.45>;tag=2096404198  
 To: <sip:3033100@5.5.5.226>  
 Call-ID: c05bff80-5851dbc4-4039-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Content-Length: 0

**[diagram]** Call-ID:[prev][next]  
**[12] SIP/2.0 200 OK**  
 Via: SIP/2.0/UDP 5.5.5.45:5060;branch=z9hG4bK1183864d318  
 From: <sip:3033101@5.5.5.45>;tag=1069711781  
 To: <sip:3033101@5.5.5.226>  
 Call-ID: c05bff80-5851dbc4-403a-2d050505@5.5.5.45  
 CSeq: 101 NOTIFY  
 Content-Length: 0

