Understanding Event Center Enrollment

Developer Technical Note

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Introduction

Integrating with Event Center's enrollment functionality is often viewed as a complicated procedure, due to the various options that a partner/customer has. There are several options in which this type of integration can be achieved and the direction that is taken will likely depend on the existing enrollment/registration model you have in place.

This document will cover the various integration strategies that WebEx recommends, and will hopefully head-off most of the common questions that are raised by developers.

Scheduling Overview

Scheduling is an important topic because in order to enroll attendees, you must specify what event to enroll them in. The event number is what is used to do this and is a required attribute for any enrollment API command. The enrollment number is dynamically generated at the time the event is scheduled.

There are three ways that an event can be scheduled:

- WebEx Page's Event Scheduler
- URL API
- XML API

The following section will cover each of these methods in detail, along with pointing out their pros & cons.

Scheduling Events using one of the APIs will allow for capturing the event number automatically. The event number is returned by the API upon successfully scheduling the meeting. This alleviates the need for manually capturing the event number, from the WebEx page, and entering it somewhere in your application.

Event Scheduler

Pros

- Scheduling an event using the WebEx Page requires no up-front development effort for scheduling.
- Works well if you do not plan on hosting numerous events.

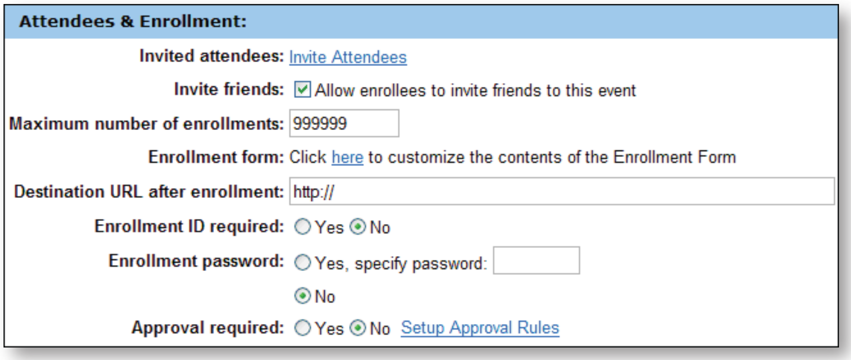
Cons

- This method requires the host to capture the event number and manually enter it somewhere in your system (for use in subsequent enrollment commands).
- Requires that your host/s follow exact scheduling process (for enrollment settings) or use a scheduling template.

How it works

This method is as simple as it gets. The host logs into the WebEx page and chooses to schedule an event from the left-hand menu. The host populates the scheduler form with all of his or her event information and then schedules the event. This section will not go into detail on all of the Event Center options. But it will explain the important enrollment settings that must be paid attention to.

The following figure shows the enrollment options that are presented to the host/user at the time of scheduling an event:



Attendees & Enrollment:

Invited attendees: Invite Attendees

Invite friends: ☑ Allow enrollees to invite friends to this event

Maximum number of enrollments: 999999

Enrollment form: Click here to customize the contents of the Enrollment Form

Destination URL after enrollment: http://

Enrollment ID required: ○ Yes ● No

Enrollment password: ○ Yes, specify password:

● No

Approval required: ○ Yes ● No Setup Approval Rules

Figure 1 – Enrollment Settings

Setting	Description
Invited attendees	Allows host to specify the attendees that are invited
Invite Friends	Allows attendees to invite their friends.
Max number of enrollments	
Enrollment form	
Destination URL	Allows the host to specify the landing page that attendees will be directed to at the end of the event.
Enrollment ID required	Forces the user to enter an enrollment ID at the time of joining an event.
Enrollment password	Requires the attendee to enter a password in order to enroll.
Approval required	If this is set to “yes” the host will have to manually approve each enrollment, unless the Approval Rules criteria are met.

The most important option displayed in the scheduler, with regards to enrollment, is “Approval required”. If this setting is set to “Yes”, without any “Approval Rules” set, the host will be required to manually approve each attendee.

If your goal is to bypass the manual approval process, we recommend two options:

- Set the option to “No”. All enrollment requests will be accepted automatically.
- Set the option to Yes, but create detailed “Approval Rules”. You might consider using Event Templates, which allow you to configure settings to be used when scheduling future events.

Scheduling with the URL API

Scheduling events using the URL API will allow you to capture the event number generated at schedule time. The event number is the unique identifier that represents the event itself; it must be used for all API commands that relate to that event.

URL API Basics

The URL API can be used over the HTTP POST/GET method and requires the use of a browser. It is divided into several PHP pages, depending on the action being performed. Login and other user related commands are handled by the "p.php" page, where Meeting/Training/Event Center commands are handled by the "m.php" page. The particular command being issued to these pages is designated by the "AT" argument. For example, the value of "AT" will be set to "LI" when issuing a login command. Please see the examples below to see how a typical URL API command is structured.

Login Command:

```
    https://[SiteName].webex.com/[SiteName]/p.php?AT=LI

        &WID=[Username]

        &PW=[Password]

        &MU=[URL To Be Redirected To Upon Successful Login]

        &BU=[URL To Be Redirected To Upon Failed Login]
```

Schedule Event Command:

```
    https://[SiteName].webex.com/[SiteName]/m.php?AT=SE

        &EN=[EventTitle]

        &JPW=[EventPassword]

        &MO=[Month]

        &DA=[Day]

        &YE=[Year]

        &HO=[Hour]

        &MI=[Minute]...
```

For additional information on basic URL API usage and required arguments for each command, please refer to the URL API Documentation located at http://developers.webex.com

URL API Scheduling Details

In order to schedule an event, one must be logged into WebEx with host account privileges. This is achieved by using the URL API's login command, shown above. Once login has been completed successfully, the Schedule Event command may be issued.

Please see the Schedule Event command, shown above. This example displays the most common arguments used. The three arguments that are explained below will supplement this command with enrollment related settings.

The following arguments pertain to enrollment when issuing the Schedule Event command:

CMD	Name	Description
&ENRE	Enrollment ID Required	Boolean flag (0/1) that determines whether or not the enrollment ID is required to join the event. The enrollment
&PW	Enrollment Password	The password required to enroll in an event.
&MX	Maximum Number of Enrollments	Allows you to limit the number of enrollments.

Scheduling with the XML API

The XML API is a proprietary web service, allowing integration into WebEx. It supports scheduling, user provisioning, billing data collection and more.

Much like the URL API, the main benefit of scheduling events using the XML API is the ability to capture the event number returned. This number will be required for any subsequent enrollment commands related to the event scheduled.

XML API Basics

The XML API documentation can be found at http://developers.webex.com. This document provides the schema layout for each command, along with instructions for posting to the web service URI. If you encounter difficulties communicating with the web service, please contact apidev@webex.com for support.

<securityContext>

Authentication is performed with each XML command sent to WebEx. The element that contains the authentication credentials is called the securityContext. The following elements must be provided:

Element	Description
webExID	The WebEx account issuing the command
password	The password for the WebEx account
siteID	Your WebEx site's unique identifier
partnerID	Partner ID for your WebEx site. This serves as another layer of security.

<bodyContent>

Each XML command sent to WebEx contains a bodyContent element. Each child element within bodyContent represents the arguments for the particular command you are sending. The command being sent is specified in an attribute called "xsi:type".

CreateEvent Command:

<bodyContent xsi:type="java:com.webex.service.binding.event.CreateEvent">

CreateMeetingAttendee Command:

<bodyContent
xsi:type="java:com.webex.service.binding.attendee.CreateMeetingAttendee">

XML API Scheduling Details

The command used to schedule an event is called “CreateEvent”. The <securityContext> element will need to contain the webExID and password for the host that is scheduling the event, along with the siteID and partnerID.

The event details will be supplied within the <bodyContext> element. The parent element containing enrollment settings is called <enrollment> and is a child of <bodyContext>. The child elements located under <enrollment> are described in the table below.

Element	Name	Description
idReq	Enrollment ID Required	Boolean (TRUE/FALSE). Determines whether attendees will be required to supply an enrollment ID to join the event. If passwordReq is set to TRUE, this value will automatically be switched to TRUE.
passwordReq	Enrollment Password Required	Boolean (TRUE/FALSE). Determines whether a password will be required to enroll in the event.
password	Enrollment Password	The password required to enroll in an event. Required if passwordReq is set to TRUE.
approvalReq	Approval Required	Boolean (TRUE/FALSE). If se to FALSE, all enrollments will automatically be approved. If set to TRUE, approval rules will be used or the host will have to manually approve enrollment requests.
approvalRules	Rules for approval	Contains several child elements that are used to set automatic approval rules. Multiple rules can be added.

For additional event related settings, please see the XML API documentation.

API Enrollment

Both the URL and XML APIs can be used to issue back-end enrollment commands. Which one is used depends on your application's environment or developer resources/expertise.

The advantage of using the URL API is that it is very simple to use, for even the novice developer. The disadvantage to the URL API is that it is only supported with the use of a browser.

The XML API is slightly more complex but is far more secure and allows developers to integrate into WebEx using any type of client or platform.

URL API Enrollment

As explained in URL API Basics, Event Center related commands are sent to the "m.php", page and the "AT" argument is used to specify the particular command being sent, which will be set as "EN". The command can be sent via the POST or GET method.

The following is an example of the enrollment command sent via the GET method, with all **required** arguments.

https://[SiteName].webex.com/[SiteName]/m.php?AT=EN

&MK=[EventNumber]

&AE=[AttendeeEmail]

&FN=[FirstName]

&LN=[LastName]

To view the list of additional arguments that can be used with the command, please see the URL API documentation available at http://developers.webex.com.

XML API Enrollment

The XML command used to perform enrollment is called "CreateMeetingAttendee". This generic command, from the attendee service, provides registration/enrollment functionality for all of the services listed below:

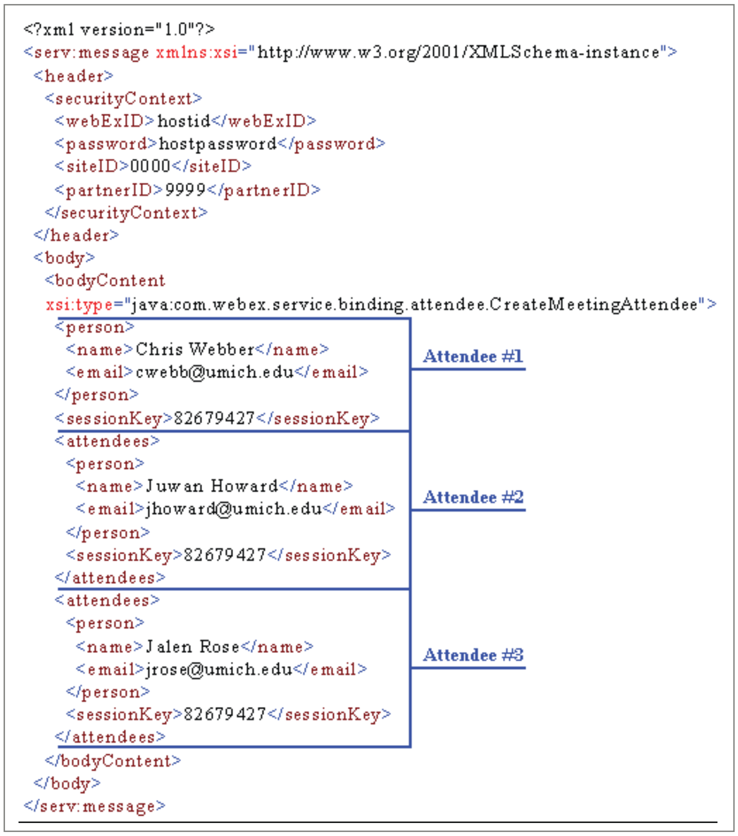
- Meeting Center
- Training Center
- Event Center
- Sales Center

<securityContext>
The securityContext element, containing authentication credentials, must specify the event host's username and password in order for the command to be successful.

<bodyContent>
It is recommended that you review the XML API documentation in order to review the latest schema available.

There is one important thing to note about this command regarding enrolling mutilple attendees. The elements containing the information for the first attendee must be placed directly within the <bodyContent> element. All subsequent attendees must be enclosed within their own <attendees> element.

Example:



```
<?xml version="1.0"?>
<serv:message xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <header>
  <securityContext>
   <webExID>hostid</webExID>
   <password>hostpassword</password>
   <siteID>0000</siteID>
   <partnerID>9999</partnerID>
  </securityContext>
 </header>
 <body>
  <bodyContent
  xsi:type="java:com.webex.service.binding.attendee.CreateMeetingAttendee">
   <person>
    <name>Chris Webber</name>
    <email>cwebb@umich.edu</email>
   </person>
   <sessionKey>82679427</sessionKey>
   <attendees>
    <person>
     <name>Juwan Howard</name>
     <email>jhoward@umich.edu</email>
    </person>
    <sessionKey>82679427</sessionKey>
   </attendees>
   <attendees>
    <person>
     <name>Jalen Rose</name>
     <email>jrose@umich.edu</email>
    </person>
    <sessionKey>82679427</sessionKey>
   </attendees>
  </bodyContent>
 </body>
</serv:message>
```

Figure 2 – CreateMeetingAttendee Example

Integration Strategies

This section covers the common methods that are used to integrate into Event Center. The method you choose will largely depend on whether you are starting from scratch or leveraging an existing registration model.

Gate Keeper Enrollment

This integration strategy is by far the simplest to implement and is ideal if your company already has an enrollment model in place.

The main idea behind this concept is that your application captures the enrollment information that you require and handles sending out confirmation emails. Thus far, your application is controlling the entire user experience. When it is time for the user to join the event, they are directed to a join page, located in your application, which essentially uses the WebEx URL API to launch the attendee directly into his or her event.

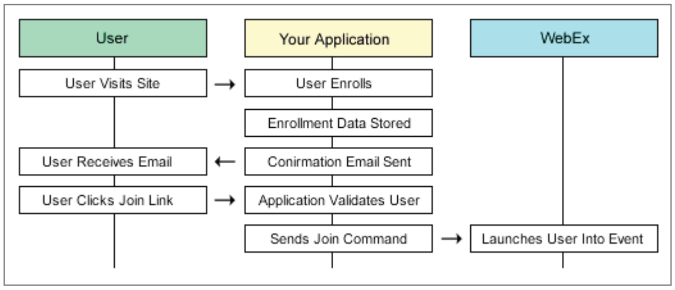


Figure 3 – Typical flow for Gate Keeper Enrollment

The flow above assumes that the user would be joining via a link provided in the email confirmation. You can also provide entry via a page in your application.

Preventing Unauthorized Attendees

If all your attendees will be joining via your page, they will never have to know the event password stored on the WebEx side. This is the single piece of information that makes your application the “Gate Keeper”.

This gives you greater control over how you authenticate your attendees. You may already manage user accounts and this model will allow you to leverage your existing authentication policies.

To prevent savvy users from going directly to the WebEx site to join, you have the option of making the event “unlisted”.

Basic Enrollment Integration

A loose integration typically only uses the WebEx API for enrollment functionality. This means that scheduling is typically done on the WebEx page (see Event Scheduler).

Capturing the Event Number

Once the event is scheduled, the next step is to determine how your application is to capture the Event Number; this value will be required in order to successfully enroll the attendee in the event (refer to Enrollment Command Options). There are a couple of ways that the Event Number can be captured by your application.

Manual Capture

After the host schedules the event, he or she will have to navigate somewhere in your application to manually add the event information to your system. It is up to you what information you require the host to add, such as event title, time and duration, but the event number will be required in order to send an enrollment command to the WebEx API. Also, keep in mind that if you specify an enrollment password you will need to store this value as well.

Automatic Capture

The XML API's LstsummarySession command will allow you to list all events that are scheduled on the site. There are various search constraints that you may provide, such as date range, WebExID (host account username) and service type.

Using the LstsummarySession command will allow your application to display the scheduled events that are available for registration. Each event that is returned in the XML response will be structured as follows:

```
<ep:session>
  <ep:sessionKey>10353484</ep:sessionKey>
  <ep:confName>Test Event</ep:confName>
  <ep:sessionType>9</ep:sessionType>
  <ep:serviceType>EventCenter</ep:serviceType>
  <ep:hostWebExID>tu</ep:hostWebExID>
  <ep:otherHostWebExID>tu</ep:otherHostWebExID>
  <ep:timeZoneID>4</ep:timeZoneID>
  <ep:timeZone>GMT-08:00, Pacific (San Jose)</ep:timeZone>
  <ep:status>NOT_INPROGRESS</ep:status>
  <ep:startTime>09/12/2006 19:45:00</ep:startTime>
  <ep:duration>60</ep:duration>
  <ep:listStatus>PUBLIC</ep:listStatus>
  <ep:hostEmail>tester@webex.com</ep:hostEmail>
  <ep:passwordReq>true</ep:passwordReq>
  <ep:hostJoined>false</ep:hostJoined>
  <ep:participantsJoined>false</ep:participantsJoined>
</ep:session>
```

Notice that one of the elements returned is called "passwordReq". This element indicates that a password will be required in order to join the event. This password is typically provided to the user in the enrollment confirmation email.

Note: If you plan on using this method for listing events in your application, you might not want to use enrollment passwords. It is possible to use this feature if you are willing to issue an additional XML API command to retrieve the password; that command is called GetEvent and will return all of the event details. Please see the XML API documentation for details on this command's requirements.

Performing Enrollment

Now that your application has the ability to store the event numbers, enrollment commands can be performed. Attendees can visit your site to view the list of available events and enroll for the ones they choose.

The URL API is typically used to perform the enrollment on the WebEx side. Provided that your event is scheduled to automatically approve enrollees, a confirmation email will be sent to the user.

Preventing Unauthorized Attendees

This integration model allows you the ability to use enrollment ID numbers, which add a degree of certainty that all attendees in the meeting have enrolled. If the meeting is scheduled to require enrollment IDs for joining, the URL API command used to launch attendees into the event (m.php?AT=JE) will need to include the enrollment ID argument (&EI).

Since enrollment capabilities are available on the WebEx page, you will probably want to schedule events as unlisted, so they are only available for use via the APIs.

Tight Integration

A tight integration is one where your application acts as a “front-end” to the WebEx site. The WebEx APIs are used to communicate with WebEx to schedule and enroll attendees.

This type of integration will likely involve many details and variations that will require consultation with the API Developer Services Team.

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