Using
ADOBE® CONNECT™ 8
Web Services
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Chapter 1: Before you begin

Adobe® Connect® exposes web services that clients can call to exchange data with Adobe Connect accounts. You can use web services with Adobe Connect hosted accounts and with accounts on Adobe Connect licensed servers.

This guide explains how an application calls Adobe Connect web services and interprets the XML response. It is intended for developers who want to build custom applications for Adobe Connect or integrate it with another system such as a learning management system or LDAP directory service.

Before you use this guide, you should understand the basics of XML and of using HTTP to communicate with a server from a client application. This guide includes some Java™ code samples, but it does not presume that you are using one specific language or environment.

Development environment

Adobe Connect Web Services allows you to use any language or platform that can send and receive XML over HTTP to develop custom applications. For example, you can use Java and the J2EE platform, C#.NET, PHP, a portal server, or any web development platform. Most custom applications are web applications or portals.

In general, you may find these types of tools useful:

- An XML parser code library, if your programming language supports XML parsing.
- A cookie management code library, to help you manage the session cookies Adobe Connect returns.
- A tool for viewing HTTP request and response headers in a browser. Many such tools are available on the Internet.

Additional resources

You can find many useful resources on the Internet that provide information about Adobe Connect, web services and XML, and other technologies that Adobe Connect uses.

Adobe Connect

Adobe Connect User Community The Adobe Connect User Community at connectusers.com is the hub of the Adobe Connect community. This site has forums, tutorials, events, announcements, a partner showcase and much more.

Adobe Connect Help Support Center The Adobe Connect Help and Support Center contains the Adobe Connect documentation and Support contact information.

XML and web services

The Web Services Primer at the Xml.com website (xml.com) is a good introduction to web services.

The XML Tutorial at the W3Schools website (w3schools.com) can help you get started with XML.

The XPath Tutorial also at the W3Schools website (w3schools.com), describes XPath, which parses an XML document so that you can use it in an application.
The XSLT Tutorial, a third tutorial at the W3Schools website (w3schools.com), teaches you XSL Transformations, which you use to convert XML data to other formats.

The XSL Transformations (XSLT) specification at the W3C website (w3.org) is the official definition of XSLT, from the standards committee who created it.

Numeric Representation of Dates and Time, at the International Organization for Standardization website (iso.org), provides information about how to use the ISO 8601 standard date and time format.

Date and Time Formats at the W3C website (w3.org) is the official definition of the ISO 8601 date and time format.

Other technologies

Flash Player Developer Center and Flash Media Server Developer Center, both available from the Adobe Developer Center, offer articles, samples, and insights to developing applications that use Adobe Flash Player and Adobe Flash Media Server.

SCORM Concepts, at the Eduworks Corporation website (eduworks.com), is a tutorial about the Shareable Content Object Reference Model and describes Shareable Content Objects (SCOs) and Learning Management Systems (LMSs).

An LDAP Roadmap at the Kings Mountain Systems website (www.kingsmountain.com), provides a useful overview of the Lightweight Directory Access Protocol (LDAP). This site might provide good background material or links for developers integrating an LDAP directory with Adobe Connect.

Microsoft SQL Server Adobe Connect uses a Microsoft SQL Server database, which your custom applications retrieve data from and write data to. You may find useful resources at the Microsoft SQL Server Developer Center (msdn.microsoft.com) including references, community, support, and other information.

Conventions

This guide uses industry standard conventions for displaying code that you are already familiar with. However, API reference is a formal definition of the API contract between a calling application and the server. As such, the syntax definitions of request URLs should be described.

We have placed distinct sections of a request URL on separate lines for readability, like this:

http://server_name/api/xml
  ?action=custom-fields
  &filter-definition=value
  &session=BreezeSessionCookieValue

When you enter a request URL in the address bar of a browser or construct it in an application, enter it or construct it as a single line:

https://example.com/api/xml?action=custom-fields&filter-name=location

Syntax elements in blue code font represent definitions that you construct, with a hyperlink to the syntax of the definition.
Chapter 2: Architecture

Adobe® Connect™ Web Services is the web service layer over the Adobe Connect Server suite of applications.

Web services allow you to build portals or web applications that integrate Adobe Connect functionality and reporting information with third-party systems such as portals, customer relationship management systems, and enterprise resource planning systems.

Adobe Connect Web Services provides meeting, training, and events functionality to your applications through its XML API.

As an example, you might have a central user management system, such as an LDAP directory, Microsoft Active Directory, or another third-party system, that is an integral part of your business processes.

Using web services, you can write an application that synchronizes users between your system and Adobe Connect. The application can use the J2EE platform or another technology of your choice to pull a list of users from the directory, compare it against a list of Adobe Connect users, and then perform requested updates within the Adobe Connect user repository, such as adding or deleting users or groups.

Data flow

The data flows between client applications and Adobe Connect are shown in the following diagram. Custom applications that you write use paths 1 to 2 and A to B. Adobe Connect applications (such as Adobe Connect Meeting, Adobe Connect Training, or Adobe Connect Events) can use any of the data flow paths.
The data flow between Adobe Connect and client applications

The data flow can be encrypted with SSL or unencrypted.

**Unencrypted** If the data flow is unencrypted, connections are made over HTTP and Adobe Real Time Messaging Protocol (RTMP) and follow the paths described in the following table.

<table>
<thead>
<tr>
<th>Diagram number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The client web browser requests an Adobe Connect meeting or content URL over port HTTP:80 (connection paths may vary).</td>
</tr>
<tr>
<td>2</td>
<td>The web server responds with content transfer or provides the client browser with information to enter Adobe Connect.</td>
</tr>
<tr>
<td>3</td>
<td>Adobe Flash® Player requests a connection to Adobe Flash Media Server over RTMP:1935 and HTTP:80.</td>
</tr>
<tr>
<td>4</td>
<td>Flash Media Server responds, and a persistent connection is opened to stream meeting traffic to the browser.</td>
</tr>
<tr>
<td>3a (alternate)</td>
<td>In some cases, Flash Player requests a connection to the Flash Media Server, but can only obtain a tunneled connection over RTMPT:80.</td>
</tr>
<tr>
<td>4a (alternate)</td>
<td>Flash Media Server responds, and a tunneled connection is opened to stream meeting traffic to the browser.</td>
</tr>
</tbody>
</table>

**Encrypted** If the data flow is encrypted, connections are made securely over HTTPS and RTMPS (Real Time Messaging Protocol over SSL), as follows.

<table>
<thead>
<tr>
<th>Diagram number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The client web browser requests a secure meeting or content URL over an encrypted connection on HTTPS:443 (connection paths may vary).</td>
</tr>
<tr>
<td>B</td>
<td>The web/application server responds with an encrypted content transfer or provides the client with information to make an encrypted connection to Adobe Connect.</td>
</tr>
<tr>
<td>C</td>
<td>Flash Player requests an encrypted connection to Flash Media Server over RTMPS:443.</td>
</tr>
<tr>
<td>D</td>
<td>Flash Media Server responds, and a persistent connection is opened to stream meeting traffic to the browser.</td>
</tr>
</tbody>
</table>
Custom applications
Adobe Connect Web Services provides an XML API, so your application must be able to communicate with Adobe Connect using XML over HTTP or XML over HTTPS. Your application calls the API by building a request URL and passing it one or more parameters, either as name/value pairs or as an XML document. Web Services returns an XML response, from which you can extract values.

Custom applications retrieve metadata from the Adobe Connect database. Metadata includes meeting or course names and times, meeting room URLs, content URLs, and report information.

The data flow for a custom application retrieving metadata from the database is from a client web browser, to the client web application server, to the XML API, the Adobe Connect web application server, and the SQL database—and then back again.

The data flow between a custom application and Adobe Connect works like this:
1. A user accesses your custom application from a web browser.
2. The application calls the XML API over HTTP:80 or HTTPS:443.
3. The Adobe Connect web application server authorizes the application and its users, retrieves metadata from the SQL database, and returns the metadata.
4. On the client side, your web or application server, XML parser, and software libraries handle the response and return it to your application.
5. The user continues to work in your custom application, and clicks a meeting or content URL. At this point, the user accesses a Adobe Connect application to enter a meeting room, and the typical data flow between a Adobe Connect application and the server begins.

Adobe Connect applications
Adobe Connect applications call the server using the same Web Services XML API that you use from a custom application.

In general, content is transported over HTTP port 80 or HTTPS port 443. Content includes slides, HTTP pages, SWF files, and files transferred through the FileShare pod. These are default port numbers that you can configure (see Migrating, Installing, and Configuring Adobe Connect Server for details).

Streamed, real-time communications from Flash Media Server are transported over RTMP port 1935. Streamed communications include audio, video (webcam and FLV), file share, and chat. Meeting state is also maintained over RTMP port 1935.

Components of Adobe Connect
Adobe Connect is architected with two server components, and each server uses a SQL database.

The web application server
The web application server is the brains of Adobe Connect. It contains and executes all of the business logic needed to deliver content to users. It handles access control, security, quotas, and licensing, as well as management functions such as clustering, failover, and replication.

The web application server also handles Adobe Connect Central, the application through which you view and manage your organization’s content and users—when you are not using a custom application or integrated third-party system. The metadata describing content and users can be stored in either single or multiple replicated SQL databases. The web application server is stateless, which means that scaling is near linear.
Flash Media Server  Flash Media Server is the muscle of Adobe Connect. Flash Media Server streams audio, video, and rich media content using RTMP. When a meeting is recorded and played back, audio and video are synchronized, or content is converted and packaged for real-time screen sharing, Flash Media Server does the job.

Flash Media Server also plays a vital role in reducing server load by caching frequently accessed web pages, streams, and shared data.

The SQL database  Adobe Connect uses the Microsoft SQL Server database for persistent storage of transactional and application metadata, including users, groups, content, and reporting information. The XML API retrieves metadata stored in the database. The database can be implemented with either the Microsoft SQL Server Desktop Engine (MSDE) or the full version of Microsoft SQL Server 2005.

Making your first API call

Adobe Connect Web Services uses a servlet framework to handle XML API requests. In the data flow diagram, the servlet framework is represented by the API component. The API servlet receives XML requests from clients and returns XML responses from the web application server and the database.

A request to the XML API is formatted as an HTTP request URL that the API servlet handles. A request URL has an action name and parameters in name/value pairs, like this:

https://example.com/api/xml?action=sco-info&sco-id=2006334909

If you have access to a Adobe Connect account in which you can test API calls, you can experiment. In fact, Adobe recommends testing API calls in the browser while you learn the API and write applications.

Before you begin, it’s useful to install a tool that allows you to view HTTP request and response headers in your browser.

Call common-info in a browser

1  (Optional) Enable a tool for viewing HTTP headers in your browser.

2  Open a browser and navigate to your Adobe Connect login page.

3  Without logging in, delete the part of the URL after the domain name and add a call to common-info:

   https://example.com/api/xml?action=common-info

   The response from common-info gives you information about your session with the server, especially the cookie that identifies your session:
When you log a user in from an application, you need to send the cookie value back to the server to identify the user’s session (see Log in from an application).

**Call principal-list in a browser**

Once you have the BREEZESESSION cookie value from common-info, the browser adds it to the request header on your next request.

1. In a web browser, log in to Adobe Connect. Change the browser URL to call principal-list:
   
   https://example.com/api/xml?action=principal-list

2. Check the request header. This time it sends the BREEZESESSION cookie value back to the server:

   GET /api/xml?action=principal-list HTTP/1.1
   Accept: */*
   Accept-Language: en-us
   Accept-Encoding: gzip, deflate
   User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET CLR 1.1.4322)
   Host: example.com
   Connection: Keep-Alive
   Cookie: BREEZESESSION=breezbryf9ur23mbokzs8

3. Check the response, which lists all principals on the server, each in its own principal element.
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <principal-list>
    <principal principal-id="624526" account-id="624520" type="user"
      has-children="false" is-primary="false" is-hidden="false">
      <name>joe harrison</name>
      <login>jharrison@example.com</login>
      <email>jharrison@example.com</email>
    </principal>
    <principal principal-id="624550" account-id="624520" type="user"
      has-children="false" is-primary="false" is-hidden="false">
      <name>bob jones</name>
      <login>bjones@example.com</login>
      <email>bjones@example.com</email>
    </principal>
    ...
  </principal-list>
</results>

Add filters and sorts

Many actions in the API allow you to add a filter to return only certain response elements or a sort to display response elements in a certain order.

A filter is a special parameter that starts with the keyword filter, followed by an optional modifier, then a field name and a value. These are all examples of filters:

- `filter-name=jazz doe` (which matches results with the exact name jazz doe)
- `filter-like-name=jazz` (which matches any results that contain jazz in the name)
- `filter-out-type=user` (which returns any results that do not have a type of user)

These are just a few filter types, and you can find more in filter-definition. Check an action in the reference (at “Action reference” on page 58) to see whether its response can be filtered. In general, if an action allows filters, you can use them on any response element or attribute.

A sort is another special parameter that starts with the keyword sort (or sort1 or sort2), followed by a field name and then one of the keywords asc or desc, for example:

- `sort-name=asc` (to sort in ascending order by name)
- `sort-group-id=desc` (to sort in descending order by group-id)

These are just a few sort examples. You can test sorts in the browser or see sort-definition for more.

Make a call with a filter and sort

1 Call principal-list again, displaying only groups and sorting them alphabetically by name:

   https://example.com/api/xml?action=principal-list&filter-type=group
   &sort-name=asc

2 To tighten the response, choose a group from the list and filter on its name:

   https://example.com/api/xml?action=principal-list&filter-name=developers

This time, only one group is returned:
<xml version="1.0" encoding="utf-8"/>
<results>
  <status code="ok"/>
  <principal-list>
    <principal principal-id="2007105030" account-id="624520"
      type="group" has-children="true" is-primary="false"
      is-hidden="false">
      <name>developers</name>
      <login>developers</login>
    </principal>
  </principal-list>
</results>

Where to go from here
At this point, you can continue to test calls in the browser and observe how they work. It’s the best and easiest way to
learn the XML API. When you need more information, turn to any of these sources:

- The API reference in “Action reference” on page 58
- “Login and requests” on page 10 for information on how to log users in from applications
- “Basics” on page 18 to learn the three basic concepts underlying the API
- “Meetings” on page 30 if you want to create and manage meetings from an application
- “Training” on page 47 if you are building a training application
Chapter 3: Login and requests

This chapter explains how to log a user in from your application, make requests, handle responses, and log the user out.

There are several ways to accomplish most of these tasks, depending on your development environment, server configuration, and application design.

Log in from an application

Any custom application you write that uses Adobe® Connect™ Web Services functionality or integrates with a third-party system needs to log in a user to Adobe Connect. In its simplest form, the process of logging in calls the login action.

However, the technique for logging in varies according to whether you use cookie management, have a licensed server or a hosted account, and authenticate directly to Adobe Connect or use external authentication. Depending on your environment and server configuration, you might also use combinations of these options.

Cookie management  When a user logs in, Adobe Connect returns a cookie that identifies the user’s session. You need to pass the cookie back to the server on all calls made to the server during the user’s session. Then, when the user logs out, the server makes the cookie expire and you should invalidate it.

In your development environment, you can use a code library that manages cookies for you. The process of logging in and managing a user’s session varies according to whether you use a cookie management library or manage the user’s session yourself.

Licensed server or hosted account  Your organization might have a licensed Adobe Connect server within your firewall, or you may have an Adobe Connect hosted account at Adobe. Either way, you send XML requests over HTTP or HTTPS, but security requirements and the login process vary. If you are a hosted customer, you can use certain parameters with the login action to avoid sending user IDs and passwords over the Internet.

Direct or external authentication  Whether you are a hosted or licensed customer, your application might authenticate directly to Adobe Connect, or you might authenticate users on your own network, set an identifier in an HTTP request header, and send it to Adobe Connect. The login process varies according to whether you use direct or external authentication.

Log in to Adobe Connect server

The standard technique for logging a user in to Adobe Connect server uses the login action, passing the user’s login ID and password. This technique works with both HTTP GET and POST requests.

You also need to manage the BREESESESSION cookie the server returns for each user session. If you use a client-side cookie management library, it is much easier to allow it to manage cookies for you than to manage the cookies yourself. If you do not have such a library, call login with the session parameter, as it is easier and more reliable than setting HTTP header values.

Note: If you send user passwords to Adobe Connect server, use SSL so passwords are encrypted in transit, even if you have a licensed Adobe Connect server within your own firewall.

Log in with cookie management

1  Call the login action, passing it the user’s login ID and password, but no session parameter:
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http://example.com/api/xml?action=login&login=bobs@acme.com
    &password=football

2 Parse the response for a status code of ok.

If the login is successful, the server returns the BREEZESESSION cookie in the response header:

    Set-Cookie: BREEZESESSION=breezbryf9ur23mbokzs8;domain=.macromedia.com;path=/

3 Allow your cookie management library to manage the BREEZESESSION cookie.

Your client-side library passes the cookie back to the server in a request header on subsequent calls for the
remainder of the user’s session. You do not need to set the cookie in the request header explicitly. When the user
logs out, the cookie expires.

Log in using the session parameter

1 Before you log the user in, call common-info to get the value of the BREEZESESSION cookie:

    http://example.com/api/xml?action=common-info

2 Extract the cookie value from the response:

    <cookie>breezxq66rt43poai3if8</cookie>

3 Log the user in, specifying the cookie value:

    http://example.com/api/xml?action=login&login=bobs@acme.com
        &password=football&session=breezxq66rt43poai3if8

4 Parse the response for a status code of ok.

5 Use the session parameter with the same cookie value on subsequent calls for the user, until the user’s session ends:

    https://example.com/api/xml?action=principal-list
        &session=breezxq66rt43poai3if8

6 When the user logs out or the user’s session ends, do not reuse the cookie value.

Log in to a Adobe Connect hosted account

If you want to log in directly to an Adobe Connect hosted account or multiple hosted accounts, you still use the login
action, but you need to specify an account ID or domain name, in addition to the user’s login ID and password. You
can specify a domain name if you want to avoid sending an account ID over the Internet.

With an Adobe Connect hosted account, you cannot use single sign-on or external authentication. You must pass the
user’s authentication credentials on the Adobe Connect hosted account, not the credentials for an external network.

Note: It is important to have SSL enabled on your Adobe Connect hosted account, because you are sending user IDs,
passwords, and account information over the Internet to your Adobe Connect account hosted at Adobe.

Log in to an Adobe Connect hosted account with an account ID

1 Before you log the user in, call common-info with the domain name of your Adobe Connect hosted account in
    either the request URL or the domain parameter:

    http://acme.adobe.com/api/xml?action=common-info
    http://adobe.com/api/xml?action=common-info
        &domain=acme.adobe.com

2 Parse the response for the values of cookie and account-id:

    <cookie>Sbreezzd2dfr2ua5gscogv</cookie>
    ...
    <account account-id="295153" />

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3 Collect the user's login ID and password in your application.

4 Call the login action, adding the user's credentials and the account-id and session parameters:
   https://example.com/api/xml?action=login&login=joy@acme.com
   &password=happy&account-id=295153&session=Sbreezzd2df2ua5gscogv

5 Parse the response for a status code of ok.

6 (Optional) If you prefer, you can call login before common-info, extract the cookie value from the response header, and manage it yourself or using a cookie management library.

Log in to an Adobe Connect hosted account with a domain name

1 Before you log the user in, call common-info with the domain name of your Adobe Connect hosted account in either the request URL or the domain parameter:
   http://acme.adobe.com/api/xml?action=common-info
   http://adobe.com/api/xml?action=common-info&domain=acme.adobe.com

2 Parse the response for the values of cookie and host:
   <cookie>breezxq66rt43poai3if8</cookie>
   ...
   <host>https://acme.adobe.com</host>

3 Extract the domain name from the value of host:
   acme.adobe.com

4 In your application, collect the user's login ID and password.
   Be sure the login ID is the user's Adobe Connect hosted account login ID, not an external one.

5 Call login, adding the user's credentials and the domain and session parameters:
   https://example.com/api/xml?action=login&login=joe
   &password=smith99&domain=acme.adobe.com&session=breezxq66rt43poai3if8

   The domain is equivalent to the account-id, but by using it you can avoid sending an account ID over the Internet, especially if you use a non-encrypted connection.

6 Parse the response for a status code of ok.

7 (Optional) If you prefer, you can call login before common-info, extract the cookie value from the response header, and manage it yourself or using a cookie management code library.

Log in using HTTP header authentication

Note: The instructions in this section apply only to Adobe Connect server.

Your application can use a trusted central server to authenticate users with single sign-on and pass your network’s (here called external) authentication to Adobe Connect server, without explicitly passing an Adobe Connect server user ID and password. (For detailed instructions on how to set up and configure HTTP header authentication, see Adobe Connect Installation and Configuration Guide).

With HTTP header authentication, a user logs in to your authentication server. Once the user is authenticated, you add an HTTP request header that identifies the user, or configure a proxy server to add the header. The authentication filter on Adobe Connect (named HeaderAuthenticationFilter) converts your user identifier to an Adobe Connect login ID and authenticates the user.
External authentication works in addition to standard Adobe Connect authentication. Each user who needs to access Adobe Connect server needs a valid Adobe Connect server login and password.

When you send a login request to Adobe Connect server with an external authentication credential:

- The authentication filter intercepts the request and checks for a user on Adobe Connect server with an `ext-login` field that matches your external credential.
- If a match exists, the filter passes your external authentication to Adobe Connect server, and the server logs the user in.
- If no match exists, the filter passes the login request to the server, which displays its login page. The user must then log in to Adobe Connect server.
- If the user logs in successfully, Adobe Connect server updates the `ext-login` field in the user's profile with the external credential from your request. The next time you send a request with the user's external credential, Adobe Connect server finds a match in `ext-login`, and the user does not need to log in to Adobe Connect.
- If the user does not log in successfully, the user is not allowed access to Adobe Connect server applications, content, or meetings.

The steps that follow describe how to call `login` when you use HTTP header authentication.

**Log in to Adobe Connect server using HTTP header authentication**

1. Configure your network servers and Adobe Connect server for HTTP header authentication using the instructions in *Adobe Connect Installation and Configuration Guide*.

2. In `{your server directory}/appserv/conf/WEB-INF/web.xml`, remove comment tags around the `filter-mapping` element for `HeaderAuthenticationFilter` and add comment tags around any other `filter-mapping` elements:

   ```xml
   <filter-mapping>
     <filter-name>HeaderAuthenticationFilter</filter-name>
     <url-pattern>/*</url-pattern>
   </filter-mapping>
   <!--
   <filter-mapping>
     <filter-name>NtlmAuthenticationFilter</filter-name>
     <url-pattern>/*</url-pattern>
   </filter-mapping>
   -->
   
3. In the `filter` element for `HeaderAuthenticationFilter`, enable the `/api/` pattern for request URLs. You have two choices for how to do this:

   **If your application uses the XML API and any Adobe Connect applications** In the `filter` element for `HeaderAuthenticationFilter`, use comment tags to disable the `init-param` element with a `param-value` of `/api/`:

   ```xml
   <!--
   <filter>
     <filter-name>HeaderAuthenticationFilter</filter-name>
     <init-param>
       <param-name>auth.headers</param-name>
       <param-value>/api/</param-value>
     </init-param>
   </filter>
   -->
   ```
If your application uses only the XML API  Change the filter-mapping element for your filter type to use the URL pattern /api/* instead of /*:

```xml
<filter-mapping>
  <filter-name>HeaderAuthenticationFilter</filter-name>
  <url-pattern>/api/*</url-pattern>
</filter-mapping>
```

Then, in the filter element for your filter type, add comment tags around all init-param elements with a param-name of ignore-pattern-x:

```xml
<filter>
  <filter-name>HeaderAuthenticationFilter</filter-name>
  <filter-class>
    com.macromedia.airspeed.servlet.filter.HeaderAuthenticationFilter
  </filter-class>
  <!--
    <init-param>
      <param-name>ignore-pattern-0</param-name>
      <param-value>/api/</param-value>
    </init-param>
    ...
    <init-param>
      <param-name>ignore-pattern-4</param-name>
      <param-value>/servlet/testbuilder</param-value>
    </init-param>
  -->
</filter>
```

4 Configure Adobe Connect server so that users are created with the field ext-login set to the external user ID you send (see Adobe Connect Installation and Configuration Guide for details).

By default, ext-login has the same value as login, the Adobe Connect server login ID.

5 Once your system authenticates the user, create a login request. Add the parameter external-auth=use, but no login or password parameters:

```xml
https://example.com/api/xml?action=login&external-auth=use
```

6 Add your authenticated user ID to the HTTP request header. By default, use the header name x-user-id:

```xml
x-user-id: joesmith
```

You can specify a different header name by setting a value for HTTP_AUTH_HEADER in the custom.ini file. You can also configure a proxy server to set the HTTP header value. See Adobe Connect Installation and Configuration Guide for details of either.

7 Parse the response for a status code of ok.

8 Handle the BREEZESESSION cookie value returned in the response header. You have two choices for how to do this:

   If you use a client library that manages cookies  Allow your library to extract the cookie value, store it, and pass it back to the server on subsequent requests for the user.
If you manage cookies yourself Extract the value of the BREEZESESSION cookie from the response header. Store it and pass it back to the server in the session parameter of all subsequent actions you call for the same user, as long as the user’s session is valid:

https://example.com/api/xml?action=principal=list&session=breezs7zuepmy9wh2tseu

Be sure not to reuse the cookie value when the user’s session ends.

Send a request in an XML document

At times, you may prefer to send an HTTP POST request to the server to make sure the data is secure and not visible in transit. In that case, specify the action name and parameters in an XML document.

Make an XML document request

1 Create an XML document with the root element params and param child elements for the action name and each parameter:

```xml
<params>
  <param name="action">login</param>
  <param name="login">jon@doe.com</param>
  <param name="password">foobar</param>
</params>
```

You can only send one action in the params root element. You cannot batch multiple actions to be executed sequentially.

The XML document you send must be valid and well-formed. Try validating the document in an XML editor before you send it.

2 Write code that sends an HTTP POST request to Adobe Connect and receives an XML response.

The specific code will vary according to your programming language and development environment.

3 In your code, send the XML document to Adobe Connect in the body of the HTTP POST request.

   • Read the XML document into the request.
   • Be sure to set a content-type header of text/xml or application/xml.

Parse a response with XPath

When you receive an XML response from Adobe Connect, you need to be able to parse it to extract the XML elements you need.

If you are working in a language such as Java™, with an XML parser (such as Xerces or JDOM) installed, you can parse through an XML response, select values from nodes, and then use those values.

Use XPath to parse a response

❖ Write a method that calls one or more actions. Create an instance of the XPath class so that you can use the XPath expressions. Call the actions, read the XML response, and use XPath syntax to select the values you need:
public String scoUrl(String scoId) throws XMLApiException {
    try {
        Element e = request("sco-info", "sco-id=" + scoId);
        if(!(codePath.valueOf(e).equalsIgnoreCase("ok")))
            return "";
        XPath xpath = XPath.newInstance("//url-path/text()");
        String path = ((Text) xpath.selectSingleNode(e)).getText();
        e = request("sco-shortcuts", null);
        xpath = XPath.newInstance("//domain-name/text()");
        String url = ((Text) xpath.selectSingleNode(e)).getText();
        return url + "/" + path.substring(1) + "?session=" + breezesession;
    } catch (JDOMException jde) {
        throw new XMLApiException(PARSE_ERROR, jde);
    }
}

You can also use string pattern matching to check for a status code of ok. A successful action always returns this response:

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

You can check the response for the pattern ok or code="ok".

**Parse an error response**

When an API action completes successfully, it returns a status code of ok. If the call is not successful, it can also return any of the following status codes:

- **invalid** Indicates that the call is invalid in some way, usually invalid syntax.
- **no-access** Shows that the current user does not have permission to call the action, and includes a subcode attribute with more information.
- **no-data** Indicates that there is no data available for the action to return, when the action would ordinarily return data.
- **too-much-data** Means that the action should have returned a single result but is actually returning multiple results.

When the status code is invalid, the response also has an invalid element that shows which request parameter is incorrect or missing:

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="invalid">
    <invalid field="has-children" type="long" subcode="missing" />
  </status>
</results>
```

When the status code is no-access, the subcode explains why:

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="no-access" subcode="denied" />
</results>
```
All valid values for code, subcode, and invalid are described in status, in the API reference. Your application needs to read and handle status codes and subcodes.

Handle status codes

1. Write a method that parses an XML API response for the status code and subcode. This is an example in Java:

   ```java
   private String getStatus(Element el) throws JDOMException {
       String code = codePath.valueOf(el);
       String subcode = subcodePath.valueOf(el);
       StringBuffer status = new StringBuffer();
       if(null != code && code.length() > 0)
           status.append(code);
       if(null != subcode && subcode.length() > 0)
           status.append(" - " + subcode);
       return status.toString();
   }
   ```

2. When you call an action, parse the response for the status.

3. If the status is not ok, return a null value, display the error status code for debugging, or throw an application exception.

   The action to take depends on which call you are making and how your application is designed.

Log a user out

When a user logs out, the user’s session ends, and Adobe Connect invalidates the BREEZESSESSION cookie by setting it to null and using an expiration date that has passed. For example, if you call logout on August 29, 2006, you see this Set-Cookie method in the response header, setting an empty cookie value and an expiration date a year earlier:

   ```
   Set-Cookie: BREEZESSESSION=;domain=.macromedia.com;expires=Mon, 29-Aug-2005
   ```

   If you are managing the BREEZESSESSION cookie, invalidate the value so it is not reused after a user logs out.

Log a user out and invalidate the session cookie

1. Call logout to log the user out:

   ```
   https://example.com/api/xml?action=logout
   ```

2. Parse for a status code of ok to make sure the logout was successful.

3. Set the cookie value to null or otherwise invalidate it. For example, in this Java code snippet, the breezesession variable stores the cookie value and is set to null:

   ```java
   public void logout() throws XMLApiException {
       request("logout", null);
       this.breezesession = null;
   }
   ```
Chapter 4: Basics

To get started with Adobe Connect Web Services, you need to understand three key concepts:

- **Principals**, who are users and groups
- **SCOs**, which are Shareable Content Objects and represent meetings, courses, and just about any content that can be created on Adobe Connect. SCOs (pronounced sko, which rhymes with snow) are compatible with the industry standard Shareable Content Object Reference Model (SCORM) specification and can be used with a Learning Management System (LMS).
- **Permissions**, which define how principals can act on objects

This chapter describes basic tasks you can do with Web Services, regardless of which Adobe Connect applications you have licensed. Many tasks are described as if you are running them in a browser. If you want to make the call from an application, translate the XML request to the language you are working in (for an example of how to do this in Java**, see “Send XML requests” on page 249).

Find a principal-id

A principal is a user or group that has a defined permission to interact with a SCO on the server. You can create users and groups for your organization and modify their permissions.

Adobe Connect also has **built-in groups**: Administrators, Limited Administrators, Authors, Training Managers, Event Managers, Learners, Meeting Hosts, and Seminar Hosts. You can add users and groups to built-in groups, but you can’t modify the permissions of built-in groups.

**Note:** *The built-in groups that are available depend on your account.*

Each Adobe Connect user and group has a **principal-id**. In some API calls, the principal-id is called a group-id or user-id to distinguish it from other values. The value of the ID that identifies a user or group is always the same, regardless of its name. You can check the syntax of any action in ”Action reference” on page 58

### Get the principal-id of a user or group

1. Call **principal-list** with a filter:

   https://example.com/api/xml?action=principal-list&filter-name=jazz doe

   It is best to use filter-name, filter-login, or filter-email for an exact match. Be careful with filter-like-name, as it may affect server performance.

2. Parse the principal elements in the response for the principal-id:

   ```xml
   <principal principal-id="2006282569" account-id="624520" type="user"
   has-children="false" is-primary="false" is-hidden="false">
   <name>jazz doe</name>
   <login>jazzdoe@example.com</login>
   <email>jazzdoe@newcompany.com</email>
   </principal>
   ```

### Get the principal-id of the current user

1. Call **common-info** after the user is logged in:
https://example.com/api/xml?action=common-info

2 Parse the user elements in the response for the user-id:

```xml
<user user-id="2007124930" type="user">
  <name>jazz doe</name>
  <login>jazz@doe.com</login>
</user>
```

Here, the principal-id is called user-id, because it always represents a user who is authenticated to Adobe Connect. A group cannot log in to the server. You can pass the user-id value as a principal-id in other actions.

### List principals or guests

A principal with a type of user is a registered Adobe Connect user, while a user with a type of guest has entered a meeting room as a guest. The server captures information about the guest and gives the guest a principal-id.

#### List all principals on the server

1 Call `principal-list` with no parameters:

```
https://example.com/api/xml?action=principal-list
```

This call returns all Adobe Connect users, so be prepared for a large response.

2 Parse the principal elements in the response for the values you want:

```xml
<principal principal-id="2006282569" account-id="624520" type="user"
  has-children="false" is-primary="false" is-hidden="false">
  <name>jazz doe</name>
  <login>jazzdoe@example.com</login>
  <email>jazzdoe@newcompany.com</email>
</principal>
```

#### List all guests on the server

1 Call `<UNRESOLVED XREF>` report-bulk-users, filtering for a type of guest:

```
https://example.com/api/xml?action=report-bulk-users&filter-type=guest
```

2 Parse the row elements in the response:

```xml
<row principal-id="51157227">
  <login>joy@acme.com</login>
  <name>joy@acme.com</name>
  <email>joy@acme.com</email>
  <type>guest</type>
</row>
```

#### List all users who report to a specific manager

When you call `principal-info` with a principal-id, the response shows the principal. If the principal is a user who has a manager assigned in Adobe Connect, the response also shows data about the principal’s manager in a manager element:
You can use the manager's principal-id with principal-list to list all users who are assigned to the manager.

1 Call principal-list, filtering on manager-id:
   https://example.com/api/xml?action=principal-list&filter-manager-id=2006282569

2 Parse the response for the principal elements:
   <principal principal-id="2006258745" account-id="624520" type="user" has-children="false" manager-id="2006282569">
     <name>Pat Lee</name>
     <login>plee@mycompany.com</login>
     <email>plee@mycompany.com</email>
   </principal>

Create users

To create a new user, you need Administrator privilege. Adobe recommends that you create a user who belongs to the admins group for your application to use to make API calls that require Administrator privilege.

Create a new user and send a welcome e-mail

1 In your application, log in as an Administrator user.
   See Log in from an application for various ways to log in.

2 Call principal-update with at least these parameters:
   https://example.com/api/xml?action=principal-update&first-name=jazz&last-name=doe&login=jazz99@doe.com&password=hello&type=user&send-email=true&has-children=0&email=jazz99@doe.com
   The type must be user, has-children must be 0 or false, send-email must be true, and email must have a valid e-mail address.
   The server sends a welcome e-mail with login information to the user's e-mail address.

3 Parse the principal element in the response for the user's principal-id:
   <principal principal-id="2007184341" type="user" has-children="0">
     <login>jammdoe@example.com</login>
     <email>jammdoe@example.com</email>
   </principal>
Create a new user without using an e-mail address as a login ID

1. In Connect Central, navigate to Administration > Users and Groups > Edit Login and Password Policies. Make sure that Use E-mail Address as the Login is set to No.

2. In your application, log in as an Administrator user.

3. Call `<UNRESOLVED XREF>> principal-update to create the new user, passing both login and email parameters:

   https://example.com/api/xml?action=principal-update&first-name=jazz&last-name=doe&login=jazz&email=jazzdoe@company.com
   &password=nothing&type=user&has-children=0

4. Parse the response for the principal-id of the new user:

   `<principal type="user" principal-id="2007184341" has-children="0" account-id="624520">
   <login>jazzdoe@example.com</login>
   <ext-login>jazzdoe@example.com</ext-login>
   <name>jazz doe</name>
   </principal>`

   In the response, ext-login has the same value as login by default, until the user logs in successfully using external authentication (see Log in using HTTP header authentication).

Update users

Once you create users, you often need to update their information. You can update standard fields that Adobe Connect defines for users by calling principal-update with the user’s principal-id. The standard fields include email, login, first-name, and last-name.

If you have defined custom fields for the principal, use acl-field-update to update them.

You need Administrator privilege to update users, so your application must first log in as a user in the admins group. You cannot log in as the user and then have the user update his or her own profile.

Update standard user information

1. Log in as an Administrator user.

2. Call principal-list with a filter to get the user’s principal-id (see Find a principal-id).

3. Call `<UNRESOLVED XREF>> principal-update to update the user:

   https://example.com/api/xml?action=principal-update
   &principal-id=2006282569&email=jazzdoe@newcompany.com

4. Parse the response for a status code of ok.

Update custom field values for a user

1. Log in as an Administrator user.

2. Call custom-fields to get the field-id of the custom field:

   https://example.com/api/xml?action=custom-fields

3. Get the principal-id, sco-id, or account-id you want to update.

   This value is the acl-id you pass to acl-field-update.
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4 Call acl-field-update to update the value of the custom field:
   https://example.com/api/xml?action=acl-field-update&field-id=x-2007396975&acl-id=2006258745&value=44444

Create custom fields

Custom fields are additional data fields that you define. You can define up to eight custom fields on a principal or SCO using custom-field-update.

Once you define the custom field, by default you can set its value either by editing the value in Adobe Connect Central or by calling custom-field-update.

To specify that the value can only be updated through the API, call custom-field-update with the parameter object-type=object-type-read-only.

Define a custom field and set it on a user
1 First, create the field with custom-field-update:
   https://example.com/api/xml?action=custom-field-update
   &object-type=object-type-principal
   &permission-id=manage
   &account-id=624520
   &name=Location
   &comments=adobe%20location
   &field-type=text
   &is-required=true
   &is-primary=false
   &display-seq=9

   The name field defines the field name as your application displays it, so use appropriate spelling and capitalization.
   The custom field in this example is defined for all Adobe Connect principals.

2 Parse the field element in the response for the field-id:
   <field field-id="2007184366" object-type="object-type-principal"
     display-seq="9" account-id="624520" is-primary="false"
     permission-id="manage" is-required="true" field-type="text">
   <comments>test</comments>
   <name>Country</name>
   </field>

3 Get the principal-id of the user (see Find a principal-id).

4 Call acl-field-update to set the value of the field, passing a field-id, the user’s principal-id as acl-id, and a value:
   https://example.com/api/xml?action=acl-field-update
   &acl-id=2006258745
   &field-id=2007017474
   &value=San%20Francisco

5 Parse the response for a status code of ok.

Create groups

To add users to groups, you need to call principal-update as your application’s Administrator user.

Add a user to a group
1 Log in as your application’s Administrator user.

2 (Optional) If the user does not yet exist, create the user with <<UNRESOLVED XREF>> principal-update:
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https://example.com/api/xml?action=principal-update
&first-name=jazzway&last-name=doe&login=jazz@doe.com
&password=nothing&type=user&has-children=0

3 (Optional) Parse the response for the new user’s principal-id.

4 If the user already exists, call principal-list to get the user’s principal-id:
   https://example.com/api/xml?action=principal-list&filter-type=user

5 Parse the response for the principal-id:
   <principal principal-id="5611980" account-id="624520" type="user"
    has-children="false" is-primary="false" is-hidden="false">
    <name>Joy Black</name>
    <login>joy@acme.com</login>
    <email>joy@acme.com</email>
   </principal>

6 Call principal-list again to get the group’s principal-id:
   https://example.com/api/xml?action=principal-list&filter-type=group

7 Call group-membership-update with is-member=true to add the user to the group:
   https://example.com/api/xml?action=group-membership-update
   &group-id=4930296&principal-id=2006258745&is-member=true
   • The principal-id is the user’s principal-id.
   • The group-id is the group’s principal-id.
   • The parameter is-member must be true.

Check whether a specific user is in a group

1 Call principal-list with a group-id, filter-is-member, and a filter that identifies the principal:
   https://example.com/api/xml?action=principal-list&group-id=624523
   &filter-is-member=true&filter-like-name=bob

2 Parse for a principal element in the response. A successful response looks like this:
   <principal-list>
   <principal principal-id="624660" account-id="624520" type="user"
    has-children="false" is-primary="false" is-hidden="false">
    <name>Bill Jones</name>
    <login>bjones@acme.com</login>
    <email>bjones@acme.com</email>
    <is-member>true</is-member>
   </principal>
   </principal-list>

If the user is not a group member, the principal-list element is empty:

<?xml version="1.0" encoding="utf-8" ?>
<results>
 <status code="ck" />  
<principal-list />
</results>

Check which users are in a group

1 To get the group’s principal-id, call principal-list with filters:
https://example.com/api/xml?action=principal-list&filter-type=group
&filter-name=developers

With filter-type and filter-name, principal-list should return a unique match.

2 Parse the response for the principal-id:

```
<principal principal-id="2007105030" account-id="624520"
    type="group" has-children="true" is-primary="false"
    is-hidden="false">
    <name>developers</name>
    <login>developers</login>
    <is-member>false</is-member>
</principal>
```

3 Call principal-list again, with the principal-id as a group-id and filter-is-member=true:

https://example.com/api/xml?action=principal-list&group-id=2007105030
&filter-is-member=true

4 Parse the response for the principal elements:

```
<principal principal-id="5698354" account-id="624520" type="group"
    has-children="true" is-primary="false" is-hidden="false">
    <name>Bob Jones</name>
    <login>bobjones@acme.com</login>
    <is-member>true</is-member>
</principal>
```

List all groups a user belongs to

1 Call principal-list with the user's principal-id and filter-is-member=true:

https://example.com/api/xml?action=principal-list
&principal-id=2006258745&filter-is-member=true

2 Parse the response for the principal elements:

```
<principal principal-id="5698354" account-id="624520" type="group"
    has-children="true" is-primary="false" is-hidden="false">
    <name>Bob Jones</name>
    <login>bobjones@acme.com</login>
    <is-member>true</is-member>
</principal>
```

Find SCOs

All objects on Adobe Connect are Shareable Content Objects, or SCOs. The word Shareable comes from learning management systems in which content is combined into courses or curriculums and shared among them.

On the server, a SCO can be any content object that is combined with other content objects into a course or curriculum. Courses, curriculums, presentations, and other types of content are SCOs. Meetings, events, folders, trees, links, graphics files, or any other object are also SCOs.

Each SCO has a unique integer identifier called a sco-id. The sco-id is unique across the entire server. On a Adobe Connect hosted account, the sco-id is unique across all accounts.

Each SCO also has a type, such as content, course, meeting, and so on. You can see the sco-id and type values in the response from sco-info or other actions:
Characteristics of SCOs

When you study the XML responses of various calls, you notice more characteristics of SCOs:

- A SCO’s identifier is called a sco-id in some actions, but can also be called folder-id, acl-id, or another name in other actions. It’s the same unique ID.
- Each SCO can be accessed by various principals, either users or groups. The specific principals who can access a SCO are defined in access control lists, or ACLs.
- Each SCO has a unique URL, with two parts: a domain name (like http://example.com) and an URL path (like /f2006123456/). You can concatenate these to form the full URL that accesses the SCO.
- Each SCO has a navigation path that describes where it resides in the folder hierarchy.
- Each SCO has a permission defined for each principal who can access it.
- Some SCOs have description fields, which are text strings that give you information about the SCO.

Often you need to find the ID of a SCO or some information about it. SCOs are arranged in a specific folder hierarchy where folders have names that indicate whether they are at the top level, contain shared content or templates, or hold user content and templates.

When you call sco-shortcuts, it returns a list of folders. Notice that folders have different types:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <shortcuts>
    <sco tree-id="624530" sco-id="2006258751" type="my-meeting-templates">
      <domain-name>http://example.com</domain-name>
    </sco>
    <sco tree-id="624530" sco-id="2006258750" type="my-meetings">
      <domain-name>http://example.com</domain-name>
    </sco>
    <sco tree-id="624529" sco-id="624529" type="meetings">
      <domain-name>http://example.com</domain-name>
    </sco>
    <sco tree-id="624530" sco-id="624530" type="user-meetings">
      <domain-name>http://example.com</domain-name>
    </sco>
    ...
  </shortcuts>
</results>
```

The folders shown in this example happen to be for meetings, but folders for other types of SCOs follow a similar pattern. Each folder type stores certain types of objects, with certain access privileges, as follows:

**content, courses, meetings, events, seminars**  These are shared folders, such as Shared Meetings, Shared Training, and so on. The Adobe Connect Administrator has access to this folder. The Administrator can assign Manage permission to any user, but only members of the built-in group associated with the folder can create new content or meetings within it.

**user-content, user-meetings, user-courses, user-events**  These folders each contain a folder for each user who can create content within it (for example, one folder for each meeting host or training developer).
my-courses, my-events, my-meetings, my-meeting-templates, my-content Users create their own content in these folders and have Manage permission on the content. For example, meeting hosts create meetings in their my-meetings folder and have Manage permission on those meetings.

shared-meeting-templates This folder is within the Shared Meetings folder, contains meeting templates, and inherits permissions from Shared Meetings.

You can list the contents of any folder to get information about a specific SCO. When you need to search for a SCO but do not have a sco-id, move through folders using sco-shortcuts and sco-expanded-contents. Do not use sco-search, as it returns only certain types of SCOs.

Find a SCO when you do not know the sco-id
1 Call <<UNRESOLVED XREF>> sco-shortcuts to get a list of root folders on Adobe Connect:
   https://example.com/api/xml?action=sco-shortcuts
2 Parse the response for a type of the root folder that would logically contain the SCO, for example, my-courses for a course the user has created.
3 Parse the resulting sco element for a sco-id:
   <sco tree-id="4930295" sco-id="2006258748" type="my-courses">
     <domain-name>http://example.com</domain-name>
   </sco>
4 Create a call to <<UNRESOLVED XREF>> sco-expanded-contents to list the contents of the folder, adding an exact match filter, if possible:
   https://example.com/api/xml?action=sco-expanded-contents
     &sco-id=2006258748&filter-name=All About Web Communities

You have several choices of filters:

- An exact match filter on name or url-path (like filter-name or filter-url-path), if you know the name or URL of the SCO.
- A greater-than or less-than date filter (filter-gt-date or filter-lt-date) on date-begin, date-created, or date-modified, if you know one of those dates.
- A partial name filter (like filter-like-name), if you do not know the exact SCO name. However, using this filter might affect system performance.

5 Parse the response for the sco-id:
   <sco depth="1" sco-id="2006745671" folder-id="2006258748" type="folder"
     icon="folder" lang="en" source-sco-id="2006745669" display-seq="0"
     source-sco-type="14">
     <name>A Day in the Life Resources</name>
     <url-path>/f28435879/</url-path>
     <date-created>2006-06-12T14:47:59.903-07:00</date-created>
     <date-modified>2006-06-12T14:47:59.903-07:00</date-modified>
   </sco>

Get information about a SCO
1 Call sco-info with the sco-id:
   https://example.com/api/xml?action=sco-info&sco-id=2006745669
2 Parse the response for name, url-path, or any other value:
Construct the URL to a SCO

1 Call `sco-shortcuts`:
   
   https://example.com/api/xml?action=sco-shortcuts

2 Parse the response for the `domain-name` value in any `sco` element:
   
   ```xml
   <sco tree-id="624530" sco-id="2006258750" type="my-meetings">
     <domain-name>http://example.com</domain-name>
   </sco>
   ```

3 Call `sco-info` with the `sco-id`:
   
   https://example.com/api/xml?action=sco-info&sco-id=2006334909

4 Parse the response for the `url-path`:
   
   ```xml
   <sco account-id="624520" disabled="" display-seq="0"
      folder-id="2006258748" icon="producer" lang="en" max-retries=""
      sco-id="2006334909" source-sco-id=""
      type="content" version="1">
     <date-created>2006-05-11T12:00:02.000-07:00</date-created>
     <date-modified>2006-05-16T15:22:25.703-07:00</date-modified>
     <name>Test Quiz</name>
     <url-path>/quiz/</url-path>
     <passing-score>10</passing-score>
     <duration>15100.0</duration>
     <section-count>6</section-count>
   </sco>
   ```

   The `url-path` has both leading and trailing slashes. You can take the `url-path` from `report-my-meetings`, `report-my-training`, or any call that returns it.

5 Concatenate the `url-path` with the `domain-name`:
   
   http://example.com/f2006258748/

Download files

You can download zip files from Adobe Connect to a user’s local computer. A zip file is a SCO. To download it, you need to construct a download URL to the zip file, which looks like this:

http://server-domain/url-path/output/url-path.zip?download=zip

You probably already know the domain name of your server (such as `example.com`). If you do not, you can get it by calling `sco-shortcuts`. 
Download a zip file from the server
1 Call sco-shortcuts:
   https://example.com/api/xml?action=sco-shortcuts

2 Extract any domain-name value from the response:
   http://example.com

3 Call sco-info with the sco-id of the zip file:
   https://example.com/api/xml?action=sco-info&sco-id=2006258747

   The SCO is the entire zip file.

4 Parse the response for the url-path element:
   <sco account-id="624520" disabled="" display-seq="0" folder-id="624522"
      icon="folder" lang="en" max-retries="" sco-id="2006258747"
      source-sco-id="" type="folder" version="1">
      <date-created>2006-04-18T10:21:47.020-07:00</date-created>
      <date-modified>2006-04-18T10:21:47.020-07:00</date-modified>
      <name>joy@acme.com</name>
      <url-path>/f124567890/</url-path>
   </sco>

5 Construct the download URL, for example:
   https://example.com/quiz/output/quiz.zip?download=zip

   Be sure to remove the trailing slash from the url-path value before adding .zip to it (so you have a value like /quiz.zip, not /quiz/.zip).

Check permissions

Permissions define the ways in which a principal can interact with a SCO.

A permission mapping, indicating what permissions a principal has for a particular SCO, is called an access control list or ACL. An ACL consists of three pieces of information:

- The ID of a principal (a principal-id).
- The ID of a SCO, account, or principal being acted on. In permission calls, it’s called an acl-id. In other calls, the ID might be called a sco-id, account-id, or principal-id.
- A keyword that indicates the permission level the principal has, which is one of the valid values in permission-id.

Check the permission a principal has on a SCO
1 Call permissions-info with both an acl-id and principal-id:
   https://example.com/api/xml?action=permissions-info&acl-id=2006334909&principal-id=2006258745

   To check for permissions on a SCO, the acl-id is a sco-id. The acl-id can also be a principal-id or account-id.

2 Parse the response for a permission-id:
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code="ok" />
   <permission acl-id="2007035246" permission-id="view"
      principal-id="2006258745" />
</results>

If a principal does not have an explicit permission to the SCO (in other words, if permission-id=""), the principal’s permissions on the SCO’s parent object apply.

Check all principals’ permissions on a SCO

1 Call permissions-info with an acl-id, but no principal-id:
   https://example.com/api/xml?action=permissions-info&acl-id=2006293572

2 Iterate through the principal elements and parse them for permission-id values:
   <principal principal-id="2596608" is-primary="false" type="user"
      has-children="false" permission-id="view">
      <name>Jay Arnold</name>
      <login>jay@example.com</login>
   </principal>

   The valid permission values are listed in permission-id.
Chapter 5: Meetings

Custom applications can display, create, and delete Adobe® Connect™ meetings in a web application, portal, or other environment.

Using web services with Adobe Connect meetings

Custom applications can display, create, and delete Adobe® Connect™ meetings in a web application, portal, or other environment.

When users click a meeting room URL, they enter Adobe Connect, which hosts the meeting room. Adobe Connect then streams audio, video, and rich media content to the meeting room users.

Adobe recommends the following actions for meeting applications:

- **report-my-meetings** To display a user’s meetings.
- **sco-update** To create a meeting room or update information about it.
- **permissions-update** To add a host, presenter, and participants to a meeting.
- **report-bulk-consolidated-transactions** To calculate meeting usage, especially the amount of time each user has spent in the meeting.
- **report-quiz-interactions** To get the results of a meeting poll.

Some actions that handle meetings require Administrator privilege, as noted in the task instructions. Create an Adobe Connect user who is a member of the `admins` group for your application to use to make these calls.

Find meetings

You often need to locate the `sco-id` of a meeting so that you can invite users, get report information about it, or update it in some other way.

You should understand the structure of folders in which meetings can be stored. By default, meetings are stored in the host’s My Meetings folder (called `my-meetings` in the API). For more details on the folder structure, see Characteristics of SCOs.

Find the `sco-id` of a meeting

1. Call `sco-shortcuts`:
   
   https://example.com/api/xml?action=sco-shortcuts

2. Parse the response for the `sco-id` of a meetings folder that is likely to contain the meeting:
   
   `<sco tree-id="624530" sco-id="624530" type="user-meetings">`  
   
   `<domain-name>http://example.com</domain-name>`
   
   `</sco>`

   The folder name should be `meetings`, `user-meetings`, or `my-meetings`. Use a folder as far down the tree as you can.

3. Call `sco-contents` on the folder, adding a filter or two to reduce the response:
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Meetings

https://example.com/api/xml?action=sco-contents&sco-id=2006258750
&filter-type=meetings&filter-name=Intro to Film

- The more specific you can make the filters, the better. Good filters to use are filter-name, filter-url-path, or a date filter. Be careful with using filter-like-name, as it might affect system performance.
- You can also call sco-expanded-contents to list subfolders and their contents. However, sco-contents is better for server performance, if you know the sco-id of the folder that contains the meeting.

4 Parse the response for the sco-id of the meeting:

```
<sco sco-id="2006743452" source-sco-id="-1625529" folder-id="2006258750"
    type="meeting" icon="meeting" display-seq="0" is-folder="0">
    <name>Intro to Film</name>
    <url-path>/film/</url-path>
    <date-begin>2006-06-09T14:00:00.000-07:00</date-begin>
    <date-end>2006-06-09T20:00:00.000-07:00</date-end>
    <date-modified>2006-06-09T14:07:13.767-07:00</date-modified>
    <duration>06:00:00.000</duration>
</sco>
```

List all meetings on the server

❖ Call report-bulk-objects with type=meeting:

https://example.com/api/xml?action=report-bulk-objects&filter-type=meeting

The response has a row element for each meeting, showing the meeting URL, name, and dates:

```
<row sco-id="2007372149" type="meeting">
    <url>/monday/</url>
    <name>Monday Staff Meeting</name>
    <date-created>2006-12-18T14:15:00.000-08:00</date-created>
    <date-end>2006-12-19T02:15:00.000-08:00</date-end>
    <date-modified>2006-12-18T17:13.767-07:00</date-modified>
</row>
```

Display meetings

In your application, you might want to lists of Adobe Connect meetings, such as a user’s present or future scheduled meetings.

An application workflow might log a user in and display the user’s meetings, or it might add the user to a meeting and then display meetings. Displaying the user’s meetings means listing the contents of the my-meetings folder.

Display a user’s meetings

1 Log the user in (see Log in from an application).

2 Call report-my-meetings to list the user’s meetings:

https://example.com/api/xml?action=report-my-meetings

You can add a filter to reduce the response. For example, you can exclude meetings that have ended:

https://example.com/api/xml?action=report-my-meetings
&filter-expired=false

3 Parse the response for values from the meeting elements:
Create the URL to the meeting room by concatenating http:// or https://, domain-name, and url-path.

Add a user to a meeting and display meetings

1 Log in as your application's Administrator user.
2 Get the user's principal-id (see Find a principal-id).
3 Get the sco-id of the meeting (see Find meetings).
4 Call permissions-update to add the user to the meeting:

   https://example.com/api/xml?action=permissions-update &acl-id=2006258765&principal-id=2006258745&permission-id=view

   Use a permission-id of view for a participant, mini-host for presenter, or host for a meeting host.
5 Log out as the Administrator user, and log in as the user you just added to the meeting.
6 Display the user's current meetings:

   https://example.com/api/xml?action=report-my-meetings &filter-expired=false

Create meeting room URLs

You have several choices of how to construct the URL to a meeting room. The best action to call depends on how your application is logged in and where you are in your application workflow.

By default, the meeting room is created in the host’s my-meetings folder.

Create the URL to a meeting room for which the user is host

1 If you are logged in as a user, and you want to create a URL to a meeting in the user's my-meetings folder, call report-my-meetings:

   https://example.com/api/xml?action=report-my-meetings

2 Parse the response for the values of domain-name and url-path:
<meeting sco-id="2007063179" type="meeting" icon="meeting"
    permission-id="host" active-participants="0">
    <name>September All Hands Meeting</name>
    <domain-name>example.com</domain-name>
    <url-path>/sept15/</url-path>
    <date-begin>2006-09-15T09:00:00.000-07:00</date-begin>
    <date-end>2006-09-15T18:00:00.000-07:00</date-end>
    <expired>false</expired>
    <duration>09:00:00.000</duration>
</meeting>

3 Concatenate the two values and add http:// or https:// at the beginning:
https://example.com/online/

If you are using HTTPS and you do not explicitly add https://, the URL defaults to http://, and the user might not be able to access the meeting room.

Create the URL to a meeting room for which the user is not host

1 Get the sco-id of the meeting (see Find meetings).
2 Call sco-info with the sco-id:
https://example.com/api/xml?action=sco-info&sco-id=2006258750
3 Parse the response for the url-path:
<sco account-id="624520" disabled="" display-seq="0" folder-id="624530"
    icon="folder" lang="en" max-retries="" sco-id="2006258750"
    source-sco-id="" type="folder" version="1">
    <date-created>2006-04-18T10:21:47.020-07:00</date-created>
    <date-modified>2006-04-18T10:21:47.020-07:00</date-modified>
    <name>joy@acme.com</name>
    <url-path>/f1234567890/</url-path>
</sco>

4 (Optional) If you know the domain name of your Adobe Connect Server account, create the URL using http:// or https://, then the domain-name, then the url-path.
5 If you do not know the domain name, call common-info:
https://example.com/api/xml?action=common-info
6 Parse the response for the value of the host element.

Create meetings

A user must be an Administrator to create a Adobe Connect meeting, which means the user is a member of the Meeting Hosts group. In the response from principal-list, this group has type=live-admins.

A meeting can be public, protected, or private, and to create each, you need to set a specific combination of principal-id and permission-id:

- Public, equivalent to Anyone who has the URL for the meeting can enter the room
  principal-id=public-access&permission-id=view-hidden

- Protected, equivalent to Only registered users and accepted guests can enter the room
  principal-id=public-access&permission-id=remove
If a meeting is protected, registered users invited as meeting participants can enter by clicking the meeting room URL and logging in. Users who are not invited can log in as guests. The meeting host receives a guest’s request to enter (known as knocking) and can accept or decline.

- Private, which is equivalent to Only registered users and participants can enter. The login page does not allow guests to log in.

principal-id=public-access&permission-id=distributed

Create a public meeting and add host, presenter, and participants

1 Call principal-list to check that the user creating the Adobe Connect meeting is a member of the live-admins group:

https://example.com/api/xml?action=principal-list&group-id=624523 &filter-is-member=true&filter-like-name=bob

2 Call sco-shortcuts to obtain the sco-id of the user’s my-meetings folder:

https://example.com/api/xml?action=sco-shortcuts

3 Parse the response for the sco element with type=my-meetings:

<sco tree-id="624530" sco-id="2006258750" type="my-meetings">
  <domain-name>http://example.com</domain-name>
</sco>

4 Call sco-update to create the meeting room:

https://example.com/api/xml?action=sco-update
  &type=meeting&name=October All Hands Meeting &folder-id=2006258750&date-begin=2006-10-01T09:00 &date-end=2006-10-01T17:00&url-path=october

The folder-id is the sco-id of the user’s my-meetings folder.

5 Parse the response for the sco-id of the new meeting:

<sco folder-id="2006258750" lang="en" account-id="624520" type="meeting" icon="meeting" sco-id="2007184134" version="0">
  <date-begin>2006-10-01T09:00</date-begin>
  <date-end>2006-10-01T17:00</date-end>
  <url-path>/october/</url-path>
  <name>October All Hands Meeting</name>
</sco>

You might want to store the url-path to the meeting, if you plan to create a URL to the meeting room later.

6 Call permissions-update to make the meeting public. Use the sco-id of the meeting as the acl-id:

https://example.com/api/xml?action=permissions-update&acl-id=2007184134 &principal-id=public-access&permission-id=hidden

7 Call permissions-update to add a host, a presenter, and participants:

https://example.com/api/xml?action=permissions-update
  &principal-id=2006258745&acl-id=200718414&permission-id=host
  &permission-id=host
  &permission-id=view

- Use a permission-id of host for the meeting host.
- Use mini-host for the presenter.
- Use view for meeting participants.
You can specify multiple trios of principal-id, acl-id, and permission-id on one call to permissions-update.

Create a private meeting and add host, presenter, and participants

1. Log in as your application’s Administrator user.
2. Follow the steps for creating a public meeting, but set the meeting permission to private:
   https://example.com/api/xml?action=permissions-update&acl-id=2007018414
   &principal-id=public-access&permission-id=distributed
3. Call permissions-update again to add a host, a presenter, and guests.
4. Create the URL to the meeting room (see Create meeting room URLs).

Set or reset a meeting passcode

By default, when meeting hosts create meetings, they can set a passcode that users must enter to join the meeting. In Connect Central, Account Administrators can enable and disable the ability to enforce passcodes; the ability to enforce passcodes is disabled by default.

Use the Web Services API to do the following:

- Enable and disable the ability of meeting hosts to enforce passcodes for meetings.
- Set, reset, or remove the passcode for a meeting.
- Check whether a meeting has a passcode
- View a list of meetings that require passcodes

Enable and disable the ability to passcode protect meeting rooms

To enable the passcode protect option for an account, call the following API:

http://<server>/api/xml?action=meeting-feature-update&account-id=<acc_id>&feature-id=fid-meeting-passcode-notallowed&enable=false

To disable the passcode protect option, pass enable=true.

Note: Only administrators can call meeting-feature-update to enable or disable a meeting feature.

Check whether the enforce passcode option is enabled for an account

Call the meeting-feature-info API:

http://<server>/api/xml?action=meeting-feature-info&account-id=<acc_id>

If the result list contains feature-id=fid-meeting-passcode-notallowed, the passcode option is enabled. Otherwise, the passcode option is not enabled. By default, the passcode options is disabled.

Set, reset, or remove a passcode

Call the acl-field-update API and pass the meeting-passcode parameter:

http://<server>/api/xml?action=acl-field-update&acl-id=<sco-id>&field-id=meeting-passcode&value=<passcode>

To remove a passcode, set the value parameter to empty:
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http://<server>/api/xml?action=acl-field-update&amp;acl-id=<sco-id>&amp;field-id=meeting-passcode&amp;value=

Note: Only administrators and meeting hosts can call acl-field-update with field-id=meeting-passcode.

Check whether a meeting has a passcode

http://<server>/api/xml?action=acl-field-info&amp;filter-field-id=meeting-passcode&amp;acl-id=<sco-id>

If a meeting has a passcode, the result is as follows:

(results)
<status code="ok"/>
<acl-fields>
<field acl-id="22701" field-id="meeting-passcode"><value>connect12</value></field>
</acl-fields>
</results>

If passcode is not set then the result is:

(results)
<status code="ok"/>
<acl-fields/>
</results>

Note: Only administrators can call acl-field-info.

View a list of meetings that require passcodes:

http://<server>/api/xml?action=acl-field-list&amp;field-id=meeting-passcode

The result is the list of acl-ids (meeting-ids):

(results)
<status code="ok"/>
<acl-field-list>
<acl acl-id="21907">
<value>breeze</value>
</acl>
<acl acl-id="22701">
<value>connect12</value>
</acl>
<acl acl-id="21401">
<value>raj</value>
</acl>
</acl-field-list>
</results>

Note: Only administrators can call acl-field-list.

Create customized meetings

When you create a Adobe Connect meeting, you can assign it a meeting room template that creates a custom layout for the meeting room. If you don’t assign a template, the meeting room is created with the default meeting template.

To edit a meeting room template, launch Connect Central and click the template’s URL. You can edit the template while it is in a meeting templates folder (either My Templates or Shared Templates), if you have edit privileges on the folder.
Create a meeting room using a template
1  Log in as your application’s Administrator user.
2  Call sco-shortcuts:
   https://example.com/api/xml?action=sco-shortcuts
3  Parse the response for the sco-id of a folder that contains meeting templates:
   <sco tree-id="624529" sco-id="-625529" type="shared-meeting-templates">
   <domain-name>http://example.com</domain-name>
   </sco>
   <sco tree-id="624530" sco-id="2006258751" type="my-meeting-templates">
   <domain-name>http://example.com</domain-name>
   </sco>
4  Call sco-contents, passing it the sco-id of the meeting templates folder:
   https://example.com/api/xml?action=sco-contents&sco-id=2006258751
5  Parse the response for the sco-id of the meeting template you want.
6  Create the meeting using sco-update. Pass it the sco-id of the meeting template as a source-sco-id:
   https://example.com/api/xml?action=sco-update&type=meeting
   &name=August%20All%20Hands%20Meeting&folder-id=2006258750
   &date-begin=2006-08-01T09:00&date-end=2006-08-01T17:00
   &url-path=august&source-sco-id=2006349744
7  Continue to set permissions for the meeting and add participants, host, and presenter (see Create meetings).
8  Create the URL to the meeting room (see Create meeting room URLs).

Invite users to meetings

Once you create a Adobe Connect meeting and add participants and presenters, you may want to send invitations by e-mail. To send a meeting invitation, you need information about the meeting, including the meeting name, the host’s name and e-mail address, the meeting room URL, the date and time of the meeting, and the participant’s (or presenter’s) name and e-mail address.

You can construct an e-mail message using any technique that works with your user interface. Extract specific information about the meeting using the following steps.

Send an e-mail to meeting participants
1  Call sco-info with the meeting sco-id:
   https://example.com/api/xml?action=sco-info&sco-id=2006334033
2  Parse the response for the meeting name, date, or other values:
3 Construct the URL to the meeting room (see Create meeting room URLs).

4 Call permissions-info to get the principal-id values of the presenters or participants, filtering on permission-id:

https://example.com/api/xml?action=permissions-info
&acl-id=2007018414&filter-permission-id=mini-host

- For a list of presenters, use permission-id=mini-host.
- For participants, use permission-id=view.

5 Parse the response for the principal-id values you want:

```xml
<principal principal-id="2006282569" is-primary="false" type="user"
has-children="false" permission-id="view">
  <name>jazz doe</name>
  <login>jazzdoe@example.com</login>
</principal>
```

6 Call principal-info with the principal-id:

https://example.com/api/xml?action=principal-info
&principal-id=2006282569

7 Extract the name and email values from the response:

```xml
<principal account-id="624520" disabled="" has-children="false" type="user">
  <ext-login>jazzdoe@example.com</ext-login>
  <login>jazzdoe@example.com</login>
  <name>jazz doe</name>
  <email>jazzdoe@newcompany.com</email>
  <first-name>jazz</first-name>
  <last-name>doe</last-name>
  <x-2006293620>E3612</x-2006293620>
  <x-2007017651>San Francisco</x-2007017651>
</principal>
```

8 Call permissions-info again, filtering on a permission-id of host:

https://example.com/api/xml?action=permissions-info&acl-id=2007018414
&filter-permission-id=host

9 Parse the response for the principal-id:
<principal principal-id="2006282569" is-primary="false" type="user" has-children="false" permission-id="host">
  <name>jazz doe</name>
  <login>jazzdoe@example.com</login>
</principal>

10 Call principal-info, using the principal-id:
https://example.com/api/xml?action=principal-info
&principal-id=2006258745

11 Parse the principal element of the response for the name and login (or name and email):

<principal account-id="624520" disabled="" has-children="false"
  is-hidden="false" is-primary="false" principal-id="2006282569"
  type="user">
  <ext-login>jazzdoe@example.com</ext-login>
  <login>jazzdoe@example.com</login>
  <name>jazz doe</name>
  <email>jazzdoe@newcompany.com</email>
  <first-name>jazz</first-name>
  <last-name>doe</last-name>
  <x-2006293620>E3612</x-2006293620>
  <x-2007017651>San Francisco</x-2007017651>
</principal>
These are for the sender of the e-mail, who is the meeting host.

Remove users from meetings

Occasionally a user is invited to a Adobe Connect meeting as participant or presenter but later needs to be removed from the participant list. Removing the user has various results, depending on whether the meeting is public or private:

- **For a public meeting:** The user’s permission (participant, presenter, or host) is removed, but the user can still enter the meeting as a guest.
- **For a private meeting:** The user’s permission is removed, and the user can enter only as a guest and with approval from the meeting host.

To remove a user’s permission to enter, call permissions-update with a special permission value, permission-id=remove.

If the meeting is in progress and the user has already entered the room, the user is not removed from the meeting. However, when the user’s session times out, the user cannot reenter.

Remove a user’s permission to access a meeting

1 (Optional) Call permissions-info- to check the principal’s permission to enter the meeting:
https://example.com/api/xml?action=permissions-info&acl-id=2007018414

   However, you do not need to know the specific permission the principal has before you remove the permission.

2 Get the meeting’s sco-id (see Find meetings).
3 Get the user's principal-id (see Find a principal-id).
4 Call permissions-update, using the meeting’s sco-id as the acl-id and permission-id=remove:
Calculate meeting usage

Once you create users and Adobe Connect meetings, you may need to calculate meeting usage. Meeting usage is often calculated in one of these ways:

- The time each user spends in a specific meeting, in minutes per user
- The number of concurrent meeting participants

The time a user spends in a meeting is measured by a transaction, which is the interaction between a principal and a SCO (in this case, between a user and a meeting). The date and time a transaction begins and ends are returned by `report-bulk-consolidated-transactions`.

Calculate time spent in meetings per user

1. Call `report-bulk-consolidated-transactions`, filtering for meetings and another value to identify the meeting, such as a date:

   ```
   https://example.com/api/xml?action=report-bulk-consolidated-transactions
   &filter-type=meeting&filter-gt-date-created=2006-07-01
   ```

   - The second filter can be for the date the transaction began or ended, the principal-id of the user, the sco-id of a specific meeting, or another valid filter that meets your needs.
   - This call returns all transactions that meet the filter criteria. Be prepared for a large response.
   - The call also returns only users who logged in to the meeting as participants, not users who entered as guests.

2. Parse the row elements in the response for date-created and date-closed:

   ```
   <row transaction-id="2007071217" sco-id="2007071193" type="meeting" principal-id="2007003123" score="0">
     <name>Thursday Meeting</name>
     <url>/thursday/</url>
     <login>jazz@doe.com</login>
     <user-name>jazzwayjazz doe</user-name>
     <status>completed</status>
     <date-created>2006-08-03T12:33:48.547-07:00</date-created>
     <date-closed>2006-08-03T12:34:04.093-07:00</date-closed>
   </row>
   ```

3. In your application, calculate the time difference between the two dates.

   One way to do this (in Java™) is to write a utility method that converts the ISO 8601 datetime values returned in the response to a GregorianCalendar object. Then, convert each GregorianCalendar date to milliseconds, calculate the difference between the creation and closing times, and convert the difference to minutes.

4. Repeat for all the meeting transactions that meet your criteria, and total the meeting usage times.
Check meeting quotas

The number of concurrent meeting participants you can have is determined by your Adobe Connect license. To check your quota for the number of concurrent meeting participants, call `report-quotas` and look for the quota named `concurrent-user-per-meeting-quota` in the response:

```xml
<quota acl-id="624529" quota-id="concurrent-user-per-meeting-quota" used="0"
  limit="unlimited" soft-limit="1000000000">
  <date-begin>2004-03-09T09:45:02.297-08:00</date-begin>
  <date-end>2999-12-31T16:00:00.000-08:00</date-end>
</quota>
```

The quota has both a limit and a soft limit. The soft limit is the concurrency limit purchased for the account. It is the same as the limit, unless you purchase a Burst Pack for meetings, which allows additional participants to join past the limit, on an overage basis.

Without a Burst Pack, Adobe Connect enforces the concurrency limit and participants who try to enter after the quota is reached are rejected. If your limit is 20 attendees, attendee 21 receives a notice that the meeting room is full.

All accounts enforce the quotas that are set when the account is created. Accounts do not allow overages, unless you have a Burst Pack. Furthermore, Burst Packs are only for meetings, not for training or seminars.

Check your meeting concurrency quota and usage

1. Call `report-quotas` to check your quota for concurrent meeting users:
   ```plaintext```
   https://example.com/api/xml?action=report-quotas
   ```plaintext```

2. Parse the response for the `quota` element with a `quota-id` value of `concurrent-user-per-meeting-quota`.

3. Extract the value of `soft-limit`, the limit defined by your Adobe Connect license.

4. Call `report-meeting-concurrent-users` to check the peak number of concurrent meeting participants on your server or in your account:
   ```plaintext```
   https://example.com/api/xml?action=report-meeting-concurrent-users
   ```plaintext```

5. Parse the response for the `report-meeting-concurrent-users` element. Read the value of the `max-users` attribute and compare it to the value of `soft-limit`:
   ```xml
   <?xml version="1.0" encoding="utf-8" ?>
   <results>
     <status code="ok" />
     <report-meeting-concurrent-users max-users="18"
       max-participants-freq="3" />
   </results>
   ```

Get meeting archives

A Adobe Connect meeting can have one or more recorded archives. If the meeting recurs weekly, for example, it might have an archive for each session.

A meeting archive is identified with `type=content` and `icon=archive`. The `icon` value works as a subcategory of `type`, to identify the type of content.

List archives for a meeting room

1. Get the `sco-id` of the meeting (see Find meetings).
2 Call sco-expanded-contents with the sco-id and filter-icon=archive to list all archives associated with the meeting:

https://example.com/api/xml?action=sco-contents&sco-id=2007018414
&filter-icon=archive

3 Parse the response for the sco element and extract the information you want, such as name, date-created, or url-path:

```xml
<sco sco-id="2598402" source-sco-id="" folder-id="2598379"
  type="content" icon="archive" display-seq="0" is-folder="0">
  <name>EN - Monday Night Football_0</name>
  <url-path>/p71144063/</url-path>
  <date-begin>2004-05-17T15:51:54.670-07:00</date-begin>
  <date-end>2004-05-17T15:54:52.920-07:00</date-end>
  <date-modified>2004-05-17T15:55:00.733-07:00</date-modified>
  <duration>00:02:58.250</duration>
</sco>
```

Get meeting poll results

To access the results of a poll used during a meeting, use report-quiz-interactions. This action returns all poll results, but you can use a filter to reduce the response.

Each multiple-choice response in the poll has an integer identifier, with the first response in the displayed list numbered 0, the second $l$, and so on.

Get the results of a meeting poll

1 Be sure that the meeting host has closed the poll.

   The poll results are cached in the meeting until the poll is closed.

2 Get the sco-id of the meeting (see Find meetings).

3 Call report-quiz-interactions, using the meeting's sco-id:

   https://example.com/api/xml?action=report-quiz-interactions
   &sco-id=2007071193

4 (Optional) Add a filter to reduce the response, for example:
   - filter-response=1 to check all users who made a specific response
   - filter-interaction-id=2007027923 to check all responses to a poll (a meeting might have several polls)

5 Parse the response for response, name, or any other values:

   ```xml
   <row display-seq="1" transcript-id="2007071200"
   interaction-id="2007027923" sco-id="2007071193" score="0">
     <name>jazz doe</name>
     <sco-name>Thursday Meeting</sco-name>
     <date-created>2006-08-03T12:29:09.687-07:00</date-created>
     <description>What is your favorite color?</description>
     <response>4</response>
   </row>
   ```

Last updated 12/16/2010
Launch meetings with external authentication

Once a user logs in to your network and you authenticate the user to the Adobe Connect Server using an external authentication credential, you may want to allow the user to enter a meeting as participant or guest without having to log in a second time to Adobe Connect.

Launch a meeting and let the user enter as participant
1. Once the user is authenticated on your network, log the user in to Adobe Connect (see Log in using HTTP header authentication for details).
2. Get the value of the BREEZESESSION cookie for the user’s session, in one of two ways:
   - Call common-info and retrieve the value of cookie from the response:
     `<cookie>breezma6zor9rdfps8h6a</cookie>`
   - Retrieve the value of the BREEZESESSION cookie from the response header:
     ```
     Set-Cookie: BREEZESESSION=breezqw4vtfarqxvf9pk2;
                 domain=.macromedia.com;path=/
     ```
3. Create a meeting room URL (see Create meeting room URLs for details).
4. Append a `session` parameter and the BREEZESESSION cookie value to the meeting room URL:
   ```
   http://example.com/employeeMeeting/?session=breezbityp829r9ozv5rd
   ```
5. Open the meeting room URL that has `session` appended. One way to do this is with a JavaScript onclick command:
   ```
   <a href="http://example.com/employeeMeeting/"
      onClick="javascript:window.open('http://example.com/employeeMeeting/?session=breezbityp829r9ozv5rd','Breeze', 'toolbar=no,menubar=no,width=800,height=600,resizable=yes'); return false">http://example.com/employeeMeeting/</a>
   ```

Launch a meeting and let the user enter as guest
1. Once the user is authenticated on your network, log the user in to Adobe Connect (see Log in using HTTP header authentication for details).
2. Get the value of the BREEZESESSION cookie for the user’s session, in one of two ways:
   - Call common-info and retrieve the value of cookie from the response:
     `<cookie>breezma6zor9rdfps8h6a</cookie>`
   - Retrieve the value of the BREEZESESSION cookie from the response header after calling login:
     ```
     Set-Cookie: BREEZESESSION=breezqw4vtfarqxvf9pk2;
                 domain=.macromedia.com;path=/
     ```
3. In your application, create a meeting room URL (see Create meeting room URLs).
4. Append a `guestname` parameter and the user’s guest display name to the meeting room URL:
   ```
   http://example.com/employeeMeeting/?guestName=joy
   ```
5. Open the meeting room URL that has the `guestname` parameter. One way to do this is with a JavaScript onclick command:
   ```
   <a href="http://example.com/employeeMeeting/"
      onClick="javascript:window.open('http://example.com/employeeMeeting/?guestName=joy','Breeze', 'toolbar=no,menubar=no,width=800,height=600,resizable=yes'); return false">http://example.com/employeeMeeting/</a>
   ```
Configure compliance settings

Depending on your organization, you might need to configure your system to ensure compliance with governmental regulations and industry standards regarding communication. You can use Adobe Connect to monitor communication data in many ways. For example, you can disable the use of pods, set Adobe Connect to always or never record meetings, generate transcripts of chat sessions, create a notice that recording is taking place, and more. You can also control user access in several ways. For example, you can distinguish between authenticated and non-authenticated users, restrict access to meetings rooms based on roles, and block guest access to rooms. For more information, see Adobe Connect User Guide.

When you change the settings for these features, the changes take effect when a new meeting is started or when the server is refreshed. The typical refresh interval is 10 minutes. The next meeting that starts after the server is refreshed reflects any new settings.

Changing certain settings through the XML API can affect the use of other features. For example, when the attendee list is disabled (meeting-feature-update), users cannot create breakout rooms. Therefore, to prevent user confusion, disable the breakout rooms feature at the same time.

Disabling pods

When you disable pods, the layout of a meeting room is affected and may have more empty white space than you want. Administrators can either resize remaining pods to occupy the empty space (the recommended approach), or create new meeting room templates. Otherwise, after a meeting starts, the host can manually resize pods as they see fit.

If a pod with persistent data, such as a Chat pod, is disabled and then re-enabled between different sessions of the same meeting, the contents of the old pod are lost.

Disable the Chat and Note pods

1. Get the account ID for the account under which the meeting exists.
2. Log in using the administrative account.
3. Call meeting-feature-update, passing fid-meeting-chat and fid-meeting-note as arguments to the feature-id parameter, and setting the enable attribute for both parameters to false.
4. Refresh the server or start a new meeting to see the change.

The following code disables the Chat and Note pods:

http://localhost/api/xml?action=meeting-feature-update&account-id=7&feature-id=fid-meeting-chat&enable=false&feature-id=fid-meeting-note&enable=false

Managing chat transcripts

To configure Adobe Connect to generate chat transcripts, select Generate chat transcripts for all meetings in Adobe Connect Central or call meeting-feature-update with the feature-id fid-chat-transcripts.

To get a chat transcript, you need the sco-id of the chat session. Use a combination of XML APIs to get the sco-id of a specific transcript. You can then get the transcript from the following Adobe Connect directory:

[RootInstall]/content/account-id/transcript-sco-id/output/

Get chat transcripts

1. Get the sco-id of the chat transcripts tree by calling sco-shortcuts:

   [http://example.com/api/xml?action=sco-shortcuts&account-id=7]
2 Parse the response for the chat transcripts tree-id:

```
<shortcuts>
  <sco tree-id="10026" sco-id="2006258748" type="chat-transcripts">
    <domain-name>http://example.com</domain-name>
  </sco>
  ...
</shortcuts>
```

3 Get the list of chat transcripts for a particular meeting by calling `sco-contents` with the chat transcripts tree-id and the filter `source-sco-id`:

```
```

In the example above, 10026 is the sco-id of the chat transcripts tree and 10458 is the sco-id of the meeting. (You can get the sco-id of the meeting from the URL of the meeting information page.)

The list of SCOs that is returned represents the chat transcripts for the meeting.

4 Find the chat transcript in the Adobe Connect directory `[RootInstall]/content/account-id/transcript-sco-id/output/`.

**Forcing meetings to be recorded**

You can set up Adobe Connect to record all meetings. Adobe recommends that when meetings are recorded, you show a disclaimer to notify users that the meeting is being recorded.

**Force meetings to be recorded**

1 Disable the setting that lets hosts control recording (`fid-archive`) and enable automatic recording (`fid-archive-force`) by calling `meeting-feature-update`. Pass the two feature-id arguments:

```
```

2 See “Setting up disclaimer notices” on page 45.

3 Refresh the server or start a new meeting to see the change.

**Setting up disclaimer notices**

You can set up a disclaimer notice to appear when a user enters a meeting. A disclaimer notice typically displays boilerplate information for your organization. It advises users of the status of the meeting and the terms of use for the meeting. For example, a disclaimer notice could advise users that the meeting is being recorded, and that users cannot join the meeting unless they accept the notice. By default, this option is disabled.

**Set up a disclaimer notice**

1 Call `meeting-disclaimer-update` and set the text for the disclaimer notice:

```
https://example.com/api/xml?action=meeting-disclaimer-update&account-id=7&disclaimer=Please note that this meeting is being recorded.
```

2 Call `meeting-feature-update` to activate the disclaimer:

```
https://example.com/api/xml?action=meeting-feature-update&account-id=7&feature-id=fid-meeting-disclaimer&enable=true
```

3 Refresh the server or start a new meeting to see the change.
Controlling share settings

You can control settings related to the information that a user can share with other users during a meeting. Call `meeting-feature-update` and pass the appropriate feature ID or multiple feature IDs to enable or disable a share setting. For example, to disable screen sharing, call the following code:

https://example.com/api/xml?action=meeting-feature-update&account-id=7&feature-id=fid-meeting-desktop-sharing&enable=false

The following table lists the feature IDs for share settings. For a full list of feature IDs, see `feature-id`.

<table>
<thead>
<tr>
<th>Share setting</th>
<th>Feature ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share a computer screen or control of the screen; share a document or white board</td>
<td>fid-meeting-desktop-sharing</td>
</tr>
<tr>
<td>Upload a document to the Share pod</td>
<td>fid-meeting-shared-upload</td>
</tr>
<tr>
<td>Upload and manage files using the File Share pod</td>
<td>fid-meeting-file-share</td>
</tr>
<tr>
<td>Share a white board</td>
<td>fid-meeting-white-board</td>
</tr>
<tr>
<td>Display web pages to attendees</td>
<td>fid-meeting-web-links</td>
</tr>
</tbody>
</table>
Chapter 6: Training

A custom training application or portal can access Adobe® Connect™ Training to display training courses that are available, enroll users or allow them to self-enroll, list all courses and curriculums the user is enrolled in, and generate various reports.

Using web services with Adobe Connect Training

A custom training application or portal can access Adobe® Connect™ Training to display training courses that are available, enroll users or allow them to self-enroll, list all courses and curriculums the user is enrolled in, and generate various reports. Adobe Connect Training has two types of training modules: courses and curriculums.

A course is content (for example, a presentation) that has a set of enrolled learners with usage tracking for each individual. The course can be delivered and administered independently or as part of a curriculum.

A curriculum is a group of courses and other learning content that moves students along a learning path. A curriculum contains primarily Adobe Connect Training courses, but may include other items such as content and meetings. As with courses, you can generate reports to track the progress of enrolled learners as they move through the curriculum. This way, you can ensure that enrollees meet the learning objectives.

Courses and content can both be modules within a curriculum, and a content object can be used in any number of courses and curriculums. In Adobe Connect Training, content objects, courses, and curriculums are all SCOs, and each has a unique sco-id. Content objects and courses are combinable and reusable, according to the SCORM standard.

As you develop training applications, Adobe recommends that you use the following XML API actions:

permissions-update To enroll users in courses and make sure they have the appropriate permissions to access the course.

group-membership-update To add users to groups if you want to enroll a group.

report-my-training To list all courses and curriculums the current user is enrolled in, including the URL to access the course or curriculum.

report-curriculum-taker To get details of a user’s progress within a curriculum.

report-user-trainings-taken To view the latest status of all of a user’s courses and curriculums.

report-user-training-transcripts To list all of a user’s transcripts and scores.

These actions work on courses, curriculums, and training folders and use the permissions allowed for objects in the Training library.

Training library permissions

The Shared Training folder that you see in Adobe Connect Central is also called the Training library. Shared Training is called courses in the response from sco-shortcuts:
Each folder, course, and curriculum in the library is a SCO. As you navigate the Training library, you see the sco-id of the current course or curriculum in the browser URL. You can also retrieve the sco-id by calling sco-contents or sco-expanded-contents on a folder in the Training library.

Each course, curriculum, or content object in the Training library has permissions that define which users can access it. As you design your application, be aware of these permission levels:

**Enrollee permissions** Courses and curriculums have permissions that define which users are enrolled and can access them. The two permissions available are Enrolled and Denied.

**Training library permissions** Courses, curriculums, and folders in the Training library have either Manage or Denied permission. Manage permission means a user can create, delete, edit, or assign permissions. By default, users have Manage permission on their own training folders, and Administrators have Manage permission on any folder in the training library.

An Administrator can assign a user Manage permission on an individual course, curriculum, or folder with permissions-update or check the permissions a user has with permissions-info.

In XML API calls, you read, use, or set values of permission-id as you work with the Training library. These values of permission-id apply to courses and curriculums:

- **view** The user has access to the course or curriculum, and permission is Enrolled.
- **denied** The user is not allowed access, and permission is Denied.

You should also be aware of the permission a user has on a folder before executing an API call. Log in as a user with appropriate permission, or when needed, as your application’s Administrator user. These values of permission-id apply to training folders:

- **manage** The user can add, delete, change, or assign permissions to courses, curriculums, and content in a folder. The user can also list the contents of the folder with sco-contents or sco-expanded-contents.
- **denied** The user cannot add, delete, change, or assign permissions to anything in the folder, but can list the contents of the folder.

**Find courses and curriculums**

Most XML API actions that work with courses and curriculums require the sco-id of the course or curriculum. You often need to locate the sco-id dynamically, before you call another action, without knowing the exact name of the SCO.

Use these best practices to make searching for training SCOs efficient:

- Create specialized folders within the Shared Training folder for storing courses and curriculums. You can do this in Adobe Connect Central, or you can use the XML API, in which the Shared Training folder is named courses.
- Use these folders to store various categories of courses and curriculums, such as Marketing Training or Sales Training.
- Use a flat structure in the specialized folders, storing courses and curriculums one level deep.

This directory structure is also recommended when you want to display a list of all courses and curriculums (or all those in a subject area) and allow users to enroll themselves.
If you are working in Adobe Connect Central, you can find the sco-id of a course or curriculum by navigating to it, clicking its URL, and taking the value of sco-id from the browser URL. You can also locate the sco-id from an application, using the XML API.

Find the sco-id of a course or curriculum

1. Call sco-shortcuts:
   
   https://example.com/api/xml?action=sco-shortcuts

2. Parse the response for the sco-id of the courses folder:
   
   <sco tree-id="624528" sco-id="624528" type="courses">
     <domain-name>http://example.com</domain-name>
   </sco>
   
   You cannot use a filter with sco-shortcuts, but you can parse the response for the sco element that has type=courses.

3. Call sco-contents, passing the sco-id of the courses folder and filtering for your specialized training folders:
   
   https://example.com/api/xml?action=sco-contents&sco-id=624528
   &filter-name=Sales Training
   
   • You can use filter-name, filter-url-path, another exact match filter, or a date filter. However, be careful when using filter-like-name, as it might affect server performance.
   
   • You can also get the sco-id of your specialized training folder from the browser URL in Adobe Connect Central and pass it to sco-contents.

4. Parse the response for the sco-id of your specialized training folder:
   
   <sco sco-id="2007122244" source-sco-id="" folder-id="624528" type="folder" icon="folder" display-seq="0" is-folder="1">

5. Call sco-contents, passing it the sco-id of the specialized training folder and adding a filter that identifies the course or curriculum:
   
   https://example.com/api/xml?action=sco-contents
   &sco-id=2007122244&filter-name=Java 201
   
   • You can call sco-contents, rather than sco-expanded-contents, if all courses and curriculums are stored at the top level of your specialized training folder. This improves performance.
   
   • You can define custom fields for SCOs if it helps you identify them in searches (see “Create custom fields” on page 22).

6. Parse the sco elements in the response for the sco-id of the course or curriculum:
   
   <sco depth="2" sco-id="2006745673" folder-id="2006745671" type="content"
   icon="course" lang="en" source-sco-id="2006744233"
   display-seq="1" source-sco-type="0">
     <name>All About Web Communities</name>
     <url-path>/p33096345/</url-path>
     <description>Web 2.0 course</description>
     <date-created>2006-06-12T14:48:25.870-07:00</date-created>
     <date-modified>2006-06-12T14:48:25.870-07:00</date-modified>
   </sco>
List all courses or curriculums available

1. Get the sco-id of a specialized training folder you have created.

You can also get the sco-id by navigating to the folder in Adobe Connect Central, clicking its URL, and reading the sco-id in the browser URL.

2. Call sco-contents, passing the folder’s sco-id:

   https://example.com/api/xml?action=sco-contents&sco-id=2006258748

   The best practice is to create the specialized training folders one level deep. By doing so, you can call sco-contents rather than sco-expanded-contents. This gives better performance.

3. Parse the response for name, url-path, or any values you want to display:

   <sco sco-id="2007035246" source-sco-id="2006334909"
        folder-id="2006258748" type="content" icon="course"
        display-seq="0" is-folder="0">
     <name>Java 101</name>
     <url-path>/java101/</url-path>
     <date-begin>2006-07-20T17:15:00.000-07:00</date-begin>
     <date-modified>2006-07-20T17:21:38.860-07:00</date-modified>
   </sco>

Create a course

You can use either Adobe Connect Central or Adobe Connect Web Services to create a course. If you use Web Services, first create an empty SCO and then add content to it.

1. Call sco-update to create a new SCO for the course:

   https://example.com/api/xml?action=sco-update&name=salescourse&folder-id=12345&icon=course&type=content

2. Parse the response for the sco-id value of the new course.

3. Add content to the new SCO, using the sco-id returned by sco-update:


4. Enroll users in the course (see Enroll one user and Enroll a large number of users).

View a user’s training

Once a user is logged in, you can list all courses the user is enrolled in with report-my-courses, or all of the user’s courses and curriculums with report-my-training. This lists only the courses (or courses and curriculums) the user is enrolled in, not all courses available.

View a user’s courses and curriculums

1. Log the user in (see Log in from an application).

2. Call report-my-training to list all courses and curriculums the user is enrolled in:

   https://example.com/api/xml?action=report-my-training

3. Parse the response for name, url, or any other values you want to display:
View the status of all of the user's courses and curriculums

1 Get the principal-id of the user (see Find a principal-id).

2 Call report-user-trainings-taken:
   https://example.com/api/xml?action=report-user-trainings-taken
   &principal-id=2006258745

3 Parse the response for status:
   <row transcript-id="2006293632" max-retries="" sco-id="2564016" type="content" icon="course" status="completed"
     certificate="2006293632" score="0" permission-id="" attempts="1">
     <name>Programming in Perl</name>
     <description>Info about Perl</description>
     <url-path>/p57283193/</url-path>
     <date-taken>2006-05-01T17:10:56.400-07:00</date-taken>
     <from-curriculum>false</from-curriculum>
   </row>

A course can have many allowed values for status, but a curriculum can only have a status of completed or incomplete. The allowed values of status are described in status attribute in the reference.

Enroll one user

To give users access to training, Adobe recommends that you enroll them in courses. This gives the users appropriate permission to launch and complete the course, and it gives you usage tracking and access to various report actions.

Courses differ from content. Courses are resumable and offer server-side review mode (for detailed information, see Adobe Connect User Guide).

Your application might allow users to self-enroll in courses, which involves calling permissions-update to enroll one user at a time. You may also want to write a workflow, which is a sequence of API calls, that creates a new user and enrolls the user in a course.

Enrolling users in training using the XML API (specifically, a call to permissions-update) does not send a notification. To send enrollment notifications, use Adobe Connect Central to enroll users.

Enroll one user in a course or curriculum

1 Get the sco-id of the course (see Find courses and curriculums).

2 Get the principal-id of the user (see List principals or guests).
3 To enroll the user in the course, call `permissions-update`. Use the course `sco-id` as the `acl-id`, with a permission-id of `view`:

   https://example.com/api/xml?action=permissions-update
   &acl-id=2007035246&principal-id=2006258745&permission-id=view

4 Call `report-my-training` to list all courses and curriculums the user is enrolled in:

   https://example.com/api/xml?action=report-my-training

5 Parse the `row` elements in the response for values you want to display:

   <row sco-id="2007035246" type="content" icon="course"
      permission-id="view">
      <name>Java 101</name>
      <url>example.com/java101/</url>
      <date-created>2006-07-20T17:11:940-07:00</date-created>
      <date-modified>2006-07-20T17:11:940-07:00</date-modified>
      <date-begin>2006-07-20T17:00:00-07:00</date-begin>
      <url-path>/java101/</url-path>
      <expired>false</expired>
      <completed>false</completed>
   </row>

Enroll a new user by workflow

1 Call `principal-update` to create the new user and send a welcome e-mail:

   https://example.com/api/xml?action=principal-update&first-name=jazz
   &last-name=doe&login=jazz@doe.com&password=hello&type=user
   &send-email=true&has-children=0&email=jazz@doe.com

   To send the e-mail, make sure `send-email=true`.

2 Log the user in to the server:

   https://example.com/api/xml?action=login&login=jazz@doe.com
   &password=hello&session=breezma62or9rdfps8h6a

   See Log in from an application for other ways to call `login`.

3 Call `group-membership-update` with `is-member=true` to add the user to the group:

   https://example.com/api/xml?action=group-membership-update
   &group-id=4930296&principal-id=2006258745&is-member=true

4 Call `permissions-update` to enroll the user in a curriculum:

   https://example.com/api/xml?action=permissions-update
   &acl-id=2006745669&principal-id=2007124930&permission-id=view

   Use a permission-id of `view`.

5 Call `report-my-training` to list courses and curriculums the user is enrolled in:

   https://example.com/api/xml?action=report-my-training

6 Parse the `row` elements in the response for values you want to display:
Enroll a large number of users

When you enroll a large number of users in a course, first decide whether to enroll the users directly or create a group and enroll it. Adobe recommends these best practices for enrolling users in courses:

- Enroll users directly in courses using `permissions-update`, which allows you to enroll 1000, 10,000, or more users with a single API call.
- Add the users to a group and enroll it only if you plan to reuse the group (for example, to enroll it in multiple courses). In this case, you can add only 200 users at a time.

Enroll a large number of users (1000+) directly in a course

1. Get the `sco-id` of the course (see Find courses and curriculums).
2. Get the `principal-id` of each user you want to enroll.
   
   To do this, you can:
   
   - Call `principal-list` with filters to list the users you want to enroll:
     
     https://example.com/api/xml?action=principal-list&filter-type=user
     &filter-type=sales
   
   - Read the values from a file.
3. Write a method that calls `permissions-update` with multiple trios of `acl-id`, `principal-id`, and `permission-id`:
   
   https://example.com/api/xml?action=permissions-update
   &acl-id=2007064258&principal-id=2007105030&permission-id=view&acl-
   id=2007064258&principal-id=2006258745&permission-id=view ...
   
   - The `acl-id` is the `sco-id` of the course.
   - The `permission-id` is `view` to enroll users.
   - The `principal-id` is unique in each trio.

   If any trios have incorrect information, `permissions-update` returns an `ok` status, executes the correct trios, and does not execute the invalid ones.
4. Call `permissions-info` to check that the users have been enrolled:
   
   https://example.com/api/xml?action=permissions-info
   &acl-id=2007064258&filter-permission-id=view

   Without a `principal-id`, this call returns a list of all principals enrolled in the course.
Unenroll a large number of users (1000+) from a course
1 Get the sco-id of the course (see Find courses and curriculums).
2 Get the principal-id of each user you want to remove. You can:
   • Call principal-list with filters to list the users you want to unenroll:
     https://example.com/api/xml?action=principal-list&filter-type=user &filter-account-id=624520
   • Read the values from a file.
3 Write a method that calls permissions-update with multiple trios of acl-id, principal-id, and permission-id:
   https://example.com/api/xml?action=permissions-update &acl-id=2007064258&principal-id=2007105030&permission-id=denied&acl-id=2007064258&principal-id=2006258745&permission-id=denied ...
   The permission-id is denied to unenroll users from the course.
4 Call permissions-info to check that the users have been removed:
   https://example.com/api/xml?action=permissions-info &acl-id=2007064258&filter-permission-id=denied

Enroll a large group (1000+) in a course
1 Create a group.
   With the XML API Call principal-update and parse the response for the principal-id:
     https://example.com/api/xml?action=principal-update&type=group &has-children=1&name=developersc5
   With Adobe Connect Central Create the group at Administration > Users and Groups > New Group. Take the principal-id of the new group from the browser URL.
2 Add the users you want to enroll to the group. You can use an API call or Adobe Connect Central, but you can add only 200 users at a time.
   With the XML API Call group-membership-update, using multiple trios of group-id, principal-id, and is-member=true:
     https://example.com/api/xml?action=group-membership-update &group-id=4930296&principal-id=2006258745&is-member=true &group-id=4930296&principal-id=2007343711&is-member=true
   If any trios have incorrect information, group-membership-update returns an ok status, but the user in the incorrect trio is not added to the group.
   With Adobe Connect Central Navigate to Administration > Users and Groups > Import. You can import users from a CSV (comma-delimited) file with at least a login ID for each user.
3 Get the sco-id of the course (see Find courses and curriculums) using the sco-id of the specialized training folder that contains the course.
4 Call permissions-update to enroll the group in the course:
   https://example.com/api/xml?action=permissions-update &acl-id=2007064258&principal-id=2007105030&permission-id=view

Unenroll a large group (1000+) from a course
1 Call permissions-info on the course, filtering for a permission-id of view:
View curriculum information

As training managers create curriculums and users take courses, you need to retrieve information about them to display in your application. Often you can make just a single call to get the information you need, once you have the sco-id of the curriculum or course and the user's principal-id.

You may, for example, want to display all users enrolled in a curriculum or all courses a curriculum has. Another common task is to display the courses in a curriculum the user has completed so far, and then display the remaining courses.

Display all users enrolled in a course or curriculum

1 Call permissions-info, filtering for a permission-id of view:
   https://example.com/api/xml?action=permissions-info
   &acl-id=2006298444&filter-permission-id=view

   - The acl-id is the sco-id of the course or curriculum.
   - The permission-id of view means the user is enrolled.

2 Parse the response for principal-id, name, and any other values you need:
   <principal principal-id="2006258745" is-primary="false" type="user"
     has-children="false" permission-id="view">
     <name>Joy Smith</name>
     <login>joy@acme.com</login>
   </principal>

Display a list of all training modules in a curriculum

A curriculum is a type of folder, and you can list its contents with sco-contents or sco-expanded-contents.

1 Get the sco-id of the curriculum (see Find courses and curriculums).
2 Call sco-expanded-contents, passing it the sco-id:
   https://example.com/api/xml?action=sco-expanded-contents
   &sco-id=2006745669

3 Parse the response for the sco-id, folder-id, and depth:
The response returns a flat list of sco elements, including the curriculum and each SCO it contains. You can build a hierarchy using the sco-id, folder-id, and depth values. The SCO with type=curriculum is the curriculum that contains the courses.

View a user's completed and remaining work in a curriculum

1. Get the sco-id of the curriculum (see Find courses and curriculums).  
2. Get the principal-id of the user (Find a principal-id).  
3. Call report-curriculum-taker, passing the principal-id as a user-id:  
   https://example.com/api/xml?action=report-curriculum-taker  
   &user-id=2006258745&sco-id=2006745669  
4. Parse the response for the status attribute of each sco element and any other values you want to display in your application:

   • A status of user-passed or completed indicates a module the user has completed.  
   • A status of not-attempted or incomplete shows the user has not completed the module.  
   • The curriculum itself can only have a status of completed or incomplete.

Report scores

Many courses offer learners a certain number of retries. If you use server-side review mode, a training manager can specify the maximum attempts the learner has to complete or pass the course successfully (see Adobe Connect User Guide for details of how course retry works in both server-side and client-side review mode).

This means that a learner can attempt a course multiple times and have multiple scores. In your application, you may want to display only the learner's highest score.
Report a user’s highest score on a course or quiz

1. Get the user’s principal-id (see List principals or guests).
2. Get the sco-id of the course or quiz (see Find courses and curriculums).
3. Call report-user-training-transcripts, filtering on the sco-id and sorting on the score:
   
   https://example.com/api/xml?action=report-user-training-transcripts
   &principal-id=2006258745&filter-sco-id=2006334909&sort-score=desc

4. Parse the response for the highest score, which should be in the first row element in the list:

   <row transcript-id="2006335954" sco-id="2006334909"
   principal-id="2006258745" status="user-passed" score="20"
   max-score="20" certificate="2006335954" type="content"
   icon="producer">
   <name>Java Data Type Quiz</name>
   <url-path>/quiz/</url-path>
   <login>bob@acme.com</login>
   <date-taken>2006-05-12T11:55:24.940-07:00</date-taken>
   <principal-name>Bob Smith</principal-name>
</row>
Chapter 7: Action reference

This section provides a reference for each action in the Adobe® Connect™ Web Services XML API.

All action (XML API), parameter, element, and attribute names are case sensitive. In other words, name is not the same as Name, and sco-id is not equivalent to sco-ID. You must enter them exactly as shown in this reference, unless a specific entry indicates an item is not case sensitive.

What’s new in Adobe Connect 8 Web Services

The following parameters are new in Adobe Connect 8 Web Services:

<table>
<thead>
<tr>
<th>Action</th>
<th>Parameter value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;meeting-feature-update&quot; on page 95</td>
<td>fid-meeting-passcode-notallowed</td>
<td>To disable the ability to passcode protect meeting rooms, call the action and pass this value for the feature-id parameter. For more information, see &quot;Set or reset a meeting passcode&quot; on page 35.</td>
</tr>
<tr>
<td>&quot;acl-field-update&quot; on page 64</td>
<td>meeting-passcode</td>
<td>To set or reset a meeting passcode, call the action and pass this value for the field-id parameter. For more information, see &quot;Set or reset a meeting passcode&quot; on page 35.</td>
</tr>
</tbody>
</table>

Sample action

action name

Availability
The first version of Adobe Connect to support the action. Unless stated, the action is supported in all subsequent versions of Adobe Connect.

Description
A description of what the action does and when to use it.

Request URL
The syntax of an HTTP request URL.

Parameters
A detailed description of the parameters in the request.

Filters
Specifies whether or not results can be filtered or sorted. For more information about filtering and sorting, see "Filter and sort reference" on page 212.

Response structure
The structure of an XML response.
Response values
A detailed description of the XML elements in a response.

Sample request
A sample HTTP request URL.

Sample response
A sample XML response.

See also
Links to related actions.

Actions

account-expiry-info

Availability
Acrobat Connect Pro Server 7

Description
Returns the expiration date of an account.

Request URL
http://server_name/api/xml
   ?action=account-expiry-info
   &account-id=integer
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the account for which you want expiration information. If you</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>don’t provide an account ID, the expiration date for the current user is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>returned.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>client-side cookie management library.</td>
</tr>
</tbody>
</table>

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code="ok"/>
   <Account account-id=integer>
      <name>String</name>
      <date-expired>Datetime</date-expired>
   </Account>
</results>

Last updated 12/16/2010
Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>Account</td>
<td>account-id</td>
<td>Integer</td>
<td>The ID of the account.</td>
</tr>
<tr>
<td></td>
<td>name</td>
<td>String</td>
<td>The name of the account.</td>
</tr>
<tr>
<td></td>
<td>date-expired</td>
<td>Datetime</td>
<td>The date the account expired.</td>
</tr>
</tbody>
</table>

Sample request
https://example.com/api/xml?action=account-expiry-info&account-id=7

Sample response
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok"/>
  <Account account-id="7">
    <name>Enterprise Account</name>
    <date-expired>2009-09-11T18:15:00.000+05:30</date-expired>
  </Account>
</results>
```

See also
expiry-settings-info, expiry-settings-update

**acl-field-info**

**Availability**
Breeze 5

**Description**
Returns information about a principal, account, or SCO, as defined in an access control list (ACL).

The returned information includes fields and their values. Each field has an ID—a name that describes the field.

To call acl-field-info, you must have view permission for the principal, account, or object. You must also specify a value for acl-id, which is the object the principal has access to. The acl-id can be a sco-id, an account-id, or a principal-id. You can call principal-list to determine the account-id or principal-id, or sco-shortcuts or sco-contents to get a sco-id.
Request URL
http://server_name/api/xml
?action=acl-field-info
  &acl-id=integer
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the SCO, account, or principal for which you want field information. Can be a valid sco-id, account-id, or principal-id.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZE_SESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <acl-fields>
    <field acl-id=integer field-id=string>
      <value>string</value>
    </field>
    ...
  </acl-fields>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Container</td>
<td></td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>Empty, with attributes</td>
<td>Allowed value</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td>Code</td>
<td>AllowedValue</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>acl-fields</td>
<td>Container</td>
<td></td>
<td>Information about all fields describing the principal, account, or object.</td>
</tr>
<tr>
<td>field</td>
<td>Container</td>
<td></td>
<td>One field describing the principal, account, or object.</td>
</tr>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td></td>
<td>The acl-id specified in the request, which is a sco-id, principal-id, or account-id.</td>
</tr>
<tr>
<td>field-id</td>
<td>String</td>
<td></td>
<td>The name of the field.</td>
</tr>
<tr>
<td>value</td>
<td>String</td>
<td></td>
<td>The value of the field.</td>
</tr>
</tbody>
</table>

Sample request
https://example.com/api/xml?action=acl-field-info&acl-id=2006258745
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok"/>
  <acl-fields>
    <field acl-id="2006258745" field-id="email">
      <value>joy@acme.com</value>
    </field>
    <field acl-id="2006258745" field-id="first-name">
      <value>Joy</value>
    </field>
    <field acl-id="2006258745" field-id="last-name">
      <value>Smith</value>
    </field>
  </acl-fields>
</results>
```

See also

`acl-field-list, acl-field-update`

**acl-field-list**

**Availability**

Breeze 5

**Description**

Returns a list of values for all instances of a field name on your Adobe Connect Server account.

For example, to list the first names of all users in the account, call `acl-field-list` with `field-id=first-name`.

You can call `acl-field-info` first to get a list of field names.

**Request URL**

```plaintext
http://server_name/api/xml
?action=acl-field-list
&field-id=string
&session=BreezeSessionCookieValue
```

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>field-id</td>
<td>String</td>
<td>Y</td>
<td>The name of a field in the access control list for which you want values and IDs. Only one field name is allowed.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.
Response structure

<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="allowedValue" />  
    <acl-field-list>
        <acl acl-id="integer">
            <value>string</value>
        </acl>
        ...
    </acl-field-list>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>acl-field-list</td>
<td></td>
<td>Container</td>
<td>Information about all of the values in the account for the specified field.</td>
</tr>
<tr>
<td>acl</td>
<td></td>
<td>Container</td>
<td>Information about one value for the specified field.</td>
</tr>
<tr>
<td>acl-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the principal, SCO, or account the field belongs to.</td>
</tr>
<tr>
<td>value</td>
<td></td>
<td>String</td>
<td>The value of the field.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=acl-field-list&field-id=first-name

Sample response

<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok" />  
    <acl-field-list>
        <acl acl-id="381223">
            <value>John</value>
        </acl>
        <acl acl-id="381302">
            <value>Daryl</value>
        </acl>
        <acl acl-id="381405">
            <value>Mary</value>
        </acl>
    </acl-field-list>
</results>

See also

acl-field-info, acl-field-update
acl-field-update

Availability
Breeze 5

Description
Updates the value of an ACL field that belongs to a SCO or an account.

Note: To update a standard field for a principal (a user or a group), use the principal-update action. To update a custom field for a principal, use the acl-field-update action.

Each SCO or account belongs to at least one access control list (ACL). The ACL lists the principals that have permission to access the SCO or account.

Call acl-field-info to determine the fields in the ACL for a SCO or account. The response contains the field-id you need for the request to acl-field-update:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <acl-fields>
    <field acl-id="2006258745" field-id="email">
      <value>joy@acme.com</value>
    </field> ...
  </acl-fields>
</results>
```

You can specify multiple trios of acl-id, field-id, and value. If you do, use an HTTP POST method, rather than a GET, to make the request. The GET method has limitations that might cause the request to be truncated. With a POST, you can add about 50 trios to the request.

To call acl-field-update, you need modify permission on the SCO or account.

Request URL
http://server_name/api/xml
?action=acl-field-update
&acl-id=integer
&field-id=string
&value=string
&session=BreezeSessionCookieValue

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>acl-id</td>
<td>integer</td>
<td>Y</td>
<td>The ID of the SCO or account. Can be a valid sco-id or account-id.</td>
</tr>
<tr>
<td>field-id</td>
<td>string</td>
<td>Y</td>
<td>The name of the field for which you want to update value. The field can be a server-defined field or a custom field. A custom field has a field-id starting with x-, such as x-12056.</td>
</tr>
<tr>
<td>value</td>
<td>string</td>
<td>Y</td>
<td>The value to set.</td>
</tr>
<tr>
<td>session</td>
<td>string</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>
Filters
Results cannot be filtered or sorted.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code=allowedValue />
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request
https://example.com/api/xml?action=acl-field-update&acl-id=2007035246
&field-id=name&value=Java 101

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok" />
</results>

See also
acl-field-list

acl-preference-update

Availability
Breeze 4

Description
Updates a user profile with new language and time zone settings.

Request URL
http://server_name/api/xml
?action=acl-preference-update
&acl-id=integer
&lang=allowedValue
&time-zone-id=allowedValue
&session=BreezeSessionCookieValue
**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the user whose preferences will be updated. Can be a valid principal-id.</td>
</tr>
<tr>
<td>lang</td>
<td>Allowed value</td>
<td>N</td>
<td>An abbreviation for the new language (see lang for valid values).</td>
</tr>
<tr>
<td>time-zone-id</td>
<td>Allowed value</td>
<td>N</td>
<td>An integer setting for the new time zone (see time-zone-id for values).</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.

**Response structure**

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

**Sample request**

&lang=fr&time-zone-id=0

**Sample response**

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

**common-info**

**Availability**

Breeze 4

**Description**

Returns basic information about the current user and the Adobe Connect server or Adobe Connect hosted account, including the value of the BREEZESESSION cookie.

If you call common-info without logging in, the response does not contain user and account elements, because the server cannot identify a user. However, even without logging in, common-info returns a BREEZESESSION cookie value.
The response also contains `host`, `local-host`, and `admin-host` elements. If Adobe Connect is hosted on a cluster, `host` is the cluster name; `local-host` is the name of the server in the cluster that executes the call to `common-info`; and `admin-host` is the name of the secure host on a cluster that supports SSL. Your application can use the value of `admin-host` to convert HTTP URLs to more secure HTTPS URLs.

**Request URL**

http://server_name/api/xml
  ?action=common-info
  &domain=string
  &session=BreezeSessionCookieValue

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>domain</td>
<td>String</td>
<td>N</td>
<td>A domain name identifying a Adobe Connect hosted account. Use to get information about your hosted account.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the <code>BREEZESESSION</code> cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.

**Response structure**

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <common locale=allowedValue time-zone-id=integer>
    <cookie>string</cookie>
    <date>datetime</date>
    <host>url</host>
    <local-host>hostname</local-host>
    <admin-host>hostname</admin-host>
    <url>/api/xml?action=common-info</url>
    <version>string</version>
    <account account-id=integer />
    <user user-id=integer type="user">
      <name>string</name>
      <login>string</login>
    </user>
    <user-agent>string</user-agent>
  </common>
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
</tbody>
</table>
Sample request

https://example.com/api/xml?action=common-info
Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
 
 <status code="ok" />
 
 <common locale="en" time-zone-id="4">
  
  <cookie>breezs14undh5srw2fg6</cookie>
  
  <date>2006-09-08T11:17:04.470-07:00</date>
  
  <host>https:example.com</host>
  
  <local-host>localserver17</local-host>
  
  <admin-host>securehost.com</admin-host>
  
  <url>/api/xml?action=common-info</url>
  
  <version>connect_6000</version>
  
  <account account-id="624520" />
  
  <user user-id="2006258745" type="user">
   
   <name>Joy Smith</name>
   
   <login>joy@acme.com</login>
   
  </user>
  
  <user-agent>Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET CLR 1.1.4322)</user-agent>
 
 </common>
 
</results>

**curriculum-contents**

**Availability**
Connect Pro 7

**Description**
Lists all of the SCOs in a curriculum, including the contents of subfolders.

*Note: To list the contents of a curriculum, use this action instead of sco-expanded-contents*

To find a sco-id to pass in the request URL, call sco-shortcuts. For more information, see “Find SCOs” on page 24.

**Request URL**
http://server_name/api/xml

?action=curriculum-contents
& SCO-id=integer
& session=BreezeSessionCookieValue

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a curriculum.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**
You cannot sort or filter the response to this API call.
Response structure

```
<results>
  <status code=allowedValue/>
  <curriculum-contents>
    <sco depth=integer sco-id=integer folder-id=integer type=allowedValue
      icon=allowedValue lang=allowedValue source-sco-id=integer display-seq=integer
      source-sco-type=integer source-sco-icon=integer content-source-sco-icon=integer>
      <name>string</name>
      <url-path>string</url-path>
      <description>
        string
      </description>
      <date-created>datetime</date-created>
      <date-modified>datetime</date-modified>
    </sco>
    ...more sco elements...
  </curriculum-contents>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>curriculum-contents</td>
<td></td>
<td>Container</td>
<td>The list of all SCOs the curriculum contains.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Details about one SCO. This SCO can be a folder or any other type of object.</td>
</tr>
<tr>
<td>depth</td>
<td></td>
<td>Integer</td>
<td>The depth in the content tree at which this object appears, with top-level objects at 1.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of the SCO. If the SCO is a folder, same as folder-id.</td>
</tr>
<tr>
<td>folder-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the folder the SCO belongs to.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of this content object (see type).</td>
</tr>
<tr>
<td>icon</td>
<td></td>
<td>Allowed value</td>
<td>The name of the icon that visually identifies this object.</td>
</tr>
<tr>
<td>lang</td>
<td></td>
<td>Allowed value</td>
<td>The language in which information about the SCO is displayed (see lang for values).</td>
</tr>
<tr>
<td>source-sco-id</td>
<td></td>
<td>Integer</td>
<td>The ID of a SCO from which this SCO was displayed, such as a meeting template or course content.</td>
</tr>
<tr>
<td>display-seq</td>
<td></td>
<td>Integer</td>
<td>The sequence in which Connect Central (or your application, if you use this value) displays a list of SCOs. Values are not necessarily unique, so multiple SCOs can have the same display-seq value. In that case, the application must define the display sequence. The default is 0.</td>
</tr>
<tr>
<td>source-sco-type</td>
<td></td>
<td>Integer</td>
<td>An integer indicating the type of SCO from which this SCO was created.</td>
</tr>
<tr>
<td>source-sco-icon</td>
<td></td>
<td>Integer</td>
<td>An integer indicating the type of icon from which this icon was created.</td>
</tr>
</tbody>
</table>
Sample request
http://example.com/api/xml?action=curriculum-contents&sco-id=11697&session=breezq7dyhc7m3de8dksr

Sample response
<results>
  <status code="ok"/>
  <curriculum-contents>
    <sco depth="1" sco-id="31949" folder-id="11697" type="link" icon="course" lang="en" source-sco-id="41184" display-seq="0" source-sco-type="0" source-sco-icon="1" content-source-sco-icon="1025">
      <name>FlashBelt09</name>
      <url-path>/l66176109/</url-path>
      <date-created>2009-05-27T03:48:54.277+05:30</date-created>
    </sco>
    <sco depth="0" sco-id="11697" folder-id="41177" type="curriculum" icon="curriculum" lang="en" source-sco-id="" display-seq="0" source-sco-type="" source-sco-icon="" content-source-sco-icon="">
      <name>Backyard Cooking</name>
      <url-path>/cooking/</url-path>
      <description>
        Learn how to cook with things you can find in most urban backyards.
      </description>
      <date-begin>2009-05-27T03:45:00.000+05:30</date-begin>
      <date-created>2009-05-27T03:48:40.383+05:30</date-created>
      <date-modified>2009-05-27T03:48:40.383+05:30</date-modified>
    </sco>
  </curriculum-contents>
</results>

custom-fields

Availability
Breeze 4

Description
Lists all custom fields defined in an account and details about the fields.
Custom fields provide information about objects (SCOs) or principals that is not already defined in Connect Central. You can create custom fields, or update their value, using `custom-field-update`.

**Request URL**

```
http://server_name/api/xml
?action=custom-fields
&filter-definition=value
&session=BreezeSessionCookieValue
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the <code>BREEZESESSION</code> cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

You can filter the response on any element or attribute it contains.

**Response structure**

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <custom-fields>
    <field permission-id=allowedValue object-type=allowedValue
      field-id=string account-id=integer display-seq=integer
      field-type=allowedValue is-primary=boolean is-required=boolean>
      <name>string</name>
    </field>
  </custom-fields>
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
<tr>
<td>custom-fields</td>
<td></td>
<td>Container</td>
<td>The list of custom fields that match the query.</td>
</tr>
<tr>
<td>field</td>
<td></td>
<td>Container</td>
<td>Details about one custom field.</td>
</tr>
<tr>
<td>permission-id</td>
<td></td>
<td>Allowed value</td>
<td>The permission the current user has to access the custom field (see <code>permission-id</code> for values).</td>
</tr>
<tr>
<td>object-type</td>
<td></td>
<td>Allowed value</td>
<td>The type of object the custom field describes (see <code>permission-id</code>).</td>
</tr>
<tr>
<td>field-id</td>
<td></td>
<td>String</td>
<td>The name of the field, as identified on the server.</td>
</tr>
<tr>
<td>account-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the account in which the custom field is defined.</td>
</tr>
</tbody>
</table>
Sample request

https://example.com/api/xml?action=custom-fields&filter-like-name=name

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <custom-fields>
    <field permission-id="manage" object-type="object-type-principal"
            field-id="first-name" account-id="624520" display-seq="1"
            field-type="text" is-primary="true" is-required="true">
      <name>First Name</name>
    </field>
    <field permission-id="manage" object-type="object-type-principal"
            field-id="last-name" account-id="624520" display-seq="2"
            field-type="text" is-primary="true" is-required="true">
      <name>Last Name</name>
    </field>
  </custom-fields>
</results>
```

See also

custom-field-update

custom-fields-delete

Availability

Breeze 4

Description

Deletes a custom field.

The value of is-primary for a custom field must be false before the field can be deleted. If is-primary is true and you want to change its value, call custom-field-update.
Request URL
http://server_name/api/xml
    ?action=custom-fields-delete
    &field-id=string
    &object-type=allowedValue
    &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>field-id</td>
<td>String</td>
<td>Y</td>
<td>The ID of the field to be deleted. Call <code>custom-fields-delete</code> to obtain the ID, which is returned in the field-id attribute of the field element.</td>
</tr>
<tr>
<td>object-type</td>
<td>String</td>
<td>Y</td>
<td>The type of SCO for which the field is defined (for values, see type).</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="allowedValue" />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request
https://example.com/api/xml?action=custom-fields-delete&field-id=2006338719&object-type=object-type-principal

Sample response
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok" />
</results>
```

See also
`custom-field-update`
custom-field-update

Availability
Breeze 4

Description
Creates a new custom field or updates the value of an existing one.

You can define up to eight custom fields on a principal or SCO. To create a custom field, call custom-field-update with at least the following fields: object-type, permission-id, name, field-type, is-required, and is-primary. If custom-field-update is successful, it returns a field-id.

To update a custom field, specify the field-id, an object-type, and a name for each field that has a value you want to change.

Be careful when defining custom fields, as retrieving those fields in a report (for example, by calling report-bulk-users) can affect the performance of the server and the database.

Request URL
http://server_name/api/xml
   ?action=custom-field-update
   &account-id=integer
   &object-type=object-type-allowedValue
   &permission-id=allowedValue
   &name=string
   &comments=string
   &field-type=allowedValue
   &is-required=boolean
   &is-primary=boolean
   &display-seq=integer
   &field-id=integer
   &session=BreezeSessionCookieValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The account ID in which the field is created.</td>
</tr>
<tr>
<td>object-type</td>
<td>String</td>
<td>Y</td>
<td>The type of SCO this field applies to. Required to create and update fields.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Allowed values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• object-type-principal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• object-type-meeting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• object-type-sco</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• object-type-event</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• object-type-read-only</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Example:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>object-type=object-type-principal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The value object-type-read-only means that Connect Central displays the value but a user cannot set it using Connect Central. You can also use this value in custom applications.</td>
</tr>
<tr>
<td>permission-id</td>
<td>String</td>
<td>Y</td>
<td>The permission a principal needs on the object to set or view the field's value. The only allowed value is manage. Required to create a field.</td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td>Y</td>
<td>The label for the field in the user interface. Required to create a field.</td>
</tr>
<tr>
<td>comments</td>
<td>String</td>
<td>N</td>
<td>Any comments you define for the custom field, displayed as hint text in your user interface. Can be up to 60 characters long.</td>
</tr>
<tr>
<td>field-type</td>
<td>String</td>
<td>Y</td>
<td>The type of field. Allowed values are text, textarea, and password. Required to create a field.</td>
</tr>
<tr>
<td>is-required</td>
<td>Boolean</td>
<td>Y</td>
<td>Whether this custom field is required. Use true if a value must be specified for this field in each object that uses it. Otherwise, use false. Required to create a field.</td>
</tr>
<tr>
<td>is-primary</td>
<td>Boolean</td>
<td>Y</td>
<td>Whether this custom field can be deleted through the user interface (true if it cannot be deleted, and false if it can).</td>
</tr>
<tr>
<td>display-seq</td>
<td>Integer</td>
<td>N</td>
<td>The sequence in which Connect Central or your application displays the custom field, relative to other custom fields.</td>
</tr>
<tr>
<td>field-id</td>
<td>Integer</td>
<td>Y</td>
<td>The name of a field that has a value you want to update. Required to update a field.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.
Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <field field-id=integer display-seq=integer object-type=allowedValue
    account-id=integer is-primary=boolean permission-id=allowedValue
    is-required=boolean field-type=string>
    <comments>string</comments>
    <name>string</name>
  </field>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Container</td>
<td>All results the action returns.</td>
<td></td>
</tr>
<tr>
<td>status</td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
<td></td>
</tr>
<tr>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
<td></td>
</tr>
<tr>
<td>field</td>
<td>Empty, with attributes</td>
<td>Information about the custom field.</td>
<td></td>
</tr>
<tr>
<td>field-id</td>
<td>Integer</td>
<td>A numeric identifier for the field.</td>
<td></td>
</tr>
<tr>
<td>display-seq</td>
<td>Integer</td>
<td>The sequence in which Connect Central or your application displays the field.</td>
<td></td>
</tr>
<tr>
<td>object-type</td>
<td>Allowed value</td>
<td>The type of object the field describes (see type for allowed values).</td>
<td></td>
</tr>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>For customers on Adobe Connect hosted accounts, the ID of the account in which the field is defined.</td>
<td></td>
</tr>
<tr>
<td>is-primary</td>
<td>Boolean</td>
<td>Whether this custom field can be deleted (true if no, false if yes).</td>
<td></td>
</tr>
<tr>
<td>permission-id</td>
<td>Allowed value</td>
<td>The permission needed to access the custom field (see permission-id).</td>
<td></td>
</tr>
<tr>
<td>is-required</td>
<td>Boolean</td>
<td>Whether a value for this custom field is required (true if yes and false if no).</td>
<td></td>
</tr>
<tr>
<td>field-type</td>
<td>Allowed value</td>
<td>The type of data the field accepts. Allowed values are text, textarea, and password.</td>
<td></td>
</tr>
<tr>
<td>comments</td>
<td>String</td>
<td>The comment entered in comments in the request.</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td>The name of the field entered in name in the request.</td>
<td></td>
</tr>
</tbody>
</table>

Sample request

```
https://example.com/api/xml?action=custom-field-update
&object-type=object-type-principal&permission-id=manage
&account-id=624520&name=jobtitle&comments=test&field-type=text
&is-required=true&is-primary=false&display-seq=1
```
Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <field field-id="2006472106" object-type="object-type-principal"
    display-seq="1" account-id="624520" is-primary="false"
    permission-id="manage" is-required="true" field-type="text">
    <comments>test</comments>
    <name>jobtitle</name>
  </field>
</results>

See also
report-bulk-users

expiry-settings-info

Availability
Acrobat Connect Pro Server 7

Description
Returns information about the current settings for account-expiration notifications (the warnings given to users
before an account expires). A user is notified x number of days before their account expires. This action simply returns
the value of x.

Request URL
https://example.com/api/xml
  ?action=expiry-settings-info
  &account-id=Integer
  &session=String

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the account. If you don’t provide an account ID, the information for the current account is returned.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <expiry-num-of-days>
    <value>30</value>
  </expiry-num-of-days>
</results>
Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>expiry-num-of-days</td>
<td></td>
<td>Container</td>
<td>Information about the current settings for account-expiration notifications.</td>
</tr>
<tr>
<td>value</td>
<td></td>
<td>Integer</td>
<td>The user is notified this many days before their account expires. The default value is 30. For example, if a user’s account expires on December 31, the user is notified on December 1.</td>
</tr>
</tbody>
</table>

Sample request
https://example.com/api/xml?action=expiry-settings-info&account-id=7

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok"/>
  <expiry-num-of-days>
    <value>30</value>
  </expiry-num-of-days>
</results>
```

See also
expiry-settings-update

**expiry-settings-update**

**Availability**
Acrobat Connect Pro Server 7

**Description**
Updates information about the settings for account-expiration notification (the notification given to users before an account expires). A user is notified $x$ number of days before their account expires. This action simply updates the value of $x$.

**Request URL**
https://example.com/api/xml
  ?action=expiry-settings-update
  &account-id=Integer
  &session=String
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the account. If you don’t provide an account ID, the information for the current account is updated.</td>
</tr>
<tr>
<td>expiry-num-of-days</td>
<td>Integer</td>
<td>Y</td>
<td>A user is notified this many days before their account expires. The default value is 30; possible values are 30, 60, and 90. For example, if the value of this parameter is 30, a user is notified 30 days before their account is due to expire.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREESESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="allowedValue"/>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=expiry-settings-update&account-id=7&expiry-num-of-days=30

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok"/>
</results>
```

See also

account-expiry-info, expiry-settings-info

group-membership-update

Availability

Breeze 4

Description

Adds one or more principals to a group, or removes one or more principals from a group.

To update multiple principals and groups, specify multiple trios of group-id, principal-id, and is-member parameters.
You can obtain a group-id by calling `principal-list` and filtering the response with `filter-type=group` or another filter value such as `filter-type=admins`. The built-in groups have distinctive types other than `group` (see `type` for a list of values).

**Request URL**

```
http://server_name/api/xml
  ?action=group-membership-update
  &group-id=integer
  &principal-id=integer
  &is-member=boolean
  &session=BreezeSessionCookieValue
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>group-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the group in which you want to add or change members.</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the principal whose membership status you want to update. Returned by <code>principal-info</code>.</td>
</tr>
<tr>
<td>is-member</td>
<td>Boolean</td>
<td>Y</td>
<td>Whether the principal is added to (true) or deleted from (false) the group.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the <code>BREEZESESSION</code> cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.

**Response structure**

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="allowedValue" />
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>Top-level element for the response.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
</tbody>
</table>

**Sample request**

```
https://example.com/api/xml?action=group-membership-update&group-id=632398
  &principal-id=2006258745&is-member=true
```

**Sample response**

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```
learning-path-info

Availability
Breeze 5

Description
Returns a list of learning paths for a learning object that belongs to a curriculum.

A learning object is any SCO that has been added to a curriculum. A learning path is determined by rules that establish whether a learner can proceed to the next learning object.

You can create a learning path by establishing prerequisite requirements, completion requirements, or preassessment requirements. For example, a learning path might be the rule that the class Welcome to AcmeCo must be completed before Managing Projects at AcmeCo.

A call to learning-path-info lists modules within a curriculum and their paths to each other. To see the complete contents of a curriculum, including content, meetings, and so on, call sco-expanded-contents.

Request URL
http://server_name/api/xml
?action=learning-path-info
&curriculum-id=integer
&sco-id=integer
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>curriculum-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the curriculum the learning object belongs to.</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the curriculum module (course, presentation, or similar) for which you want a learning path.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.
Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="allowedValue" />
  <learning-paths>
    <learning-path curriculum-id=integer current-sco-id=integer target-sco-id=integer path-type=allowedValue>
      <name>string</name>
    </learning-path>
  </learning-paths>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>learning-paths</td>
<td></td>
<td>Container</td>
<td>Information about learning paths in a curriculum.</td>
</tr>
<tr>
<td>curriculum-id</td>
<td></td>
<td>Integer</td>
<td>The numeric ID of the curriculum.</td>
</tr>
<tr>
<td>current-sco-id</td>
<td></td>
<td>Integer</td>
<td>The learning object for which you want a path.</td>
</tr>
<tr>
<td>target-sco-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the learning object that restricts access to the current learning object (for example, a prerequisite learning object).</td>
</tr>
<tr>
<td>path-type</td>
<td></td>
<td>Allowed value</td>
<td>The type of path between the target and current learning objects (for example, whether completion of the target is required as a prerequisite). See path-type for allowed values.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The name of the target learning object.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=learning-path-info&sco-id=2006334909&curriculum-id=2006298444

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <learning-paths>
    <learning-path curriculum-id="2006298444" current-sco-id="2006298444" target-sco-id="2006298445" path-type="completion-required">
      <name>Security at AcmeCo</name>
    </learning-path>
  </learning-paths>
</results>
```

See also

learning-path-update
learning-path-update

Availability
Breeze 5

Description
Updates the learning path for a single learning object in a curriculum. A learning object is any SCO that is added to a curriculum.

Request URL
http://server_name/api/xml
  ?action=learning-path-update
  &curriculum-id=integer
  &current-sco-id=integer
  &target-sco-id=integer
  &path-type=allowedValue
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>curriculum-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the curriculum to which this learning object belongs.</td>
</tr>
<tr>
<td>current-sco-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the learning object that has the access you want to update.</td>
</tr>
<tr>
<td>target-sco-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the learning object that restricts access to the current learning object (for example, a prerequisite course).</td>
</tr>
<tr>
<td>path-type</td>
<td>Allowed value</td>
<td>Y</td>
<td>The type of path between the target learning object and the current learning object (see path-type for allowed values).</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>Top-level element for the response.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=learning-path-update
&curriculum-id=2006298444&current-sco-id=2007064258
&target-sco-id=2007035246&path-type=completion-required

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok"/>
</results>

See also
learning-path-info

limited-administrator-permissions info

Availability
Acrobat Connect Pro 7

Description
Returns a list of permissions that can be enabled or disabled for the Limited Administrators group and whether or not that permission is currently enabled. For more information on Limited Administrators, see limited-administrator-permissions-update.

Request URL
http://server_name/api/xml
  ?action=limited-administrator-permissions-info
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok"/>
  <permissions>
    <permission>
      <enabled>Boolean</enabled>
      <name>string</name>
    </permission>
  </permissions>
</results>
Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>permissions</td>
<td></td>
<td>Container</td>
<td>A list of permissions.</td>
</tr>
<tr>
<td>permission</td>
<td></td>
<td>Container</td>
<td>A list of information about the permission.</td>
</tr>
<tr>
<td>enabled</td>
<td></td>
<td>Boolean</td>
<td>A value indicating whether the permission is enabled (true) or not (false).</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The name of the permission.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=limited-administrator-permissions-info
&session=breeze6qdeheiso93efb5

Sample response

```xml
<?xml version="1.0" encoding="utf-8"?>
<results>
  <status code="ok"/>
  <permissions>
    <permission>
      <enabled>true</enabled>
      <name>edit-account-info</name>
    </permission>
    <permission>
      <enabled>false</enabled>
      <name>view-disk-usage-and-reports</name>
    </permission>
    <permission>
      <enabled>true</enabled>
      <name>reset-password</name>
    </permission>
    <permission>
      <enabled>true</enabled>
      <name>view-user-data</name>
    </permission>
    <permission>
      <enabled>true</enabled>
      <name>add-users-groups-webui</name>
    </permission>
    <permission>
      <enabled>false</enabled>
      <name>add-users-groups-csv</name>
    </permission>
    <permission>
      <enabled>true</enabled>
      <name>set-content-meeting-permissions</name>
    </permission>
    <permission>
      <enabled>true</enabled>
      <name>user-profile-fields</name>
  </permissions>
</results>
```
limited-administrator-permissions-update

Availability
Acrobat Connect Pro 7

Description
Updates the permissions that can be enabled for Limited Administrators.

With Limited Administrators, your organization can have finer control over administrators and what types of things they can access. Your organization can separate system administrators who control all aspects of the system from Limited Administrators, who can access and control a subset of the system.

Each Adobe Connect installation has one Limited Administrators group. Users in the Administrators group can edit the permissions of Limited Administrators.
Request URL

http://server_name/api/xml
  ?action=limited-administrator-permissions-update
  &view-disk-usage-and-reports=boolean
  &reset-password=boolean
  &view-user-data=boolean
  &add-users-groups-webui=boolean
  &add-users-groups-csv=boolean
  &user-profile-fields=boolean
  &change-login-pw-policy=boolean
  &delete-users-groups=boolean
  &modify-current-users-groups=boolean
  &customization=boolean
  &edit-account-info=boolean
  &set-content-meeting-permissions=boolean
  &compliance=boolean
  &chargebacks=boolean
  &view-training-reports=boolean
  &reset-to-default=value

Parameters

When you use this command, pass at least one parameter. The descriptions that follow indicate if the permission is set to true by default.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>view-disk-usage-and-reports</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to view disk usage and reports. The default value is true.</td>
</tr>
<tr>
<td>reset-password</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to reset the password of a user. Part of the view-user-data set. The default value is true.</td>
</tr>
<tr>
<td>view-user-data</td>
<td>Boolean</td>
<td>N</td>
<td>Superset; a value of true allows limited administrators to view user data. By setting this parameter to enable, you enable all parameters in this set. (See all parameters that are part of the view-user-data set.) The default value is true.</td>
</tr>
<tr>
<td>add-users-groups-webui</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to add users and groups by using the management console. Part of the view-user-data set. The default value is true.</td>
</tr>
<tr>
<td>add-users-groups-csv</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to add users or groups by importing a CSV file. Part of the view-user-data set</td>
</tr>
<tr>
<td>user-profile-fields</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to modify user profile fields.</td>
</tr>
<tr>
<td>change-login-pw-policy</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to change the login and password policies.</td>
</tr>
<tr>
<td>delete-users-groups</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to delete users or groups. Part of the view-user-data set</td>
</tr>
<tr>
<td>modify-current-users-groups</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to modify currents users and groups. Part of the view-user-data set. The default value is true.</td>
</tr>
<tr>
<td>customization</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to customize the colors of the account web pages, meetings, and the login page.</td>
</tr>
<tr>
<td>edit-account-info</td>
<td>Boolean</td>
<td>N</td>
<td>A value of true allows limited administrators to edit account information.</td>
</tr>
</tbody>
</table>

Last updated 12/16/2010
Filters
Results cannot be filtered or sorted.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="allowedValue"/>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request
The example shows
https://admin.ibreeze.macromedia.com/api/xml?action=limited-administrator-permissions-update
&session=breezghd9nxdhh768vpob
&view-user-data=true
&view-user-data=false
&reset-password=true
&reset-password=false
&modify-current-users-groups=true
&modify-current-users-groups=false
&add-users-groups-webui=true
&add-users-groups-webui=false
&add-users-groups-csv=false
&delete-users-groups=false
&user-profile-fields=true
&user-profile-fields=false
&change-login-pw-policy=true
&change-login-pw-policy=false
&chargebacks=false
&edit-account-info=true
&edit-account-info=false
&quota-threshold-notifications=false
&customization=false
&view-disk-usage-and-reports=false
&view-system-usage-reports=false
&compliance=false
&set-content-meeting-permissions=true
&set-content-meeting-permissions=false

Sample response
<?xml version="1.0" encoding="utf-8"?>
<results><status code="ok"/></results>

login

Availability
Breeze 4

Description
Logs a user in to Adobe Connect Server.

In a client application, after logging in a user, you must read and store the cookie called BREEZESESSION, which can be found in the HTTP headers of the response from login. You must then include the value of that cookie in every subsequent request that you make for that user.

If you cannot retrieve cookie values from HTTP response headers, you can call common-info to get the cookie value before the user logs in. Then, pass the value to login using the session request parameter:

https://example.com/api/xml?action=login&login=loginId&password=password
&session=value

You can also use the session parameter on any API call you make after login. For example, to call principal-list after logging in, you can enter:

https://example.com/api/xml?action=principal-list&session=value
The `BREEZESESSION` value is valid for only one login session. Your application must store a new cookie value each time the user logs in.

When you call the `login` action, you are sending a login ID and password across a network, unless you use external authentication. Use SSL or another appropriate security method to protect passwords in transit.

**Request URL**

```
http://server_name/api/xml
?action=login
&login=string
&password=string
&account-id=integer
&external-auth=use
&domain=string
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of your Adobe Connect hosted account. If your organization is running a licensed Adobe Connect Server, do not use <code>account-id</code>.</td>
</tr>
<tr>
<td>external-auth</td>
<td>Allowed value</td>
<td>N</td>
<td>A value indicating whether you send an external network login ID to represent the user to Adobe Connect. If so, use <code>external-auth=use</code>.</td>
</tr>
<tr>
<td>login</td>
<td>String</td>
<td>Y/N</td>
<td>The user’s login name. Do not use if you use external or HTTP header authentication.</td>
</tr>
<tr>
<td>password</td>
<td>String</td>
<td>Y/N</td>
<td>The user’s password. Do not use if you use external or HTTP header authentication.</td>
</tr>
<tr>
<td>domain</td>
<td>String</td>
<td>N</td>
<td>The domain name of your Adobe Connect hosted account. If your organization is running a licensed of Adobe Connect Server, do not use <code>domain</code>.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the <code>BREEZESESSION</code> cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.

**Response structure**

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Container</td>
<td>results</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>Empty, with attributes</td>
<td>status</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td>Allowed value</td>
<td>code</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
</tbody>
</table>
Sample request
http://example.com/api/xml?action=login&login=joy@acme.com&password=happy
&session=breeztg8mz53r93vebwur

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>

See also
logout

logout

Availability
Breeze 4

Description
Ends a user’s login session, invalidating the cookie value associated with the user’s session.

After calling logout, set the BREEZESESSION cookie value to null. Do not reuse the cookie value after your user logs out.

Request URL
http://server_name/api/xml
?action=logout
&session=BreakSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />  
</results>
Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

http://example.com/api/xml?action=logout

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok" />
</results>
```

See also
login

meeting-disclaimer-info

Availability
Acrobat Connect Pro 7

Description
Provides information about the disclaimer text that is shown when a user enters a meeting. For more information about the disclaimer, see meeting-disclaimer-update.

Request URL

https://servername/api/xml
?action=meeting-disclaimer-info
&account-id=integer
&session=string

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the account for which the disclaimer text is retrieved. If not used, the account that you are currently logged in to is updated.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>A string; the value of the BREEZESESSION cookie.</td>
</tr>
</tbody>
</table>

Filters
Filters cannot be used with this action.
Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="allowedValue"/>
    <disclaimer>
        This meeting may be recorded for compliance purpose. By clicking OK you agree to the terms of meeting.
    </disclaimer>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>disclaimer</td>
<td></td>
<td>String</td>
<td>The text of the disclaimer notice.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=meeting-disclaimer-info&amp;account-id=7

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok"/>
    <disclaimer>
        This meeting may be recorded for compliance purpose. By clicking OK you agree to the terms of meeting.
    </disclaimer>
</results>
```

**meeting-disclaimer-update**

**Availability**

Acrobat Connect Pro 7

**Description**

Updates the disclaimer text that is shown when a user enters a meeting.

To comply with communications regulations or standards, you can set up a disclaimer notice to appear when a user enters a meeting. The disclaimer notice typically displays boilerplate information for your organization. It advises users of the status of the meeting and the terms of use for the meeting. For example, a disclaimer notice could advise users that the meeting is being recorded, and that users cannot join the meeting unless they accept the notice.

If the disclaimer is activated, the notice is shown in all meetings. Activate the disclaimer either through the management console or by using the `meeting-feature-update` action with the `fid-meeting-disclaimer` parameter set to `enabled`. 
Request URL
https://servername/api/xml
   ?action=meeting-disclaimer-update
   &account-id=integer
   &disclaimer=string
   &session=string

Parameters

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the account for which the disclaimer text is updated. If not used, the account that you are currently logged into is updated.</td>
</tr>
<tr>
<td>disclaimer</td>
<td>String</td>
<td>Y</td>
<td>The disclaimer text that is shown when a user starts a meeting. The disclaimer can, for example, notify users that a meeting is being recorded. The limit is 1500 characters. The disclaimer text can contain XML-compliant HTML tags. For example: &lt;b&gt;This meeting is being recorded.&lt;/b&gt;</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie.</td>
</tr>
</tbody>
</table>

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="code" />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=meeting-disclaimer-update&disclaimer=Please note that this meeting is being recorded.

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

**meeting-feature-update**

Availability
Acrobat Connect Pro 7
**Description**
Enables or disables features in a meeting. This action is used to manage features such as recording of meetings and control of pods. For more information on usage, see “Configure compliance settings” on page 44. You can append multiple feature-id and enable pairs to the end of the request URL.

**Request URL**
http://server name/api/xml
   ?action=meeting-feature-update
   &account-id=integer
   &feature-id=value
   &enable=value

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of your Adobe Connect hosted account. For enterprise installations, the ID is 7. For licensed installations, use common-info to get the ID.</td>
</tr>
<tr>
<td>feature-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the feature to enable or disable. For available IDs, see feature-id.</td>
</tr>
<tr>
<td>enable</td>
<td>Boolean</td>
<td>Y</td>
<td>Whether to enable the specified feature (true) or not (false).</td>
</tr>
</tbody>
</table>

**Response structure**
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code=code />
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

**Sample request**
The following sample disables the Chat pod.

https://example.com/api/xml?action=meeting-feature-update&account-id=7&feature-id=fid-meeting-chat&enable=false

**Sample response**
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code="ok" />
</results>
```
permissions-info

Availability
Breeze 4

Description
Returns the list of principals (users or groups) who have permissions to act on a SCO, principal, or account.

To call permissions-info, you must specify an acl-id, which is the ID of a SCO, principal, or account that can be acted on. ACL stands for access control list, and means the list of entities who have permission.

With just an acl-id, permissions-info returns a list of all principals in the account, showing each principal’s permission on the principal or SCO specified in the acl-id:

https://example.com/api/xml?action=permissions-info&acl-id=2006258745

To check the permissions a specific principal has on a principal or SCO within an account, call permissions-info with an acl-id and a filter on principal-id:

http://example.com/api/xml?action=permissions-info&acl-id=7&filter-principal-id=10022

To check the permissions a principal has on an account, call permissions-info with both an acl-id (specifying an account-id) and a principal-id:

https://example.com/api/xml?action=permissions-info&acl-id=624520&principal-id=624523

Request URL
http://server_name/api/xml
 ?action=permissions-info
 &acl-id=integer
 &principal-id=integer
 &filter-definition=value
 &sort-definition=value
 &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a SCO, account, or principal that a principal has permission to act on. The acl-id is a sco-id, principal-id, or account-id in other calls.</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of a principal who has a permission (even if denied) to act on an object.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.
Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code=allowedValue />
    <permissions>
        <principal principal-id=integer is-primary=boolean type=allowedValue
                     has-children=boolean permission-id=integer training-group-id=integer>
            <name>string</name>
            <login>string</login>
        </principal>
    </permissions>
    ...
    <permission acl-id=integer permission-id=allowedValue
                principal-id=integer />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>permissions</td>
<td></td>
<td>Container</td>
<td>A list of principals showing their permission to access the SCO, account, or principal.</td>
</tr>
<tr>
<td>principal</td>
<td></td>
<td>Container</td>
<td>Information about one principal showing the principal’s permission level on the SCO, account, or principal.</td>
</tr>
<tr>
<td>principal-id</td>
<td></td>
<td>Integer</td>
<td>The ID of a principal who has permission on a SCO, account, or principal.</td>
</tr>
<tr>
<td>is-primary</td>
<td></td>
<td>Boolean</td>
<td>A value indicating whether the principal is a primary group (same as a built-in group).</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of principal (see type for allowed values).</td>
</tr>
<tr>
<td>has-children</td>
<td></td>
<td>Boolean</td>
<td>A value indicating whether the principal has children. Groups have children and users don’t, so if true, the principal is a group.</td>
</tr>
<tr>
<td>permission-id</td>
<td></td>
<td>Allowed value</td>
<td>The permission the principal has on the SCO, account, or principal (see permission-id for values).</td>
</tr>
<tr>
<td>acl-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the SCO on which the permission is defined.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The name of the principal who has permission to access the SCO.</td>
</tr>
<tr>
<td>login</td>
<td></td>
<td>String</td>
<td>The login name of the principal who has permission to access the SCO.</td>
</tr>
<tr>
<td>permission</td>
<td></td>
<td>Empty, with attributes</td>
<td>Information about the permission one principal has on a SCO, account, or principal. If empty, no permission is defined.</td>
</tr>
<tr>
<td>acl-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the object on which the principal has permission.</td>
</tr>
<tr>
<td>permission-id</td>
<td></td>
<td>Allowed value</td>
<td>The permission the principal has to act on the object (see permission-id for values).</td>
</tr>
<tr>
<td>principal-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the principal who has permission to act on the object.</td>
</tr>
<tr>
<td>training-group-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the training group.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=permissions-info&acl-id=2006334033

Sample response
<?xml version="1.0" encoding="utf-8" ?
 <results>
  <status code="ok" />
  <permissions>
   <principal principal-id="2006258745" is-primary="false" type="user"
    has-children="false" permission-id="host" training-group-id="2007842424">
    <name>Joy Smith</name>
    <login>joy@acme.com</login>
   </principal>
   ...
  </permissions>
 </results>

See also
permissions-reset, permissions-update

permissions-reset

Availability
Breeze 4

Description
Resets all permissions any principals have on a SCO to the permissions of its parent SCO. If the parent has no permissions set, the child SCO will also have no permissions.

Request URL
http://server_name/api/xml
   ?action=permissions-reset
   &acl-id=integer
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a SCO that has permissions you want to reset.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure
<?xml version="1.0" encoding="utf-8" ?
 <results>
  <status code="ok" />
 </results>
Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=permissions-reset&acl-id=2006334033

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />  
</results>
```

See also

permissions-info, permissions-update

permissions-update

Availability

Breeze 4

Description

Updates the permissions a principal has to access a SCO, using a trio of principal-id, acl-id, and permission-id. To update permissions for multiple principals or objects, specify multiple trios. You can update more than 200 permissions in a single call to permissions-update.

Call permissions-update to give a user access to a Adobe Connect meeting, course, curriculum, or other SCO. For example, you can use permissions-update to:

- Invite a user to a meeting as participant, presenter, or host (with a permission-id of view, mini-host, or host, respectively)
- Remove a user’s participant, presenter, or host access to a meeting (with a permission-id of remove)
- Enroll users in courses (with a permission-id of view)

If you use multiple trios and any of them have invalid information (for example, an incorrect acl-id or principal-id), permissions-update returns an ok status, the correct trios execute, and the invalid ones do not.

Request URL

http://server_name/api/xml
?action=permissions-update
&acl-id=integer
&principal-id=integer
&permission-id=allowedValue
&session=BreezeSessionCookieValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a SCO (a sco-id) for which you want to update permissions.</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a principal, either a user or group.</td>
</tr>
<tr>
<td>permission-id</td>
<td>String</td>
<td>Y</td>
<td>The permission to assign (see permission-id for values).</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=code />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=permissions-update&acl-id=2006334033
&principal-id=2006258745&permission-id=host

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

See also
permissions-info, permissions-reset

**principal-info**

**Availability**
Breeze 4

**Description**
Provides information about one principal, either a user or a group.
You must specify a `principal-id`. To find the `principal-id`, call `principal-list`, using a filter if necessary to limit the response.

**Request URL**

`http://server_name/api/xml?action=principal-info&principal-id=integer&session=BreezeSessionCookieValue`

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a user or group you want information about. You can get the ID by calling <code>principal-list</code>.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.
Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <contact>
    <email>string</email>
    <first-name>string</first-name>
    <last-name>string</last-name>
  </contact>
  <manager account-id=integer disabled=boolean has-children=boolean
           is-hidden=boolean is-primary=boolean principal-id=integer
           type=allowedValue>
    <ext-login>string</ext-login>
    <login>string</login>
    <name>string</name>
    <email>string</email>
    <first-name>string</first-name>
    <last-name>string</last-name>
    <x-customfield1>string</x-customfield1>
    <x-customfield2>string</x-customfield2>
    ...
  </manager>
  <preferences acl-id=integer lang=allowedValue
             time-zone-id=allowedValue />
  <principal account-id=integer disabled=boolean has-children=boolean
             is-hidden=boolean is-primary=boolean principal-id=integer
             type=allowedValue>
    <description>string</description>
    <ext-login>string</ext-login>
    <login>string</login>
    <name>string</name>
    <email>string</email>
    <first-name>string</first-name>
    <last-name>string</last-name>
    <x-customfield1>string</x-customfield1>
    <x-customfield2>string</x-customfield2>
    ...
  </principal>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>Top-level element for the response.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>contact</td>
<td></td>
<td>Container</td>
<td>Information about the contact person for a principal. If the principal is a user, usually the same as information in principal.</td>
</tr>
<tr>
<td>email</td>
<td></td>
<td>String</td>
<td>The e-mail address of the contact person.</td>
</tr>
<tr>
<td>first-name</td>
<td></td>
<td>String</td>
<td>The first name of the contact person.</td>
</tr>
<tr>
<td>last-name</td>
<td></td>
<td>String</td>
<td>The last name of the contact person.</td>
</tr>
<tr>
<td>Element</td>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
<td>------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>manager</td>
<td></td>
<td>Container</td>
<td>Information describing a user's manager, who is also a principal.</td>
</tr>
<tr>
<td>principal</td>
<td></td>
<td>Container</td>
<td>Information describing the principal.</td>
</tr>
<tr>
<td></td>
<td>account-id</td>
<td>Integer</td>
<td>The ID of the account the principal belongs to.</td>
</tr>
<tr>
<td></td>
<td>disabled</td>
<td>Datetime</td>
<td>If the principal's account is valid, a null value returned as &quot;&quot;. If the account is disabled, the date it was disabled.</td>
</tr>
<tr>
<td></td>
<td>has-children</td>
<td>Boolean</td>
<td>Whether the principal has children. Groups have children and users don't, so this attribute indicates whether the principal is a group.</td>
</tr>
<tr>
<td></td>
<td>is-hidden</td>
<td>Boolean</td>
<td>Whether the principal is hidden (true) or not (false) in Connect Central or your application.</td>
</tr>
<tr>
<td></td>
<td>is-primary</td>
<td>Boolean</td>
<td>Whether the principal is a built-in group (true) or not (false).</td>
</tr>
<tr>
<td></td>
<td>principal-id</td>
<td>Integer</td>
<td>The ID of the principal.</td>
</tr>
<tr>
<td></td>
<td>type</td>
<td>Allowed value</td>
<td>The type of principal (see type for values).</td>
</tr>
<tr>
<td>description</td>
<td></td>
<td>String</td>
<td>For a group, the group name.</td>
</tr>
<tr>
<td>ext-login</td>
<td></td>
<td>String</td>
<td>For a user, the login ID sent from an external network. By default, the same value as login, so change it if you use external authentication.</td>
</tr>
<tr>
<td>login</td>
<td></td>
<td>String</td>
<td>The principal's login ID on Adobe Connect. Can be the same as an e-mail address.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>For a user, the full name, concatenated from first-name and last-name.</td>
</tr>
<tr>
<td>email</td>
<td></td>
<td>String</td>
<td>For a user, the e-mail address.</td>
</tr>
<tr>
<td>first-name</td>
<td></td>
<td>String</td>
<td>For a user, the first name.</td>
</tr>
<tr>
<td>last-name</td>
<td></td>
<td>String</td>
<td>For a user, the last name.</td>
</tr>
<tr>
<td>x-customfield</td>
<td></td>
<td>String</td>
<td>A custom field defined for the user or group.</td>
</tr>
<tr>
<td>preferences</td>
<td></td>
<td>Empty, with attributes</td>
<td>Information about the principal's preferences.</td>
</tr>
<tr>
<td>acl-id</td>
<td></td>
<td>Integer</td>
<td>The principal's ID.</td>
</tr>
<tr>
<td>lang</td>
<td></td>
<td>Allowed value</td>
<td>The language setting the principal has chosen for Adobe Connect applications.</td>
</tr>
<tr>
<td>time-zone-id</td>
<td></td>
<td>Allowed value</td>
<td>The time zone setting the principal has chosen for Adobe Connect applications.</td>
</tr>
</tbody>
</table>

Sample request
https://example.com/api/xml?action=principal-info&principal-id=2006258745
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />  
  <contact>
    <email>bob@acme.com</email>
    <first-name>Bob</first-name>
    <last-name>Jones</last-name>
  </contact>
  <manager account-id="624520" disabled="" has-children="false"
    is-hidden="false" is-primary="false" principal-id="2006282569"
    type="user">
    <ext-login>jazzdoe@example.com</ext-login>
    <login>jazzdoe@example.com</login>
    <name>jazz doe</name>
    <email>jazzdoe@example.com</email>
    <first-name>Jazz</first-name>
    <last-name>Doe</last-name>
    <x-2007017651>San Francisco</x-2007017651>
  </manager>
  <preferences acl-id="2006258745" lang="en" time-zone-id="4" />
  <principal account-id="624520" disabled="" has-children="false"
    is-hidden="false" is-primary="false" principal-id="2006258745"
    type="user">
    <ext-login>joy@acme.com</ext-login>
    <login>joy@acme.com</login>
    <name>Joy Smith</name>
    <email>joy@acme.com</email>
    <first-name>Joy</first-name>
    <last-name>Smith</last-name>
    <x-2007017651>San Francisco</x-2007017651>
  </principal>
</results>

See also
principal-list, principal-list-by-field, principal-update

principal-list

Availability
Breeze 4

Description
Provides a complete list of users and groups, including primary groups.

This call is useful for getting a principal-id when you don’t have one. However, be aware that it returns a list of all principals on your Adobe Connect Server or Adobe Connect hosted account, unless you use a filter to limit the response.

You can also use principal-list to get a list of groups in an account by filtering on the type and is-member fields:

https://example.com/api/xml?action=principal-list&filter-type=group
&filter-is-member=true

Last updated 12/16/2010
However, filter-type=group returns groups you have created, not built-in groups predefined on the server. Built-in groups have type values other than group, such as admins and authors (see type for a list of the values).

You can filter the response with a filter-type parameter set to the type of group you want, then parse the response for a principal-id, then pass the principal-id as a group-id on another request to principal-list.

**Request URL**

http://server_name/api/xml
?action=principal-list
&group-id=integer
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>group-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of a group. Same as the principal-id of a principal that has a type value of group.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

You can filter or sort the response on any element or attribute it contains.

**Note:** Filtering on the login element is useful but slow, and reduced performance is unavoidable.

You can also filter on a special field name, manager-id, to return a list of principals who report to a given manager, for example:

https://example.com/api/xml?action=principal-list
&filter-manager-id=2006282569

When you use filter-manager-id, each principal element in the response has a manager-id attribute:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <principal-list>
    <principal principal-id="2006258745" account-id="624520" type="user"
      has-children="false" is-primary="false" is-hidden="false"
      manager-id="2006282569">
      <name>Pat Lee</name>
      <login>plee@mycompany.com</login>
      <email>plee@mycompany.com</email>
    </principal>
  </principal-list>
</results>
```
**Response structure**

```xml
<results>
  <status code=allowedValue />
  <principal-list>
    <principal principal-id=integer account-id=integer type=allowedValue
      has-children=boolean is-primary=boolean is-hidden=boolean
      manager-id=integer training-group-id=integer>
      <name>string</name>
      <login>string</login>
      <email>string</email>
    </principal>
  </principal-list>
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>principal-list</td>
<td>principal-list</td>
<td>Container</td>
<td>The entire list of principals.</td>
</tr>
<tr>
<td>principal</td>
<td>principal</td>
<td>Container</td>
<td>Details about one principal.</td>
</tr>
<tr>
<td>principal-id</td>
<td>principal-id</td>
<td>Integer</td>
<td>The ID of the principal.</td>
</tr>
<tr>
<td>account-id</td>
<td>account-id</td>
<td>Integer</td>
<td>The ID of the account the principal belongs to.</td>
</tr>
<tr>
<td>type</td>
<td>type</td>
<td>Allowed value</td>
<td>The type of principal (see type for values).</td>
</tr>
<tr>
<td>has-children</td>
<td>has-children</td>
<td>Boolean</td>
<td>Indicates whether the principal has children. Groups have children and users do not, so when has-children is true, the principal is a group.</td>
</tr>
<tr>
<td>is-primary</td>
<td>is-primary</td>
<td>Boolean</td>
<td>Whether the principal is a built-in group (true) or not (false).</td>
</tr>
<tr>
<td>is-hidden</td>
<td>is-hidden</td>
<td>Boolean</td>
<td>Whether Connect Central or your application displays the principal (true for not displayed and false for displayed).</td>
</tr>
<tr>
<td>manager-id</td>
<td>manager-id</td>
<td>Integer</td>
<td>The principal-id of the manager the principal reports to. Returned only if you use filter-manager-id in the request.</td>
</tr>
<tr>
<td>training-group-id</td>
<td>training-group-id</td>
<td>Integer</td>
<td>The ID of the training group.</td>
</tr>
<tr>
<td>name</td>
<td>name</td>
<td>String</td>
<td>The principal’s full name.</td>
</tr>
<tr>
<td>login</td>
<td>login</td>
<td>String</td>
<td>The principal’s login ID, often an e-mail address.</td>
</tr>
<tr>
<td>email</td>
<td>email</td>
<td>String</td>
<td>The principal’s e-mail address.</td>
</tr>
<tr>
<td>principal-custom-field-values</td>
<td>principal-custom-field-values</td>
<td>Container</td>
<td>The entire list of custom field values defined for the principal.</td>
</tr>
<tr>
<td>field</td>
<td>field</td>
<td>Container</td>
<td>Details about one custom field defined for the principal (see field for contents).</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=principal-list

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <principal-list>
    <principal principal-id="624526" account-id="624520" type="user"
      has-children="false" is-primary="false" is-hidden="false" training-group-
      id="">
      <name>ned mack</name>
      <login>nmack@acme.com</login>
      <email>nmack@acme.com</email>
    </principal>
    <principal principal-id="624550" account-id="624520" type="user"
      has-children="false" is-primary="false" is-hidden="false" training-group-
      id="">
      <name>amelie jones</name>
      <login>amelie@example.com</login>
      <email>amelie@example.com</email>
    </principal>
    ...
  </principal-list>
</results>

See also
principal-info, principal-update, principal-list-by-field

principal-list-by-field

Availability
Breeze 5

Description
Lists principals that have a specified value in a custom field. Use this action to query custom fields for principals. Use principal-list to get a list of custom fields that are defined for the principal.

In the value parameter, enter the value of a custom database field. The name element returned by principal-list, for example, is a full name concatenated from the first-name (bob) and last-name (jones) database fields. If you search on bob jones, principal-list-by-field does not return a value, unless the full name is defined as a database field (in this case, a custom field defined on principals).

The search is case insensitive, and the query string can contain spaces.

Wildcards are not allowed in the query string. For example, if you enter t*, principal-list-by-field searches for the exact string t*.

The principal-list-by-field action searches in all custom database fields defined for the principal; it does not search principal fields.
Request URL
http://server_name/api/xml
  ?action=principal-list-by-field
  &value=string
  &filter-definition=value
  &sort-definition=value
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>value</td>
<td>String</td>
<td>Y</td>
<td>The value for which you want to search all fields. You do not need to enter a field name.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <principal-list>
    <principal account-id=integer principal-id=integer type=allowedValue
                    has-children=boolean is-primary=boolean is-hidden=boolean>
      <name>string</name>
      <login>string</login>
    </principal>
  </principal-list>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>principal-list</td>
<td></td>
<td>Container</td>
<td>The entire list of principals that match the value in one or more custom fields.</td>
</tr>
<tr>
<td>principal</td>
<td></td>
<td>Container</td>
<td>One principal that matches the value.</td>
</tr>
<tr>
<td>principal-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the principal.</td>
</tr>
<tr>
<td>account-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the account the principal belongs to.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of principal (see type for values).</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=principal-list-by-field&value=inactive

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <principal-list>
    <principal account-id="624520" principal-id="2616099" type="user" has-children="false" is-primary="false" is-hidden="false">
      <name>Bob Jones</name>
      <login>bjones@acme.com</login>
    </principal>
  </principal-list>
</results>

See also
principal-info, principal-list, principal-update

principals-delete

Availability
Breeze 4

Description
Removes one or more principals, either users or groups. To delete principals, you must have Administrator privilege.

To delete multiple principals, specify multiple principal-id parameters. All of the principals you specify will be deleted.

The principal-id can identify either a user or group. If you specify a user, the user is removed from any groups the user belongs to. If you specify a group, the group is deleted, but the users who belong to it are not.

Request URL
http://server_name/api/xml
?action=principals-delete
&principal-id=integer
&session=BreezeSessionCookieValue

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>has-children</td>
<td>Boolean</td>
<td></td>
<td>Indicates whether the principal has children. Groups have children and users don’t, so this attribute indicates whether the principal is a group.</td>
</tr>
<tr>
<td>is-primary</td>
<td>Boolean</td>
<td></td>
<td>Whether the principal is a built-in group (true) or not (false).</td>
</tr>
<tr>
<td>is-hidden</td>
<td>Boolean</td>
<td></td>
<td>Whether the principal is hidden in the user interface (true) or not (false).</td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td></td>
<td>The principal's full name, concatenated from the first-name and last-name fields.</td>
</tr>
<tr>
<td>login</td>
<td>String</td>
<td></td>
<td>The principal's login ID, often an e-mail address.</td>
</tr>
</tbody>
</table>
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a user or group you want to delete.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

Results cannot be filtered or sorted.

Response structure

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="allowedValue" />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>code</td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=principals-delete
&principal-id=2006393111&principal-id=200639323

Sample response

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

See also

`principal-info, principal-list, principal-list-by-field, principal-update`

**principal-update**

Availability

Breeze 4

Description

Creates a principal (a user or group) or updates a standard field for a principal. The principal is created or updated in the same account as the user making the call.

To create a new principal, call `principal-update` without specifying a `principal-id`. To update, add the `principal-id`. Before you update metadata about a principal, call `principal-info` to get the existing version.

If a principal has custom fields, use `acl-field-update` to update them, rather than `principal-update`. 
You need Administrator privileges to create or update a principal.

**Request URL**
http://server_name/api/xml
?action=principal-update
&description=string
&email=string
&first-name=string
&has-children=boolean
&last-name=string
&login=string
&name=string
&password=string
&principal-id=integer
&send-email=boolean
&type=allowedValue
&session=BreezeSessionCookieValue

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>description</td>
<td>String</td>
<td>N</td>
<td>The new group's description. Use only when creating a new group.</td>
</tr>
<tr>
<td>email</td>
<td>String</td>
<td>N</td>
<td>The user's e-mail address. Can be different from the login. Be sure to specify a value if you use send-email=true.</td>
</tr>
<tr>
<td>first-name</td>
<td>String</td>
<td>Y/N</td>
<td>The user's new first name. Use only with users, not with groups. Required to create a user.</td>
</tr>
<tr>
<td>has-children</td>
<td>Boolean</td>
<td>Y</td>
<td>Whether the principal has children. If the principal is a group, use 1 or true. If the principal is a user, use 0 or false.</td>
</tr>
<tr>
<td>last-name</td>
<td>String</td>
<td>Y/N</td>
<td>The new last name to assign to the user. Required to create a user. Do not use with groups.</td>
</tr>
<tr>
<td>login</td>
<td>String</td>
<td>Y/N</td>
<td>The principal's new login name, usually the principal's e-mail address. Must be unique on the server. Required to create or update a user. Do not use with groups.</td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td>Y/N</td>
<td>The new group's name. Use only when creating a new group. Required to create a group.</td>
</tr>
<tr>
<td>password</td>
<td>String</td>
<td>N</td>
<td>The new user's password. Use only when creating a new user.</td>
</tr>
<tr>
<td>principal-id</td>
<td>String</td>
<td>Y/N</td>
<td>The ID of the principal that has information you want to update. Required to update a user or group, but do not use to create either.</td>
</tr>
<tr>
<td>send-email</td>
<td>Boolean</td>
<td>N</td>
<td>A flag indicating whether the server should send an e-mail to the principal with account and login information.</td>
</tr>
<tr>
<td>type</td>
<td>String</td>
<td>Y/N</td>
<td>The type of principal. Use only when creating a new principal (see type for values).</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.
Response structure

```xml
<?xml version="1.0" encoding="utf-8"?>
<results>
  <status code="allowedValue" />
  <principal principal-id="integer" account-id="integer"
             has-children="integer" type="integer">
    <login>string</login>
    <ext-login>string</ext-login>
    <name>string</name>
  </principal>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
<tr>
<td>principal</td>
<td></td>
<td>Container</td>
<td>Information about the newly created principal.</td>
</tr>
<tr>
<td></td>
<td>principal-id</td>
<td>Integer</td>
<td>The ID of the newly created user.</td>
</tr>
<tr>
<td></td>
<td>account-id</td>
<td>Integer</td>
<td>The ID of the account the new user belongs to. Same as the account of the current user.</td>
</tr>
<tr>
<td></td>
<td>has-children</td>
<td>Boolean</td>
<td>Whether the principal has children, which indicates whether the principal is a user or group (1 if a group, or 0 if a user).</td>
</tr>
<tr>
<td></td>
<td>type</td>
<td>Allowed value</td>
<td>The type of principal (see <code>type</code> for values).</td>
</tr>
<tr>
<td>login</td>
<td></td>
<td>String</td>
<td>The principal's login ID, often an e-mail address.</td>
</tr>
<tr>
<td>ext-login</td>
<td></td>
<td>String</td>
<td>The principal's external authentication ID. By default, the value is the same as login, unless you explicitly set the value to an authentication ID from your network.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The principal’s name. If the principal is a user, concatenated from the <code>first-name</code> and <code>last-name</code> parameters in the request.</td>
</tr>
</tbody>
</table>

Sample request

```plaintext```
https://example.com/api/xml?action=principal-update&first-name=jake
&last-name=doe&has-children=0&login=jakedoe@example.com&type=user
```

Sample response

```xml
<?xml version="1.0" encoding="utf-8"?>
<results>
  <status code="ok" />
  <principal principal-id="2006403978" account-id="624520" type="user"
             has-children="0">
    <login>jakedoe@example.com</login>
    <ext-login>jakedoe@example.com</ext-login>
    <name>jake doe</name>
  </principal>
</results>
```
See also
principal-info, principal-list, principal-list-by-field, acl-field-update

**quota-threshold-info**

**Availability**
Acrobat Connect Pro 7

**Description**
Provides the list of quotas for which capacity notifications are provided, along with their current threshold settings.

Each Adobe Connect account has system quotas that determine, for example, how many seats are available for Meeting Hosts, Learners, and so on. Each quota has a threshold; when the threshold is crossed, the system notifies administrators that the quota is in danger of being reached. The settings for the threshold and the notifications vary depending on the quota.

**Request URL**
https://example.com/api/xml
   ?action=quota-threshold-info
   &account-id=integer
   &session=integer

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the account for which you want quota threshold information. If you don't specify an ID, the current account to which the user is logged in is used.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Response structure**
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code=allowedValue />
   <Principals>
      <Principal principal-id="integer" type="string"/>
   </Principals>
   <Quotas>
      <Quota acl-id="integer" quota-id="string" threshold-pct="integer" login-notif="boolean" email-notif="boolean" monthly-emails="boolean" limit="integer" used="integer"/>
      <Quota acl-id="integer" quota-id="string" threshold-pct="integer" login-notif="boolean" email-notif="boolean" monthly-emails="boolean" limit="integer" used="integer"/>
   </Quotas>
   <Trees>
      <Tree tree-id="integer" type="string"/>
   </Trees>
</results>
```
Using Adobe Connect 8 Web Services

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Container</td>
<td></td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>Empty, with attributes</td>
<td>Allowed value</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>A code indicating the response status (see status).</td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>Container</td>
<td></td>
<td>Lists the principals specifying the groups for which system capacity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>notifications are provided.</td>
</tr>
<tr>
<td>Principal</td>
<td>Container</td>
<td></td>
<td>Information about the principal for which system capacity notification</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>is provided.</td>
</tr>
<tr>
<td></td>
<td>principal-id</td>
<td>Integer</td>
<td>The principal ID specifying the group.</td>
</tr>
<tr>
<td></td>
<td>type</td>
<td>String</td>
<td>The group type. Depending on the license, this value can be one of the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• authors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• live-admins, which specifies that the group is Meeting Hosts</td>
</tr>
<tr>
<td>Quotas</td>
<td>Container</td>
<td></td>
<td>Lists the quotas.</td>
</tr>
<tr>
<td>Quota</td>
<td>Container</td>
<td></td>
<td>Information about the quota and its settings.</td>
</tr>
<tr>
<td></td>
<td>acl-id</td>
<td>Integer</td>
<td>ACL ID of the quota.</td>
</tr>
<tr>
<td></td>
<td>quota-id</td>
<td>Integer</td>
<td>The ID of the quota. For possible values, see quota-ID.</td>
</tr>
<tr>
<td></td>
<td>threshold-pct</td>
<td>Integer</td>
<td>The percent value of the threshold.</td>
</tr>
<tr>
<td></td>
<td>login-notif</td>
<td>Boolean</td>
<td>Whether administrators are notified upon logging in that a threshold is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>exceeded (true) or not (false).</td>
</tr>
<tr>
<td></td>
<td>email-notif</td>
<td>Boolean</td>
<td>Whether administrators are notified through e-mail that a threshold is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>exceeded (true) or not (false).</td>
</tr>
<tr>
<td></td>
<td>monthly-emails</td>
<td>Boolean</td>
<td>Whether administrators are sent monthly threshold reports through e-mail</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(true) or not (false).</td>
</tr>
<tr>
<td></td>
<td>limit</td>
<td>Integer</td>
<td>The limit of member seats.</td>
</tr>
<tr>
<td></td>
<td>used</td>
<td>Integer</td>
<td>Number of member seats used.</td>
</tr>
<tr>
<td>Trees</td>
<td>Container</td>
<td></td>
<td>Provides information about the tree type quotas (the quota for the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>number of concurrent users per meeting).</td>
</tr>
<tr>
<td>Tree</td>
<td>Container</td>
<td></td>
<td>Information about the tree.</td>
</tr>
<tr>
<td></td>
<td>tree-id</td>
<td>Integer</td>
<td>The tree ID.</td>
</tr>
<tr>
<td></td>
<td>type</td>
<td>String</td>
<td>The tree type, which is one of the following values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• meetings</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• user-meetings</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=quota-threshold-info&account-id=7

Last updated 12/16/2010
Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok"/>
    <Principals>
        <Principal principal-id="20013" type="authors"/>
        <Principal principal-id="10051" type="live-admins"/>
    </Principals>
    <Quotas>
        <Quota acl-id="7" quota-id="training-user" threshold-pct="90" login-notif="true" email-notif="true" monthly-emails="true" limit="10" used="0"/>
        <Quota acl-id="20013" quota-id="num-of-members-quota" threshold-pct="10" login-notif="true" email-notif="true" monthly-emails="true" limit="10" used="3"/>
    </Quotas>
</results>

quota-threshold-exceeded

Availability
Acrobat Connect Pro 7

Description
Returns information about system quota thresholds that have been exceeded.

Each Adobe Connect account has system quotas that determine, for example, how many seats are available for Meeting Hosts, Learners, and so on. Each quota has a threshold; when the threshold is crossed, the system notifies administrators that the quota is in danger of being reached. The threshold varies depending on the quota. For more information about automatic notification, see Adobe Connect User Guide.

Request URL
https://example.com/api/xml
    ?action=quota-threshold-exceeded
    &account-id=Integer
    &acl-id=Integer
    &quota-id=String
    &num-of-days=Integer
    &session=String
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the account. Specify either account-id or acl-id (not both). If you do not specify either account-id or acl-id, results are returned for the account which the current user is logged into. If you specify account-id, results are returned for all quota thresholds that have been reached in the account.</td>
</tr>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the SCO, account, or principal for which you want threshold information. Can be a valid sco-id, account-id, or principal-id. If you do not specify a value for acl-id, the value for account-id is used. The value to use for acl-id depends on the quota ID used; for more information, see “quota-ID” on page 238</td>
</tr>
<tr>
<td>quota-id</td>
<td>String</td>
<td>N</td>
<td>The ID of the system quota for which you want information. For available values, see “quota-ID” on page 238.</td>
</tr>
<tr>
<td>num-of-days</td>
<td>Integer</td>
<td>N</td>
<td>Number of days from the current day for which records are retrieved. If you do not specify a value, all the previous records for the specified quotas are retrieved.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <Records>
    <Record acl-id="Integer" quota-id="String" peak-used="Integer" count="Integer" threshold-pct="Integer" sco-id="Integer">
      <record-date>Date</record-date>
    </Record>
  </Records>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>Records</td>
<td></td>
<td>Container</td>
<td>Lists the records returned.</td>
</tr>
<tr>
<td>Record</td>
<td></td>
<td>Container</td>
<td>Lists information about the record returned.</td>
</tr>
<tr>
<td>acl-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the ACL returned.</td>
</tr>
<tr>
<td>quota-id</td>
<td></td>
<td>String</td>
<td>The ID of the quota returned. For available values, see quota-ID.</td>
</tr>
<tr>
<td>peak-used</td>
<td></td>
<td>Integer</td>
<td>The peak value of quota used on the specified date. This attribute is null for training and group quotas.</td>
</tr>
<tr>
<td>count</td>
<td></td>
<td>Integer</td>
<td>Number of times the threshold was crossed for the quota on the specified date. This attribute is null for training and group quotas.</td>
</tr>
</tbody>
</table>
USING ADOBE CONNECT 8 WEB SERVICES

Action reference

Sample request

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok"/>
  <Records>
    <Record acl-id="20013" quota-id="num-of-members-quota" peak-used="" count=""
    threshold-pct="10" sco-id="">
      <record-date>11/20/2007</record-date>
    </Record>
  </Records>
</results>

quota-threshold-update

Availability
Acrobat Connect Pro 7

Description
Updates the threshold settings of the specified quotas.

Each Adobe Connect account has system quotas that determine, for example, how many seats are available for meeting hosts, trainers, training managers, and so on. Each quota has a threshold; when the threshold is crossed, the system notifies administrators that the quota is in danger of being reached. The settings for the thresholds and notifications vary depending on the quota, and you can configure the settings using this action.

Request URL
https://example.com/api/xml
?action=quota-threshold-update
&account-id=integer
&acl-id=integer
&quota-id=string
&threshold-pct=integer
&login-notif=Boolean
&email-notif=Boolean
&monthly-emails=Boolean
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the account for which quota settings are updated.</td>
</tr>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the SCO, account, or principal for which you want threshold</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>information. Can be a valid <code>sco-id</code>, <code>account-id</code>, or <code>principal-id</code>. If</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>you do not specify a value for <code>acl-id</code>, the value for <code>account-id</code> is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The value to use for <code>acl-id</code> depends on the quota ID used; for more</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>information, see <code>quota-ID</code>.</td>
</tr>
<tr>
<td>quota-id</td>
<td>String</td>
<td>Y</td>
<td>The ID of the quota whose settings are updated. For available values, see</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>quota-ID</code>.</td>
</tr>
<tr>
<td>threshold-pct</td>
<td>Integer</td>
<td>Y</td>
<td>The percent threshold for the quota. The lower the value, the more</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>frequently administrators are notified when the threshold is exceeded (if</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>notifications are enabled).</td>
</tr>
<tr>
<td>login-notif</td>
<td>Boolean</td>
<td>Y</td>
<td>Specifies whether to notify administrators upon logging in that a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>threshold is exceeded (<code>true</code>) or not (<code>false</code>).</td>
</tr>
<tr>
<td>email-notif</td>
<td>Boolean</td>
<td>Y</td>
<td>Specifies whether to notify administrators through e-mail that a threshold</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>is exceeded (<code>true</code>) or not (<code>false</code>).</td>
</tr>
<tr>
<td>monthly-emails</td>
<td>Boolean</td>
<td>Y</td>
<td>Specifies whether to send administrators monthly threshold reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>through e-mail (<code>true</code>) or not (<code>false</code>).</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the <code>BREEZESSESSION</code> cookie. Use this parameter if you do not</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
</tbody>
</table>

Sample request

```
```

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

See also

`quota-threshold-info`, `quota-threshold-exceeded`
**report-active-meetings**

**Availability**
Breeze 4

**Description**
Returns a list of Adobe® Connect™ meetings that are currently in progress, including the number of minutes the meeting has been active.

For `report-active-meetings` to return results, at least one user must be present in at least one meeting room. If meetings are scheduled at present, but no users are attending those meetings, `report-active-meetings` returns an empty response.

**Request URL**
http://server_name/api/xml
?action=report-active-meetings
&session=BreezeSessionCookieValue

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**
Results cannot be filtered or sorted.

**Response structure**

```xml
<results>
  <status code=allowedValue />
  <report-active-meetings>
    <sco sco-id=integer active-participants=integer length-minutes=integer>
      <name>string</name>
      <url-path>string</url-path>
      <date-begin>datetime</date-begin>
    </sco>
  </report-active-meetings>
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
<tr>
<td>report-active-meetings</td>
<td></td>
<td>Container</td>
<td>The list of all meetings currently in progress.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Information about one meeting in progress.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-active-meetings

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-active-meetings>
    <sco sco-id="2006778715" active-participants="" length-minutes="1">
      <name>Designing Online Courses</name>
      <url-path>/online/</url-path>
      <date-begin>2006-06-28T14:35:21.307-07:00</date-begin>
    </sco>
  </report-active-meetings>
</results>

report-bulk-consolidated-transactions

Availability
Breeze 5

Description
Returns information about principal-to-SCO transactions on your Adobe Connect server or in your Adobe Connect hosted account.

A transaction is an instance of one principal visiting one SCO. The SCO can be a Adobe Connect meeting, course, document, or any content on the server.

These are all examples of transactions:

- If a principal attends a meeting twice, two transactions exist: one for each time the principal attended the meeting.
- If five people attend a meeting, five transactions exist: one for each user who attended the meeting.
- If a principal takes two courses three times each and passes each only on the third try, six transactions exist: one for each attempt on each course.

This call returns all transactions, so consider using a filter to reduce the volume of the response. For example, if you use filter-type=meeting, the call returns all meeting transactions:
https://example.com/api/xml?action=report-bulk-consolidated-transactions
   &filter-type=meeting

From the response, you can calculate Adobe Connect meeting usage by comparing times in date-created and date-closed (see “Calculate meeting usage” on page 40”). However, this call to report-bulk-consolidated-transactions, with filter-type=meeting, returns only users who logged in to the meeting as participants, not users who entered the meeting as guests.

Request URL
http://server_name/api/xml
   ?action=report-bulk-consolidated-transactions
   &filter-definition=value
   &sort-definition=value
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code=allowedValue />
   <report-bulk-consolidated-transactions>
      <row transaction-id=integer sco-id=integer type=allowedValue
               principal-id=integer score=integer>
         <name>string</name>
         <url>relativeUrl</url>
         <login>string</login>
         <user-name>string</user-name>
         <status>allowedValue</status>
         <date-created>datetime</date-created>
         <date-closed>datetime</date-closed>
      </row>
      ...
   </report-bulk-consolidated-transactions>
</results>
**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Container</td>
<td></td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>Empty, with attributes</td>
<td></td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-bulk-consolidated-transactions</td>
<td>Container</td>
<td></td>
<td>The entire list of transactions that matches the request.</td>
</tr>
<tr>
<td>row</td>
<td>Container</td>
<td></td>
<td>Details of one transaction that matches the request.</td>
</tr>
<tr>
<td>transaction-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the transaction.</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td></td>
<td>The unique ID of the object (SCO) the user interacted with.</td>
</tr>
<tr>
<td>type</td>
<td>Allowed value</td>
<td></td>
<td>The type of the SCO (see type for allowed values).</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the principal involved in the transaction.</td>
</tr>
<tr>
<td>score</td>
<td>Integer</td>
<td></td>
<td>If the transaction (such as a quiz) assigned a score, the actual score. Otherwise, 0.</td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td></td>
<td>The name assigned to the SCO involved in the transaction.</td>
</tr>
<tr>
<td>url</td>
<td>String</td>
<td></td>
<td>The file name portion of the URL to the SCO involved in the transaction.</td>
</tr>
<tr>
<td>login</td>
<td>String</td>
<td></td>
<td>The principal's login ID.</td>
</tr>
<tr>
<td>user-name</td>
<td>String</td>
<td></td>
<td>The full name of the user involved in the transaction (concatenated from first-name and last-name).</td>
</tr>
<tr>
<td>status</td>
<td>Allowed value</td>
<td></td>
<td>The status of the transaction. Allowed values are completed, in-progress, user-passed, and user-failed.</td>
</tr>
<tr>
<td>date-created</td>
<td>Datetime</td>
<td></td>
<td>The date and time the principal began interacting with the SCO and the transaction was created.</td>
</tr>
<tr>
<td>date-closed</td>
<td>Datetime</td>
<td></td>
<td>The date and time the principal finished interacting with the SCO and the transaction was complete.</td>
</tr>
</tbody>
</table>

**Sample request**

https://example.com/api/xml?action=report-bulk-consolidated-transactions
&filter-type=meeting
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-bulk-consolidated-transactions>
    <row transaction-id="2006905086" sco-id="2006905049" type="meeting"
         principal-id="2006258745" score="0">
      <name>Celebrate End of June Meeting</name>
      <url>/endjune/</url>
      <login>joy@acme.com</login>
      <user-name>Joy Smith</user-name>
      <status>completed</status>
      <date-created>2006-06-30T11:10:37.003-07:00</date-created>
      <date-closed>2006-06-30T11:45:21.397-07:00</date-closed>
    </row>
    <row transaction-id="2006905795" sco-id="2006905049" type="meeting"
         principal-id="2006258745" score="0">
      <name>Celebrate End of June Meeting</name>
      <url>/endjune/</url>
      <login>joy@acme.com</login>
      <user-name>Joy Smith</user-name>
      <status>completed</status>
      <date-created>2006-06-30T17:58:29.060-07:00</date-created>
      <date-closed>2006-06-30T17:59:09.970-07:00</date-closed>
    </row>
    ...
  </report-bulk-consolidated-transactions>
</results>
```

See also

report-bulk-objects, report-bulk-questions, report-bulk-slide-views, report-bulk-users

**report-bulk-objects**

**Availability**
Breeze 5

**Description**
Returns information about all objects (SCOs) on a licensed Adobe Connect Server or in a Adobe Connect hosted account. The object types returned include archive, attachment, authorware, captivate, course, curriculum, external-event, flv, image, meeting, presentation, and swf.

Because the response is likely to be large, use filters to limit it. For example, to return a list of all meetings on the server, filter on the type field:

```
http://example.com/api/xml?action=report-bulk-objects&filter-type=meeting
```

**Request URL**

```
http://server_name/api/xml?
?action=report-bulk-objects
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue
```
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

You can filter or sort the response on any element or attribute it contains.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-bulk-objects>
    <row sco-id=integer type=allowedValue>
      <url>string</url>
      <name>string</name>
      <date-created>datetime</date-created>
      <date-end>datetime</date-end>
      <date-modified>datetime</date-modified>
      <description>datetime</description>
    </row>
    ...
  </report-bulk-objects>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-bulk-objects</td>
<td></td>
<td>Container</td>
<td>The entire list of SCOs on the server; or, if a filter is used, the entire list of SCOs that matches the filter.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Details about one SCO.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of the SCO.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of SCO (see type).</td>
</tr>
<tr>
<td>url</td>
<td></td>
<td>String</td>
<td>The unique identifier of the training SCO, placed in the URL after the domain name.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The name assigned to the SCO.</td>
</tr>
<tr>
<td>date-created</td>
<td></td>
<td>Datetime</td>
<td>The date the SCO was created. For a meeting, the date and time the meeting starts.</td>
</tr>
</tbody>
</table>
Sample request

http://example.com/api/xml?action=report-bulk-objects&filter-type=meeting
&filter-gt-date-created=2006-06-01

Sample response

<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-bulk-objects>
    <row sco-id="2006778715" type="meeting">
      <url>/online/</url>
      <name>Designing Online Courses</name>
      <date-created>2006-06-28T14:15:00.000-07:00</date-created>
      <date-end>2006-06-28T14:30:00.000-07:00</date-end>
      <date-modified>2006-07-13T14:57:54.150-07:00</date-modified>
    </row>
    ...
  </report-bulk-objects>
</results>

See also


**report-bulk-questions**

**Availability**

Breeze 5

**Description**

Returns information about every quiz question in the account you are logged in to.

The response includes a combination of the quiz question, the answer, the ID of the user who answered, and the ID of the transaction.

This action returns all question-and-answer combinations in the account, unless you use a filter to limit the size of the response.

**Request URL**

http://server_name/api/xml
?action=report-bulk-questions
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-bulk-questions>
    <row transaction-id=integer score=integer principal-id=integer>
      <question>string</question>
      <response>string</response>
      <date-created>datetime</date-created>
    </row>
    ...
  </report-bulk-questions>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-bulk-questions</td>
<td></td>
<td>Container</td>
<td>The entire list of question-and-answer combinations that match the request.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Details about one question-and-answer combination.</td>
</tr>
<tr>
<td>transaction-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the interaction between a user and a quiz.</td>
</tr>
<tr>
<td>score</td>
<td></td>
<td>Integer</td>
<td>The score assigned to the question.</td>
</tr>
<tr>
<td>principal-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the user who answered or viewed the question.</td>
</tr>
<tr>
<td>question</td>
<td></td>
<td>String</td>
<td>The text of the question, which might be phrased as a statement.</td>
</tr>
<tr>
<td>response</td>
<td></td>
<td>String</td>
<td>The response the user chose or entered.</td>
</tr>
<tr>
<td>date-created</td>
<td></td>
<td>Datetime</td>
<td>The date and time the user answered the question.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=report-bulk-questions
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok"/>
  <report-bulk-questions>
    <row transaction-id="2006335803" score="10" principal-id="2006258745">
      <question>The capital of California is<1></question>
      <response>Sacramento</response>
      <date-created>2006-05-11T15:50:23.643-07:00</date-created>
    </row>
    <row transaction-id="2006335827" score="0" principal-id="2006258745">
      <question>The capital of California is<1></question>
      <response>san francisco</response>
      <date-created>2006-05-11T17:32:53.970-07:00</date-created>
    </row>
  </report-bulk-questions>
</results>
```

See also


### report-bulk-slide-views

**Availability**

Breeze 5

**Description**

Returns information about each occasion on which a principal views a slide. The slide can be in any presentation in the account the current user belongs to.

Each slide view is a transaction. A **transaction** is an interaction between a user and any SCO on Adobe Connect. In this case, the transaction is between a user and a slide.

This action returns all occurrences of principals viewing slides in the account, unless you filter the response.

**Request URL**

```
http://server_name/api/xml
?action=report-bulk-slide-views
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>
Filters
You can filter or sort the response on any element or attribute it contains.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-bulk-slide-views>
    <row transaction-id=integer principal-id=integer>
      <page>integer</page>
      <date-created>datetime</date-created>
    </row>
    ...
  </report-bulk-slide-views>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Container</td>
<td></td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>Empty, with attributes</td>
<td></td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td>Allowed value</td>
<td></td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-bulk-slide-views</td>
<td>Container</td>
<td></td>
<td>The entire list of slide views that match the request.</td>
</tr>
<tr>
<td>row</td>
<td>Container</td>
<td></td>
<td>Details about one slide view.</td>
</tr>
<tr>
<td>transaction-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the interaction between the user and the slide.</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the user who viewed the slide.</td>
</tr>
<tr>
<td>page</td>
<td>Integer</td>
<td></td>
<td>The page number of the slide in the presentation.</td>
</tr>
<tr>
<td>date-created</td>
<td>Datetime</td>
<td></td>
<td>The date and time the user viewed the slide.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=report-bulk-slide-views
&filter-principal-id=123456
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-bulk-slide-views>
    <row transaction-id="2006334916" principal-id="123456">
      <page>0</page>
      <date-created>2006-05-11T12:02:01.470-07:00</date-created>
    </row>
    <row transaction-id="2006334916" principal-id="123456">
      <page>0</page>
      <date-created>2006-05-11T12:02:01.487-07:00</date-created>
    </row>
    ...
  </report-bulk-slide-views>
</results>
```

See also

report-bulk-objects, report-bulk-questions, report-bulk-consolidated-transactions, report-bulk-users

**report-bulk-users**

**Availability**
Breeze 5

**Description**
Returns information about all users in an account. The difference between this call and principal-list is that principal-list returns both users and groups, while report-bulk-users returns only users.

The response from report-bulk-users can be quite large, especially if you use custom fields, so remember that you can filter and sort it. For example, the following call returns a list of all users who have the letters Jo in their name, in ascending order by name:

```
http://myserver.com/api/xml?action=report-bulk-users&sort-name=asc
&filter-like-name=Jo
```

If you pass custom-fields=true, by default report-bulk-users returns up to eight custom fields defined for users. If you have defined more than eight custom fields for users, report-bulk-users returns the first eight in the list in the Customize User Profile screen in Connect Central (at Administration > Users and Groups > Customize User Profile).

If you use Adobe Connect Server, you can set a value for REPORT_MAX_CUSTOM_FIELDS in the custom.ini file to have report-bulk-users return more than eight custom fields. You can use any value, but higher values risk a greater impact to database performance. You cannot change this setting on a Adobe Connect hosted account.

**Request URL**

```
http://server_name/api/xml
?action=report-bulk-users
&custom-fields=boolean
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue
```
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>custom-fields</td>
<td>Boolean</td>
<td>N</td>
<td>Whether to return custom fields in the response. Returns up to eight custom fields. If true, the manager field is not returned in the response.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

You can filter or sort the response on any element or attribute it contains.

You can use filter-type with report-bulk-users to filter the type of users returned (user or guest).

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-bulk-users>
    <row principal-id=integer type="string">
      <login>string</login>
      <name>string</name>
      <email>string</email>
      <manager>string</manager>
      .. any custom fields ..
    </row>
    ...
  </report-bulk-users>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>Top-level element for the response.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-bulk-users</td>
<td></td>
<td>Container</td>
<td>The entire list of users in the account.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Details about one user in the account.</td>
</tr>
<tr>
<td>principal-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the user.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>String</td>
<td>The type of user, either user or guest.</td>
</tr>
<tr>
<td>login</td>
<td></td>
<td>String</td>
<td>The user’s login ID, often an e-mail address.</td>
</tr>
</tbody>
</table>

Last updated 12/16/2010
Sample request
https://example.com/api/xml?action=report-bulk-users&filter-like-name=john

Sample response
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-bulk-users>
    <row principal-id="5417288" type="guest">
      <login>john@example.com</login>
      <name>John Owens</name>
      <email>john@example.com</email>
    </row>
    <row principal-id="5417255" type="user">
      <login>jsmith@example.com</login>
      <name>John Smith</name>
      <email>jsmith@example.com</email>
    </row>
    ...
  </report-bulk-users>
</results>
```

See also
- report-bulk-objects
- report-bulk-questions
- report-bulk-slide-views
- report-bulk-consolidated-transactions

**report-course-status**

**Availability**
Breeze 4

**Description**
Returns summary information about a course, including the number of users who have passed, failed, and completed the course, as well as the current number of enrollees. The request requires the sco-id of a course.

Connect Central uses this call to display Course Status in the Summary report. This report is available at Training > Shared Training > [course name] > Reports > Summary.
Request URL
http://server_name/api/xml
   ?action=report-course-status
   &sco-id=integer
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of the course for which you want summary information.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code=allowedValue />
   <report-course-status total-course-completions=integer
                           total-unique-course-completions=integer
                           num-passed=integer
                           num-failed=integer
                           num-enrollees=integer />
   <date-last-taken>datetime</date-last-taken>
</report-course-status>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-course-status</td>
<td></td>
<td>Container</td>
<td>Summary information about a course.</td>
</tr>
<tr>
<td>total-course-completions</td>
<td></td>
<td>Integer</td>
<td>The total number of times users have completed the course, including passing scores, failing scores, and multiple attempts by the same user.</td>
</tr>
<tr>
<td>total-unique-course-completions</td>
<td></td>
<td>Integer</td>
<td>The number of distinct users who have completed the course, including passing and failing scores but not multiple attempts by the same user.</td>
</tr>
<tr>
<td>num-completed</td>
<td></td>
<td>Integer</td>
<td>The number of users who have completed the course, for courses that do not have a passing score.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-course-status&sco-id=123456

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-course-status total-course-completions="1" total-unique-course-completions="1" num-completed="0" num-passed="1" num-failed="0" num-enrollees="4">
    <date-last-taken>2006-10-10T13:55:24.480-07:00</date-last-taken>
  </report-course-status>
</results>

report-curriculum-taker

Availability
Connect Enterprise 6

Description
Returns information about a user’s progress in a curriculum.

The response includes a row element for each course in the curriculum, which has information such as access to the course, whether credit was granted, the user’s score, the unique url-path to the course, and so on.

Request URL
http://server_name/api/xml
  ?action=report-curriculum-taker
  &user-id=integer
  &sco-id=integer
  &session=BreezeSessionCookieValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>user-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the user whose scores you want to check.</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of the curriculum for which you want a summary.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-curriculum-taker>
    <sco transcript-id=integer path-type=allowedValue asset-id=integer
    sco-id=integer depth=integer folder-id=integer
    type=integer icon=allowedValue lang=allowedValue
    max-retries=integer source-sco-id=integer
    source-sco-type=allowedValue status=allowedValue score=integer
    certificate=integer max-score=integer attempts=integer>
      <access>allowedValue</access>
      <credit-granted>boolean</credit-granted>
      <name>string</name>
      <url-path>string</url-path>
      <date-modified>datetime</date-modified>
      <override>boolean</override>
    </sco>
  </report-curriculum-taker>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-curriculum-taker</td>
<td></td>
<td>Container</td>
<td>Information about the user’s performance in the entire curriculum.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Information about the user’s work with one course or curriculum.</td>
</tr>
<tr>
<td></td>
<td>transcript-id</td>
<td>Integer</td>
<td>The ID of the user’s transcript for the course or curriculum.</td>
</tr>
<tr>
<td></td>
<td>path-type</td>
<td>Allowed value</td>
<td>The learning path a user must take before attempting this course or curriculum (see path-type for allowed values).</td>
</tr>
<tr>
<td>Element</td>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
<td>----------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>asset-id</td>
<td>Integer</td>
<td>The version of the course or curriculum the user attempted to complete. The asset-id is incremented each time the course or curriculum has new content uploaded.</td>
</tr>
<tr>
<td></td>
<td>sco-id</td>
<td>Integer</td>
<td>The unique ID of the course or curriculum.</td>
</tr>
<tr>
<td></td>
<td>depth</td>
<td>Integer</td>
<td>A course's level below the curriculum in the navigation hierarchy. For a curriculum, 0; for a course one level below the curriculum, 1.</td>
</tr>
<tr>
<td></td>
<td>folder-id</td>
<td>Integer</td>
<td>The ID of the folder that contains the course or curriculum. For a course, the ID of a curriculum; for a curriculum, the ID of a user.</td>
</tr>
<tr>
<td></td>
<td>type</td>
<td>Integer</td>
<td>The type of the course or curriculum (see type for allowed values).</td>
</tr>
<tr>
<td></td>
<td>icon</td>
<td>Allowed</td>
<td>The type of icon that identifies the course or curriculum in Connect Central (see icon for values).</td>
</tr>
<tr>
<td></td>
<td>lang</td>
<td>Allowed</td>
<td>The language associated with the course or curriculum (see lang for values).</td>
</tr>
<tr>
<td></td>
<td>max-retries</td>
<td>Integer</td>
<td>The maximum number of times a user can retake the course or curriculum. If a user can take the course 3 times, max-retries is 2.</td>
</tr>
<tr>
<td></td>
<td>source-sco-id</td>
<td>Integer</td>
<td>The unique ID of the SCO used as a template for the course or curriculum.</td>
</tr>
<tr>
<td></td>
<td>source-sco-type</td>
<td>Integer</td>
<td>The type of SCO used as a template for the course or curriculum (see type for values).</td>
</tr>
<tr>
<td></td>
<td>status</td>
<td>Allowed</td>
<td>The status of the user's attempt to use the course or curriculum. For courses, allowed values are completed, incomplete, user-passed, user-failed, and not-attempted. For curriculums and folders, allowed values are completed and incomplete.</td>
</tr>
<tr>
<td></td>
<td>score</td>
<td>Integer</td>
<td>The score the user earned on the course or curriculum.</td>
</tr>
<tr>
<td></td>
<td>certificate</td>
<td>Integer</td>
<td>The ID of the user's certificate.</td>
</tr>
<tr>
<td></td>
<td>max-score</td>
<td>Integer</td>
<td>The maximum score possible for the course or curriculum.</td>
</tr>
<tr>
<td></td>
<td>attempts</td>
<td>Integer</td>
<td>The number of times the user has attempted the course or curriculum.</td>
</tr>
<tr>
<td></td>
<td>access</td>
<td>Allowed</td>
<td>The level of access the user has to the course or curriculum (see access for allowed values).</td>
</tr>
<tr>
<td></td>
<td>credit-granted</td>
<td>Boolean</td>
<td>A value indicating whether credit was granted for the course or curriculum.</td>
</tr>
<tr>
<td></td>
<td>name</td>
<td>String</td>
<td>The name of the learning object or curriculum.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-curriculum-taker
&user-id=2006258748&sco-id=2006298444

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-curriculum-taker>
    <sco transcript-id="2006905613" path-type="prereq-none"
      asset-id="2006334911" sco-id="2006334909" depth="0"
      folder-id="2006258747" type="content" icon="producer"
      lang="en" max-retries="" source-sco-id="" source-sco-type=""
      status="user-failed" score="0" certificate="" max-score="0"
      attempts="5">
      <access>access-open</access>
      <credit-granted>false</credit-granted>
      <name>Test Quiz</name>
      <url-path>/quiz/</url-path>
      <date-created>2006-06-30T15:24:34.897-07:00</date-created>
      <date-modified>2006-05-16T15:22:25.703-07:00</date-modified>
      <date-taken>2006-06-30T15:24:34.897-07:00</date-taken>
      <override>false</override>
    </sco>
  </report-curriculum-taker>
</results>

**report-meeting-attendance**

**Availability**
Breeze 4

**Description**
Returns a list of users who attended an Adobe Connect meeting. The data is returned in row elements, one for each person who attended. If the meeting hasn’t started or had no attendees, the response contains no rows. The response does not include meeting hosts or users who were invited but did not attend.

To call **report-meeting-attendance**, you must have publish, mini-host, or host permission on the meeting (see **permission-id** for details).
Request URL

http://server_name/api/xml
    ?action=report-meeting-attendance
    &sco-id=integer
    &filter-definition=value
    &sort-definition=value
    &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a meeting.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

You can filter or sort the response on any element or attribute it contains.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="allowedValue" />
    <report-meeting-attendance>
        <row transcript-id=integer sco-id=integer principal-id=integer
               answered-survey=boolean>
            <login>string</login>
            <session-name>string</session-name>
            <sco-name>string</sco-name>
            <date-created>datetime</date-created>
            <date-end>datetime</date-end>
            <participant-name>string</participant-name>
        </row>
    ...
</report-meeting-attendance>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-meeting-attendance</td>
<td></td>
<td>Container</td>
<td>The entire list of attendees for the meeting.</td>
</tr>
<tr>
<td>row</td>
<td>transcript-id</td>
<td>Integer</td>
<td>Data about one meeting attendee.</td>
</tr>
</tbody>
</table>
Sample request

https://example.com/api/xml?action=report-meeting-attendance
&sco-id=2006778715

Sample response

<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-meeting-attendance>
    <row transcript-id="2006778723" sco-id="2006778715"
        principal-id="2006258745" answered-survey="0">
      <login>joy@acme.com</login>
      <session-name>Joy Smith</session-name>
      <sco-name>Designing Online Courses</sco-name>
      <date-created>2006-06-28T14:35:21.307-07:00</date-created>
      <date-end>2006-06-28T15:09:05.447-07:00</date-end>
      <participant-name>Joy Smith</participant-name>
    </row>
  </report-meeting-attendance>
</results>

**report-meeting-concurrent-users**

**Availability**

Breeze 4

**Description**

Returns the maximum number of users in Adobe Connect meetings concurrently in the last 30 days, and the number of times the maximum has been reached. The maximum is the peak number of users in any meetings at a single moment, whether one meeting, multiple concurrent meetings, or multiple overlapping meetings.
You can change the time period to a period greater than 30 days by adding a `length` parameter, for example, `length=120`.

The maximum number of users (`max-users`) is determined by the account license and applies to the server overall, not to a specific meeting. This action also returns the number of times in the current month the maximum has been reached (`max-participants-freq`).

**Request URL**

```
http://server_name/api/xml
  ?action=report-meeting-concurrent-users
  &length=integer
  &session=BreezeSessionCookieValue
```

### Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>length</td>
<td>Integer</td>
<td>N</td>
<td>The number of days in the time period to check for concurrent meeting usage. Use a value greater than 30. The default value is 30.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

### Filters

Results cannot be filtered or sorted.

### Response structure

```
<results>
  <status code=allowedValue />
  <report-meeting-concurrent-users max-users=integer
    max-participants-freq=integer />
</results>
```

### Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
<tr>
<td>report-meeting-concurrent-users</td>
<td></td>
<td>Empty, with attributes</td>
<td>Information about the peak number of users in meetings at the same moment.</td>
</tr>
<tr>
<td>max-users</td>
<td></td>
<td>Integer</td>
<td>The peak number of users in meetings at the same moment (either a single meeting or concurrent meetings) during the time period.</td>
</tr>
<tr>
<td>max-participants-freq</td>
<td></td>
<td>Integer</td>
<td>The number of times the maximum has been reached in the time period.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-meeting-concurrent-users

Sample response
<results>
  <status code="ok" />
  <report-meeting-concurrent-users max-users="400"
    max-participants-freq="1" />
</results>

report-meeting-sessions

Availability
Breeze 4

Description
Provides information about all the sessions of a Adobe Connect meeting. A session is created when a participant enters an empty meeting. As more participants join the meeting, they join the session. The session ends when all attendees leave the meeting. When a new participant enters the now-empty meeting, a new session starts. For example, a recurring weekly meeting has a session each week when the meeting is held.

You can call report-meeting-sessions on past meetings, active meetings, or future meetings, but future meetings are not likely to have sessions.

Request URL
http://server_name/api/xml
  ?action=report-meeting-sessions
  &sco-id=integer
  &filter-definition=value
  &sort-definition=value
  &session=BREEZESESSIONCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a meeting for which you want session information.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.
Response structure

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="allowedValue" />  
  <report-meeting-sessions>
    <row sco-id=integer asset-id=integer version=integer
         num-participants=integer>
      <date-created>datetime</date-created>
      <date-end>datetime</date-end>
    </row>
    ...
  </report-meeting-sessions>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-meeting-sessions</td>
<td></td>
<td>Container</td>
<td>The entire list of sessions for the meeting.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Information about one session.</td>
</tr>
<tr>
<td>sco-id</td>
<td>sco-id</td>
<td>Integer</td>
<td>The unique ID of the meeting.</td>
</tr>
<tr>
<td>asset-id</td>
<td>asset-id</td>
<td>Integer</td>
<td>The unique ID of the session.</td>
</tr>
<tr>
<td>version</td>
<td>version</td>
<td>Integer</td>
<td>A sequential ID for the session, starting at 1.</td>
</tr>
<tr>
<td>num-participants</td>
<td>num-participants</td>
<td>Integer</td>
<td>The number of participants in the meeting, other than the host.</td>
</tr>
<tr>
<td>date-created</td>
<td>date-created</td>
<td>Datetime</td>
<td>The date and time the session was created, when the participant entered the meeting room.</td>
</tr>
<tr>
<td>date-end</td>
<td>date-end</td>
<td>Datetime</td>
<td>The date and time the session ended, when the participant left the meeting room.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=report-meeting-sessions
  &sco-id=2006811328

Sample response

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />  
  <report-meeting-sessions>
    <row sco-id=2006811328 asset-id=2006811333 version="1"
         num-participants="1"> 
      <date-created>2006-06-29T11:46:52.210-07:00</date-created>
      <date-end>2006-06-29T13:34:43.410-07:00</date-end>
    </row>
    ...
  </report-meeting-sessions>
</results>
```
**report-meeting-summary**

**Availability**
Breeze 4

**Description**
Returns summary information about a specific Adobe Connect meeting. The results indicate how many users were invited, how many invited participants and guests attended, and other information about the meeting.

To use `report-meeting-summary`, you need `publish`, `host`, or `mini-host` permission on the meeting. With one of these permissions, you can run `report-meeting-summary` on a current, completed, or future meeting. The results are most useful for a completed meeting.

A meeting might be recurring (for example, a weekly staff meeting) and have an occurrence each time the meeting is held. If the meeting is recurring, the statistics returned by `report-meeting-summary` are cumulative, applying to all occurrences of the meeting, not just the latest one.

**Request URL**
http://server_name/api/xml
?action=report-meeting-summary
&sco-id=integer
&session=BreezeSessionCookieValue

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a meeting for which you have <code>publish</code> or <code>host</code> permission.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**
Results cannot be filtered or sorted.

**Response structure**

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-meeting-summary num-unique-meetings=integer peak-users=integer num-invitees=integer num-invitees-attended=integer ispublic=boolean num-guests-attended=integer />
</results>
```

**Returned XML elements**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
</tbody>
</table>
### Chapter 1: Using Adobe Connect 8 Web Services

#### Action Reference

Last updated 12/16/2010

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>report-meeting-summary</td>
<td>Empty, with attributes</td>
<td></td>
<td>Details about the meeting or meeting series.</td>
</tr>
<tr>
<td>num-unique-meetings</td>
<td>Integer</td>
<td></td>
<td>The number of occurrences of a recurring meeting.</td>
</tr>
<tr>
<td>peak-users</td>
<td>Integer</td>
<td></td>
<td>The highest number of participants in the meeting room at one time, during any one meeting occurrence.</td>
</tr>
<tr>
<td>num-invitees</td>
<td>Integer</td>
<td></td>
<td>The number of users who were invited.</td>
</tr>
<tr>
<td>num-invitees-attended</td>
<td>Integer</td>
<td></td>
<td>The number of invited users who attended.</td>
</tr>
<tr>
<td>ispublic</td>
<td>Boolean</td>
<td></td>
<td>Whether the meeting is public and guests can enter automatically (if 1 or true), or private and must wait for permission (if 0 or false).</td>
</tr>
<tr>
<td>num-guests-attended</td>
<td>Integer</td>
<td></td>
<td>The number of participants who entered the meeting room as guests rather than as registered attendees.</td>
</tr>
</tbody>
</table>

#### Sample Request

https://example.com/api/xml?action=report-meeting-summary&sco-id=2006334033

#### Sample Response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-meeting-summary num-unique-meetings="1" peak-users="1"
    num-invitees="1" num-invitees-attended="1" ispublic="1"
    num-guests-attended="0">
    <most-recent-session>
      2006-06-28T15:11:15.133-07:00
    </most-recent-session>
  </report-meeting-summary>
</results>
```

### Chapter 2: Report-my-Courses

#### Availability

Breeze 4

#### Description

Provides information about each course the current user is or was enrolled in.

The returned courses include future courses, past courses, and courses the user is presently taking. The list of courses can be quite large, so remember to use a filter to reduce the response.

Each course has a permission-id that shows the level of access the user has to the course. For example, the access might be view, publish, or manage.
Request URL

http://server_name/api/xml
   ?action=report-my-courses
   &filter-definition=value
   &sort-definition=value
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

You can filter or sort the response on any element or attribute it contains.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code=allowedValue />
   <my-courses>
      <course sco-id=integer type="content" icon="course"
               permission-id=allowedValue>
         <name>string</name>
         <description>string</description>
         <url>string</url>
         <date-created>datetime</date-created>
         <date-modified>datetime</date-modified>
         <date-begin>datetime</date-begin>
         <url-path>strings</url-path>
         <expired>boolean</expired>
         <completed>boolean</completed>
      </course>
      ...
   </my-courses>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>my-courses</td>
<td></td>
<td>Container</td>
<td>Information about all courses the user is enrolled in.</td>
</tr>
<tr>
<td>course</td>
<td></td>
<td>Container</td>
<td>Information about one course the user is enrolled in.</td>
</tr>
<tr>
<td></td>
<td>sco-id</td>
<td>Integer</td>
<td>The unique ID of the course.</td>
</tr>
<tr>
<td></td>
<td>type</td>
<td>Allowed value</td>
<td>The type of the course (for allowed values, see type).</td>
</tr>
</tbody>
</table>
Sample request

https://example.com/api/xml?action=report-my-courses

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <my-courses>
    <course sco-id="2006298431" type="content" icon="course"
          permission-id="view">
      <name>Test Course</name>
      <url>example.com/test/</url>
      <date-created>2006-05-03T10:21:46.810-07:00</date-created>
      <date-modified>2006-05-03T10:22:30.803-07:00</date-modified>
      <date-begin>2006-05-03T10:15:00.000-07:00</date-begin>
      <url-path>/test/</url-path>
      <expired>false</expired>
      <completed>false</completed>
    </course>
  </my-courses>
</results>
```

**report-my-events**

**Availability**

Breeze 5
Description
Provides information about each event the current user has attended or is scheduled to attend. The user can be either
a host or a participant in the event. The events returned are those in the user’s my-events folder.

To obtain information about all events on your Adobe Connect Server or in your Adobe Connect hosted account, call
sco-shortcuts to get the sco-id of the events folder. Then, call sco-contents with the sco-id to list all events.

Request URL
http://server_name/api/xml
?action=report-my-events
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
 <status code=allowedValue />  
 <my-events>
  <event sco-id=integer type="event" icon="event"
   permission-id=allowedValue>
   <name>string</name>
   <domain-name>string</domain-name>
   <url-path>string</url-path>
   <date-begin>datetime</date-begin>
   <date-end>datetime</date-end>
   <expired>boolean</expired>
   <duration>datetime/duration
  </event>
  ...
 </my-events>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-my-events

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <my-events>
    <event sco-id="2006334107" type="event" icon="event"
        permission-id="host">
      <name>Meet the Famous Author</name>
      <domain-name>example.com</domain-name>
      <url-path>http://example.com/author/</url-path>
      <date-begin>2006-05-12T18:00:00.000-07:00</date-begin>
      <date-end>2006-05-12T20:00:00.000-07:00</date-end>
      <expired>true</expired>
      <duration>02:00:00.000</duration>
    </event>
  </my-events>
</results>

report-my-meetings

Availability
Breeze 4
Description
Provides information about all Adobe Connect meetings for which the user is a host, invited participant, or registered guest. The meeting can be scheduled in the past, present, or future.

Request URL
http://server_name/api/xml
?action=report-my-meetings
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <my-meetings>
    <meeting sco-id=integer type="meeting" icon="meeting"
      permission-id=allowedValue active-participants=integer>
      <name>string</name>
      <description>string</description>
      <domain-name>domain</domain-name>
      <url-path>url</url-path>
      <date-begin>date</date-begin>
      <date-end>date</date-end>
      <expired>boolean</expired>
      <duration>time</duration>
    </meeting>
    ...
  </my-meetings>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>code</td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>my-meetings</td>
<td></td>
<td>Container</td>
<td>Information about all meetings the user is, or has been, invited to.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-my-meetings
Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <my-meetings>
    <meeting sco-id="2006334033" type="meeting" icon="meeting" permission-id="host" active-participants="0">
      <name>How to Write a Novel</name>
      <domain-name>example.com</domain-name>
      <url-path>/novel/</url-path>
      <date-begin>2006-05-11T11:30:00.000-07:00</date-begin>
      <date-end>2006-05-11T12:30:00.000-07:00</date-end>
      <expired>true</expired>
      <duration>01:00:00.000</duration>
    </meeting>
    <meeting sco-id="2006743452" type="meeting" icon="meeting" permission-id="host" active-participants="0">
      <name>Intro to Film</name>
      <domain-name>example.com</domain-name>
      <url-path>/film/</url-path>
      <date-begin>2006-06-09T14:00:00.000-07:00</date-begin>
      <date-end>2006-06-09T20:00:00.000-07:00</date-end>
      <expired>true</expired>
      <duration>06:00:00.000</duration>
    </meeting>
  </my-meetings>
</results>

report-my-training

Availability
Connect Enterprise 6

Description
Returns a list of all courses and curriculums a user or group is enrolled in. If you do not use a principal-id, the list is for the current user. If you add a principal-id, the list is for the principal you specify.

The response contains a list of row elements. In the list, courses have the attributes type=content and icon=course, while curriculums have type=curriculum and icon=curriculum.

Request URL
http://server_name/api/xml
  ?action=report-my-training
  &principal-id=integer
  &filter-definition=value
  &sort-definition=value
  &session=BreezeSessionCookieValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>N</td>
<td>The unique ID of a user or group whose courses and curriculums you want to list. If you do not specify a value, the response is for the current user.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

You can filter or sort the response on any element or attribute it contains.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="allowedValue" />
  <report-my-training>
    <row sco-id="integer" type="allowedValue" icon="allowedValue" max-retries="integer"
     permission-id="allowedValue" transcript-id="integer" attempts="integer">
      <name>string</name>
      <url>string</url>
      <date-created>datetime</date-created>
      <date-modified>datetime</date-modified>
      <date-begin>datetime</date-begin>
      <url-path>string</url-path>
      <expired>boolean</expired>
      <completed>boolean</completed>
    </row>
    ...
  </report-my-training>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status [see status].</td>
</tr>
<tr>
<td>report-my-training</td>
<td>Container</td>
<td></td>
<td>The entire list of courses and curriculums the user is enrolled in.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Information about one course or curriculum the user is enrolled in.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of the course or curriculum.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of the object [see type for allowed values].</td>
</tr>
<tr>
<td>icon</td>
<td></td>
<td>Allowed value</td>
<td>The icon that identifies the object in Connect Central [see icon for allowed values]. If type is content, the icon value describes the content.</td>
</tr>
<tr>
<td>Element</td>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>max-retries</td>
<td>Integer</td>
<td></td>
<td>The allowed number of attempts that the course can be retaken.</td>
</tr>
<tr>
<td>permission-id</td>
<td>Allowed</td>
<td>value</td>
<td>The permission the principal has on the object (see permission-id for allowed values).</td>
</tr>
<tr>
<td>transcript-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the course transcript.</td>
</tr>
<tr>
<td>attempts</td>
<td>Integer</td>
<td></td>
<td>The number of times the user has tried to complete the course.</td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td></td>
<td>The name of the course or curriculum.</td>
</tr>
<tr>
<td>description</td>
<td>String</td>
<td></td>
<td>The course or curriculum description.</td>
</tr>
<tr>
<td>url</td>
<td>String</td>
<td></td>
<td>The part of the URL to the course or curriculum that includes the domain name and unique name, without http:// or https://.</td>
</tr>
<tr>
<td>date-created</td>
<td>Datetime</td>
<td></td>
<td>The date and time the course or curriculum was created.</td>
</tr>
<tr>
<td>date-modified</td>
<td>Datetime</td>
<td></td>
<td>The date and time the course or curriculum was last modified.</td>
</tr>
<tr>
<td>date-begin</td>
<td>Datetime</td>
<td></td>
<td>The start date and time of the course or curriculum, either past or future.</td>
</tr>
<tr>
<td>date-end</td>
<td>Datetime</td>
<td></td>
<td>The end date or time of the course or curriculum, either past or future.</td>
</tr>
<tr>
<td>sco-tag</td>
<td>String</td>
<td></td>
<td>A non-unique identifier for the course or curriculum as shown in the user interface, for example, ECON101.</td>
</tr>
<tr>
<td>url-path</td>
<td>String</td>
<td></td>
<td>The unique name of the course or curriculum in its URL.</td>
</tr>
<tr>
<td>expired</td>
<td>Boolean</td>
<td></td>
<td>A value indicating whether the end date of the course or curriculum has passed (true if it has, false if not).</td>
</tr>
<tr>
<td>completed</td>
<td>Boolean</td>
<td></td>
<td>A value indicating whether the user or group has completed the course.</td>
</tr>
<tr>
<td>tr-status</td>
<td>String</td>
<td></td>
<td>Whether the user has attempted to take the course (attempted) or not (not-attempted).</td>
</tr>
</tbody>
</table>

Sample request
https://example.com/api/xml?action=report-my-training
&principal-id=2006258745
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-my-training>
    <row sco-id="2006298431" type="content" icon="course" max-retries=""
      permission-id="view" transcript-id="" attempts="0">
      <name>Intro to Psychology</name>
      <url>example.com/psychology/</url>
      <date-created>2006-05-03T10:21:46.810-07:00</date-created>
      <date-modified>2006-05-03T10:22:30.803-07:00</date-modified>
      <date-begin>2006-05-03T10:15:00.000-07:00</date-begin>
      <url-path>/psychology/</url-path>
      <expired>false</expired>
      <completed>true</completed>
    </row>
    <row sco-id="2006745669" type="curriculum" icon="curriculum"
      permission-id="view">
      <name>A Day in the Life</name>
      <url>example.com/day/</url>
      <date-created>2006-06-12T14:47:59.903-07:00</date-created>
      <date-modified>2006-06-12T14:47:59.903-07:00</date-modified>
      <date-begin>2006-06-12T14:45:00.000-07:00</date-begin>
      <url-path>/day/</url-path>
      <expired>false</expired>
      <completed>false</completed>
    </row>
  </report-my-training>
</results>
```

**report-quiz-interactions**

**Availability**
Breeze 4

**Description**
Provides information about all the interactions users have had with a certain quiz. An interaction identifies all answers one user makes to one quiz question. If a user answers the same question more than once, all answers are part of the same interaction and have the same interaction-id.

This report provides information about every answer that any user has ever given to questions on a quiz. You can filter the response to make it more meaningful, using any allowed filters. For example, you can request all answers a certain user has given:

https://example.com/api/xml?action=report-quiz-interactions
&SCO-ID=2006298431&filter-like-name=Joy%20Smith

Or, you can request only a certain user’s answers to a specific question:

https://example.com/api/xml?action=report-quiz-interactions
&SCO-ID=2006298431&filter-name=Joy%20Smith
&filter-like-description=What%20is%20the%20capital%20of%20California
Request URL
http://server_name/api/xml
   ?action=report-quiz-interactions
   &sco-id=integer
   &filter-definition=value
   &sort-definition=value
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a presentation or course that contains a quiz.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure

```xml
<results>
  <status code=allowedValue />
  <report-quiz-interactions>
    <row display-seq=integer transcript-id=integer interaction-id=integer>
      <sco-id=integer sco-score=integer>
        <name>string</name>
        <sco-name>string</sco-name>
        <date-created>datetime</date-created>
        <description>string</description>
        <response>integer</response>
      </row>
    ...
  </report-quiz-interactions>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-quiz-interactions</td>
<td></td>
<td>Container</td>
<td>Information about all interactions all users have had with the quiz.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Information about one user, one quiz question, and one answer. Multiple row elements can be part of the same interaction.</td>
</tr>
<tr>
<td></td>
<td>display-seq</td>
<td>Integer</td>
<td>The sequence number of this question in the quiz.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-quiz-interactions
&sco-id=2006334909&filter-name=Joy Smith
&filter-like-description=governor
Sample request

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
<status code="ok" />
  <report-quiz-interactions>
    <row display-seq="2" transcript-id="2006335803"
      interaction-id="2006334914" sco-id="2006334909" score="10">
      <name>Joy Smith</name>
      <sco-name>California Quiz</sco-name>
      <date-created>2006-05-11T15:50:23.643-07:00</date-created>
      <description>
        The governor of California is a former actor.
      </description>
      <response>true</response>
    </row>
    <row display-seq="2" transcript-id="2006335827"
      interaction-id="2006334914" sco-id="2006334909" score="0">
      <name>Joy Smith</name>
      <sco-name>California Quiz</sco-name>
      <date-created>2006-05-11T17:32:53.970-07:00</date-created>
      <description>
        The governor of California is a former actor.
      </description>
      <response>false</response>
    </row>
    <row display-seq="2" transcript-id="2006335954"
      interaction-id="2006334914" sco-id="2006334909" score="10">
      <name>Joy Smith</name>
      <sco-name>California Quiz</sco-name>
      <date-created>2006-05-12T11:55:24.940-07:00</date-created>
      <description>
        The governor of California is a former actor.
      </description>
      <response>true</response>
    </row>
  </report-quiz-interactions>
</results>
```

**report-quiz-question-answer-distribution**

**Availability**
Breeze 4

**Description**
Returns information about the number of users who chose a specific answer to a quiz question. The combination of one quiz question and all of one user’s answers to it is called an interaction. If the user answers the question more than once, all answers are part of the same interaction and have the same interaction-id.

Call `report-quiz-interactions` to determine an interaction-id to specify in the request. The interaction-id does not correspond to the question number in the quiz (for example, question 1, question 2, and so on).
Request URL
http://server_name/api/xml
   ?action=report-quiz-question-answer-distribution
   &interaction-id=integer
   &sco-id=integer
   &filter-definition=value
   &sort-definition=value
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>interaction-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID that describes all of one user’s responses to one quiz question.</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a presentation or course that contains a quiz.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code=allowedValue />
   <report-quiz-question-answer-distribution>
      <row display-seq=integer interaction-id=integer score=integer asset-id=integer num-selected=integer>
         <response>string</response>
      </row>
   </report-quiz-question-answer-distribution>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-quiz-question-answer-distribution</td>
<td></td>
<td>Container</td>
<td>The list of questions and answers.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Information about one user, one question, and one answer.</td>
</tr>
<tr>
<td></td>
<td>display-seq</td>
<td>Integer</td>
<td>The sequence number of the question in the quiz.</td>
</tr>
</tbody>
</table>
### Sample request

```
https://example.com/api/xml
?action=report-quiz-question-answer-distribution&sco-id=2006334909
```

### Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-quiz-question-answer-distribution>
    <row display-seq="1" interaction-id="2006334913" score="0"
      asset-id="2006334911" num-selected="1">
      <response>san francisco</response>
    </row>
    <row display-seq="1" interaction-id="2006334913" score="10"
      asset-id="2006334911" num-selected="2">
      <response>Sacramento</response>
    </row>
    <row display-seq="2" interaction-id="2006334914" score="0"
      asset-id="2006334911" num-selected="1">
      <response>false</response>
    </row>
    ...
  </report-quiz-question-answer-distribution>
</results>
```

### report-quiz-question-distribution

**Availability**

Breeze 4
Description
Returns information about the number of correct and incorrect answers to the questions on a quiz. This call can help you determine how a group responded to a quiz question overall.

Because this call returns information about all the questions on a quiz, you may want to filter the results for a specific question or group of questions.

Request URL
http://server_name/api/xml
?action=report-quiz-question-distribution
&sco-id=integer
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a presentation that contains a quiz.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-quiz-question-distribution>
    <row display-seq=integer interaction-id=integer num-correct=integer
      num-incorrect=integer total-responses=integer
      percentage-correct=integer score=integer>
      <name>string</name>
      <description>string</description>
    </row>
    ...
  </report-quiz-question-distribution>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Attribute</td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
</tbody>
</table>
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Sample request

https://example.com/api/xml?action=report-quiz-question-distribution
&SCO-ID=2006334909&filter-like-description=The%20capital%20of%20California

Sample response

<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-quiz-question-distribution>
    <row display-seq="1" interaction-id="2006334913" num-correct="2"
         num-incorrect="1" total-responses="3" percentage-correct="66"
         score="10">
      <name>The capital of California is<1></name>
      <description>The capital of California is<1></description>
    </row>
  </report-quiz-question-distribution>
</results>

report-quiz-question-response

Availability
Breeze 4
Description
Provides a list of answers that users have given to questions on a quiz.

Without filtering, this action returns all answers from any user to any question on the quiz. However, you can filter the response for a specific user, interaction, or answer (see the filter syntax at filter-definition).

An interaction is a combination of one user and one question. If the user answers the same question more than once, all answers are part of the same interaction and have the same interaction-id.

Request URL
http://server_name/api/xml
?action=report-quiz-question-response
&sco-id=integer
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a presentation that contains a quiz.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code=allowedValue />
    <report-quiz-question-response>
        <row principal-id=integer interaction-id=string>
            <user-name>string</user-name>
            <response>string</response>
            <date-created>datetime</date-created>
        </row>
    </report-quiz-question-response>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>
Sample request

https://example.com/api/xml?action=report-quiz-question-response
& sco-id=2006334909&filter-interaction-id=2006334913

Sample response

<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-quiz-question-response>
    <row principal-id="2006258745" interaction-id="2006334913">
      <user-name>Joy Smith</user-name>
      <response>Sacramento</response>
      <date-created>2006-05-11T15:50:23.643-07:00</date-created>
    </row>
    <row principal-id="2006258745" interaction-id="2006334913">
      <user-name>Joy Smith</user-name>
      <response>san francisco</response>
      <date-created>2006-05-11T17:32:53.970-07:00</date-created>
    </row>
    <row principal-id="2006258745" interaction-id="2006334913">
      <response>Sacramento</response>
      <date-created>2006-05-12T11:55:24.940-07:00</date-created>
    </row>
  </report-quiz-question-response>
</results>

report-quiz-summary

Availability
Breeze 4

Description
Provides a summary of data about a quiz, including the number of times the quiz has been taken; average, high, and low scores; and other information.
Request URL

http://server_name/api/xml
   ?action=report-quiz-summary
   &sco-id=integer
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a presentation that contains a quiz.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

Results cannot be filtered or sorted.

Response structure

<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code=allowedValue />
   <report-quiz-summary>
      <row num-questions=integer average-score=integer low-score=integer
           high-score=integer numtaken=integer numdistincttaken=integer
           maxpossiblescore=integer asset-id=integer />
   </report-quiz-summary>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Container</td>
<td></td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>Empty, with attributes</td>
<td>Allowed value</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td>Allowed value</td>
<td></td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-quiz-summary</td>
<td>Container</td>
<td></td>
<td>Contains information about the quiz.</td>
</tr>
<tr>
<td>row</td>
<td>Empty, with attributes</td>
<td>Summary information about the quiz. Can return more than one row element if the maxpossiblescore is different for different transcripts.</td>
<td></td>
</tr>
<tr>
<td>num-questions</td>
<td>Integer</td>
<td></td>
<td>The number of questions on the quiz.</td>
</tr>
<tr>
<td>average-score</td>
<td>Integer</td>
<td></td>
<td>The average score, across all users who have taken the quiz.</td>
</tr>
<tr>
<td>low-score</td>
<td>Integer</td>
<td></td>
<td>The lowest score a user has received on the quiz.</td>
</tr>
<tr>
<td>high-score</td>
<td>Integer</td>
<td></td>
<td>The highest score a user has received on the quiz.</td>
</tr>
<tr>
<td>numtaken</td>
<td>Integer</td>
<td></td>
<td>The total number of times the quiz has been taken.</td>
</tr>
</tbody>
</table>
Sample request

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
<status code="ok" />
<report-quiz-summary>
  <row num-questions="2" average-score="0" low-score="0" high-score="0"
numtaken="1" numdistincttaken="1" maxpossiblescore="0"
asset-id="2006334911" />
  <row num-questions="2" average-score="13" low-score="0" high-score="20"
numtaken="3" numdistincttaken="3" maxpossiblescore="20"
asset-id="2006334911" />
</report-quiz-summary>
</results>

report-quiz-takers

Availability
Breeze 4

Description
Provides information about all users who have taken a quiz in a training. Use a sco-id to identify the quiz.
To reduce the volume of the response, use any allowed filter or pass a type parameter to return information about just one type of SCO (courses, presentations, or meetings).

Request URL
http://server_name/api/xml
?action=report-quiz-takers
&sco-id=integer
&principal-id=integer
&type=allowedValue
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a presentation or course that contains a quiz.</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of a principal for whom you want quiz results.</td>
</tr>
<tr>
<td>type</td>
<td>Allowed value</td>
<td>N</td>
<td>The type of content for which you want results. Allowed values are course, presentation, and meeting.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-quiz-takers>
    <row transcript-id=integer sco-id=integer principal-id=integer status=allowedValue score=integer asset-id=integer permission-id=allowedValue attempts=integer time-taken=integer certificate=integer answered-survey=boolean version=integer>
      <name>string</name>
      <login>string</login>
      <date-created>datetime</date-created>
      <principal-name>string</principal-name>
      <override>boolean</override>
    </row>
  </report-quiz-takers>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Container</td>
<td></td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td>Allowed value</td>
<td></td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-quiz-takers</td>
<td>Container</td>
<td></td>
<td>Information about all users who have taken the quiz.</td>
</tr>
<tr>
<td>row</td>
<td>Container</td>
<td></td>
<td>Information about one user who has taken the quiz.</td>
</tr>
<tr>
<td>transcript-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the transcript on which the user’s quiz score is recorded.</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td></td>
<td>The unique ID of the presentation, course, or meeting that has the quiz.</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the user who took the quiz.</td>
</tr>
</tbody>
</table>
### Action reference

**Sample request**

```
https://example.com/api/xml?action=report-quiz-takers&sco-id=2006334909
```

**Sample response**

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-quiz-takers>
    <row transcript-id="2006337854" sco-id="2006334909"
       principal-id="2006258745" status="incomplete" score="0"
       max-score="20" asset-id="2006334911" permission-id=""
       attempts="4" time-taken="12593" certificate="" answered-survey="1"
       version="1">
      <name>California State Quiz</name>
      <login>joy@acme.com</login>
      <date-created>2006-05-16T11:14:47.000-07:00</date-created>
      <principal-name>Joy Smith</principal-name>
      <override>false</override>
    </row>
  </report-quiz-takers>
</results>
```

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>status</td>
<td>Allowed value</td>
<td>Whether the user passed or failed the most recent attempt at the quiz. Allowed values are user-passed and user-failed.</td>
<td></td>
</tr>
<tr>
<td>score</td>
<td>Integer</td>
<td>The user's score on the most recent attempt at the quiz.</td>
<td></td>
</tr>
<tr>
<td>asset-id</td>
<td>Integer</td>
<td>The ID of the version of the quiz the user attempted.</td>
<td></td>
</tr>
<tr>
<td>permission-id</td>
<td>Allowed value</td>
<td>The level of permission the user has to access the quiz (see permission-id for values).</td>
<td></td>
</tr>
<tr>
<td>attempts</td>
<td>Integer</td>
<td>The number of times the user has taken the quiz.</td>
<td></td>
</tr>
<tr>
<td>time-taken</td>
<td>Integer</td>
<td>The amount of time the user spent taking the quiz, in milliseconds.</td>
<td></td>
</tr>
<tr>
<td>certificate</td>
<td>Integer</td>
<td>The unique ID of a user's transcript.</td>
<td></td>
</tr>
<tr>
<td>answered-survey</td>
<td>Boolean</td>
<td>Whether the learner completed a quiz. If 0 or false, the training does not have a quiz or the learner did not complete it. If 1 or true, the learner completed the quiz.</td>
<td></td>
</tr>
<tr>
<td>version</td>
<td>Integer</td>
<td>The revision number of the quiz.</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td>The name of the quiz.</td>
<td></td>
</tr>
<tr>
<td>login</td>
<td>String</td>
<td>The user's login name on the server.</td>
<td></td>
</tr>
<tr>
<td>date-created</td>
<td>Datetime</td>
<td>The date and time of the user's most recent quiz attempt.</td>
<td></td>
</tr>
<tr>
<td>principal-name</td>
<td>String</td>
<td>The full name of the user taking the quiz.</td>
<td></td>
</tr>
<tr>
<td>override</td>
<td>Boolean</td>
<td>A setting indicating whether a training manager can change the user's score on the quiz.</td>
<td></td>
</tr>
</tbody>
</table>
**report-quotas**

**Availability**
Breeze 4

**Description**
Returns information about the quotas that apply to your Adobe Connect license or Adobe Connect hosted account. Adobe Connect enforces various quotas, for example, the number of concurrent users in training, the number of downloads, the number of authors, and so on.

Although your server license determines certain quotas, you can scale your license beyond your limit. In the response from `report-quotas`, the soft-limit is the number defined by your license. The soft-limit is the same as the limit, unless you purchase a Burst Pack for meetings, which allows additional participants to join past the limit, on an overage basis.

**Request URL**

http://server_name/api/xml
?action=report-quotas
&session=BreezeSessionCookieValue

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.

**Response structure**

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-quotas>
    <quota acl-id=integer quota-id=string used=integer
      limit=allowedValue soft-limit=integer>
      <date-begin>datetime</date-begin>
      <date-end>datetime</date-end>
    </quota>
  </report-quotas>
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
</tbody>
</table>
Using Adobe Connect 8 Web Services

Action Reference

Sample request
https://example.com/api/xml?action=report-quotas

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok" />
    <report-quotas>
        <quota acl-id="624520" quota-id="download-quota"
            used="1" limit="unlimited" soft-limit="1000000000">
            <date-begin>2004-03-09T09:45:41.047-08:00</date-begin>
            <date-end>3000-01-01T00:00:00.000-08:00</date-end>
        </quota>
        <quota acl-id="624520" quota-id="bandwidth-quota" used="12802"
            limit="unlimited" soft-limit="1000000000">
            <date-begin>2006-05-31T17:00:00.943-07:00</date-begin>
            <date-end>2006-06-30T17:00:00.943-07:00</date-end>
        </quota>
    </report-quotas>
</results>

report-sco-slides

Availability
Breeze 4

Description
Returns information about the slides in a presentation. The information includes how many times, and how recently, each slide has been viewed.
Request URL

http://server_name/api/xml
   ?action=report-sco-slides
   &sco-id=integer
   &asset-id=integer
   &sort-definition=value
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a presentation.</td>
</tr>
<tr>
<td>asset-id</td>
<td>Integer</td>
<td>N</td>
<td>The version number of a presentation, incremented each time a presentation is uploaded.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

You can sort the response on any element or attribute it contains.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-sco-slides>
    <row slide=integer name=integer asset-id=integer views=integer>
      <date-created>datetime</date-created>
    </row>
    ...
  </report-sco-slides>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-sco-slides</td>
<td></td>
<td>Container</td>
<td>Information about all of the slides in a presentation, indicating how many times and how recently a slide has been viewed.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Information about one slide in the presentation.</td>
</tr>
<tr>
<td>slide</td>
<td></td>
<td>Integer</td>
<td>The number of the slide within the presentation.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>Integer</td>
<td>The name of the slide in the presentation.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-sco-slides&sco-id=2006334909

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-sco-slides>
    <row slide="1" name="1" views="4">    
      <date-created>2006-05-16T11:14:54.453-07:00</date-created>
    </row>
    <row slide="2" name="2" views="4">    
      <date-created>2006-05-16T11:14:59.593-07:00</date-created>
    </row>
    <row slide="3" name="3" views="3">    
      <date-created>2006-05-12T11:55:52.330-07:00</date-created>
    </row>
    <row slide="4" name="4" views="3">    
      <date-created>2006-05-12T11:55:55.487-07:00</date-created>
    </row>
    <row slide="5" name="5" views="3">    
      <date-created>2006-05-12T11:56:00.233-07:00</date-created>
    </row>
  </report-sco-slides>
</results>

See also
report-sco-views

report-sco-views

Availability
Breeze 4

Description
Indicates how many times, and how recently, a SCO was viewed.

Request URL
http://server_name/api/xml
  ?action=report-sco-views
  &sco-id=integer
  &session=BreezeSessionCookieValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a SCO to check for views.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

Results cannot be filtered or sorted.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code=allowedValue />
    <report-sco-views sco-id=integer type=allowedValue is-folder=boolean views=integer>
        <name>string</name>
        <last-viewed-date>string</last-viewed-date>
    </report-sco-views>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-sco-views</td>
<td></td>
<td>Container</td>
<td>Information about how many times, and how recently, the presentation was viewed.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of the presentation.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of content object (SCO). Allowed values are content, curriculum, event, folder, link, meeting, and tree.</td>
</tr>
<tr>
<td>is-folder</td>
<td></td>
<td>Boolean</td>
<td>A value indicating whether the SCO is a folder (if 1) or another type of object (if 0).</td>
</tr>
<tr>
<td>views</td>
<td></td>
<td>Integer</td>
<td>The number of times users have viewed the SCO.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The name of the SCO.</td>
</tr>
<tr>
<td>last-viewed-date</td>
<td></td>
<td>Datetime</td>
<td>The date and time the SCO was last viewed.</td>
</tr>
</tbody>
</table>

Sample request

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-sco-views sco-id="2006334909" type="content" is-folder="0" views="3">
    <name>Quiz on California</name>
    <last-viewed-date>2006-05-12T11:55:24.940-07:00</last-viewed-date>
  </report-sco-views>
</results>

report-user-trainings-taken

Availability
Connect Enterprise 6

Description
Returns a list of all courses and curriculums a user has taken, whether or not the user has completed the training. Each course or curriculum is returned in a separate row element and has the most recent transcript of the user’s scores.

Request URL
http://server_name/api/xml
  ?action=report-user-trainings-taken
  &principal-id=integer
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a user for whom you want a list of trainings.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter or sort the response on any element or attribute it contains.
Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="allowedValue"/>
    <report-user-trainings-taken>
        <row transcript-id="integer" max-retries="integer" sco-id="integer"
            type="allowedValue" icon="allowedValue" status="allowedValue"
            certificate="integer" score="integer" permission-id="allowedValue"
            attempts="allowedValue">
            <name>string</name>
            <description>string</description>
            <url-path>string</url-path>
            <date-taken>datetime</date-taken>
            <from-curriculum>boolean</from-curriculum>
        </row>
        ...
    </report-user-trainings-taken>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of the SCO. Allowed values are user-content, content, and my-content.</td>
</tr>
<tr>
<td>report-user-trainings-taken</td>
<td>Container</td>
<td></td>
<td>A list of all trainings the user has attempted.</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Information about one course or curriculum the user has taken, whether or not passed.</td>
</tr>
<tr>
<td>transcript-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the record of the user's most recent score on this training.</td>
</tr>
<tr>
<td>max-retries</td>
<td></td>
<td>Integer</td>
<td>The maximum number of times the user can repeat the training.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the training SCO.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of the training SCO (see allowed values at type).</td>
</tr>
<tr>
<td>icon</td>
<td></td>
<td>Allowed value</td>
<td>The type of icon that identifies the course or curriculum in Connect Central. Provides information about the course or curriculum in addition to its type (see allowed values at icon).</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Allowed value</td>
<td>The status of the user's work with the SCO. Allowed values for a course or presentation are user-passed, user-failed, completed, incomplete, not-attempted, and review. A curriculum or folder can only be completed or incomplete.</td>
</tr>
<tr>
<td>certificate</td>
<td></td>
<td>Integer</td>
<td>The ID of the record that shows the user passed or completed the training.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=report-user-trainings-taken
&principal-id=2006258745&principal-id=4797406

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-user-trainings-taken>
    <row transcript-id="2006745722" max-retries="" sco-id="2006745673"
      type="content" icon="course" status="user-passed"
      certificate="2006745722" score="0" permission-id=""
      attempts="1">
      <name>All About Web Communities</name>
      <description>test</description>
      <url-path>/p33096345/</url-path>
      <date-taken>2006-06-12T15:06:02.947-07:00</date-taken>
      <from-curriculum>false</from-curriculum>
    </row>
  ...
  </report-user-trainings-taken>
</results>

report-user-training-transcripts

Availability
Connect Enterprise 6

Description
Returns a list of transcripts for trainings a user has taken. A transcript is the record of one score a user obtained from one attempt at taking one training. A training can be a course, curriculum, meeting, or event.
The response can include more than one transcript for a training SCO, if the user has attempted the training more than once. A user can fail a training the first time and then pass on the second attempt. Each attempt has its own transcript, and both transcripts are included in the report.

Request URL

http://server_name/api/xml
  ?action=report-user-training-transcripts
  &principal-id=integer
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of a user whose transcripts you want.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

You can filter or sort the response on any element or attribute it contains.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <report-user-training-transcripts>
    <row transcript-id=integer sco-id=integer
           principal-id=integer status=allowedValue score=integer
           max-score=integer certificate=integer type=allowedValue
           icon=allowedValue>
      <name>string</name>
      <url-path>string</url-path>
      <login>string</login>
      <date-taken>datetime</date-taken>
      <principal-name>string</principal-name>
      <sco-tag>string</sco-tag>
    </row>
    ...
  </report-user-training-transcripts>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td>Attribute</td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>report-user-training-transcripts</td>
<td></td>
<td>Container</td>
<td>Information about all transcripts for the specified user.</td>
</tr>
<tr>
<td>Element</td>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>row</td>
<td></td>
<td>Container</td>
<td>Information about one attempt the user made on the training.</td>
</tr>
<tr>
<td>transcript-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the transcript on which the user’s score is recorded. A distinct</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td></td>
<td>transcript exists for each of the user's attempts at taking the SCO.</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td></td>
<td>The ID of the user.</td>
</tr>
<tr>
<td>status</td>
<td>Allowed value</td>
<td></td>
<td>The status of the user's work with the SCO (see status attribute for</td>
</tr>
<tr>
<td>score</td>
<td>Integer</td>
<td></td>
<td>allowed values).</td>
</tr>
<tr>
<td>max-score</td>
<td>Integer</td>
<td></td>
<td>The maximum score possible on the course or curriculum.</td>
</tr>
<tr>
<td>certificate</td>
<td>Integer</td>
<td></td>
<td>The ID of the record of the courses and curriculums the user has passed or</td>
</tr>
<tr>
<td>type</td>
<td>Allowed value</td>
<td></td>
<td>completed.</td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td></td>
<td>The name of the course or curriculum.</td>
</tr>
<tr>
<td>url-path</td>
<td>String</td>
<td></td>
<td>The unique identifier of the course or curriculum that appears in its URL</td>
</tr>
<tr>
<td>login</td>
<td>String</td>
<td></td>
<td>The user's login ID on Adobe Connect Server.</td>
</tr>
<tr>
<td>date-taken</td>
<td>Datetime</td>
<td></td>
<td>The date the user interacted with the course or curriculum (viewed a</td>
</tr>
<tr>
<td>principal-name</td>
<td>String</td>
<td></td>
<td>presentation, took a quiz, and so on).</td>
</tr>
<tr>
<td>sco-tag</td>
<td>String</td>
<td></td>
<td>A descriptive label for the SCO, in addition to the name (for example, a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>short course name).</td>
</tr>
</tbody>
</table>

**Sample request**

https://example.com/api/xml?action=report-user-training-transcripts

&principal-id=2006258745
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-user-training-transcripts>
    <row transcript-id="2006905612" sco-id="2006298431"
      principal-id="2006258745" status="review" score="0" max-score=""
      certificate="" type="content" icon="course">
      <name>Test Course</name>
      <url-path>/test/</url-path>
      <login>joy@acme.com</login>
      <date-taken>2006-06-30T15:23:55.070-07:00</date-taken>
      <principal-name>Joy Smith</principal-name>
    </row>
    <row transcript-id="2007016805" sco-id="2006298431"
      principal-id="2006258745" status="review" score="0" max-score=""
      certificate="" type="content" icon="course">
      <name>Test Course</name>
      <url-path>/test/</url-path>
      <login>joy@acme.com</login>
      <date-taken>2006-07-14T16:55:28.440-07:00</date-taken>
      <principal-name>Joy Smith</principal-name>
    </row>
  </report-user-training-transcripts>
</results>
```

sco-by-url

**Availability**

Connect Pro 7

**Description**

Returns information about a SCO at a specified URL path. The URL path is the unique identifier after the domain name in the URL to the SCO. For example, if you have a meeting with the custom URL http://example.acrobat.com/teammeeting, the URL path is /teammeeting. If you pass the full URL path, Connect returns the status code "no data".

**Request URL**

http://server_name/api/xml?action=sco-by-url &url-path=url

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>url-path</td>
<td>Y</td>
<td>The unique identifier after the domain name in the URL to the SCO.</td>
</tr>
</tbody>
</table>

**Filters**

You cannot filter or sort the response.
Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="allowedValue" />
    <owner-principal type="allowedValue" principal-id="number" account-id="number" has-
        children="Boolean" is-hidden="Boolean" is-primary="Boolean">
        <ext-login /></ext-login>
        <login /></login>
        <name /></name>
        <email /></email>
    </owner-principal>
    - <sco sco-id="number" account-id="number" display-seq="number" folder-id="number"
        icon="string" lang="string" max-retries="number" source-sco-id="number" type="allowedValue"
        version="number">
        <url-path /></url-path>
        <date-begin /></date-begin>
        <date-created /></date-created>
        <date-modified /></date-modified>
        <name /></name>
    </sco>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>owner-principal</td>
<td></td>
<td>Container</td>
<td>Contains information about a principal.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of principal (see type for values).</td>
</tr>
<tr>
<td>principal-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the principal.</td>
</tr>
<tr>
<td>account-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the account the principal belongs to.</td>
</tr>
<tr>
<td>has-children</td>
<td></td>
<td>Boolean</td>
<td>Whether the principal has children. Groups have children and users don't, so this attribute indicates whether the principal is a group.</td>
</tr>
<tr>
<td>is-hidden</td>
<td></td>
<td>Boolean</td>
<td>Whether the principal is hidden (true) or not (false) in Connect Central or your application.</td>
</tr>
<tr>
<td>is-primary</td>
<td></td>
<td>Boolean</td>
<td>Whether the principal is a built-in group (true) or not (false).</td>
</tr>
<tr>
<td>ext-login</td>
<td></td>
<td>String</td>
<td>The login ID sent from an external network. By default, the same value as login.</td>
</tr>
<tr>
<td>login</td>
<td></td>
<td>String</td>
<td>The login name of the user who is logged in to the server, often the user's e-mail address.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The name of the user who is logged in to the server.</td>
</tr>
<tr>
<td>e-mail</td>
<td></td>
<td>String</td>
<td>The e-mail address of the user who is logged in to the server.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>One object within the folder.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of an object.</td>
</tr>
</tbody>
</table>
Sample request
http://example.acrobat.com/api/xml?action=sco-by-url&url-path=/p18656190/

Sample response
<results>
  <status code="ok" />
  <owner-principal type="content" principal-id="824622254" account-id="824592506" has-
  children="false" is-hidden="false" is-primary="false">
    <ext-login>jdoe@adobe.com</ext-login>
    <login>jdoe@adobe.com</login>
    <name>Jane Doe</name>
    <email>jdoe@adobe.com</email>
  </owner-principal>
  - <sco sco-id="825344405" account-id="824592506" display-seq="0" folder-id="824622258"
    icon="curriculum" lang="en" max-retries="" source-sco-id="" type="curriculum" version="0">
    <url-path>/p18656190/</url-path>
    <date-begin>2009-09-15T13:30:00.000-07:00</date-begin>
    <date-created>2009-09-15T13:32:45.683-07:00</date-created>
    <date-modified>2009-09-15T13:32:45.683-07:00</date-modified>
    <name>Test Curriculum</name>
  </sco>
</results>
sco-contents

Availability
Breeze 4

Description
Returns a list of SCOs within another SCO. The enclosing SCO can be a folder, meeting, or curriculum.

In general, the contained SCOs can be of any type—meetings, courses, curriculums, content, events, folders, trees, or links (see the list in type). However, the type of the contained SCO needs to be valid for the enclosing SCO. For example, courses are contained within curriculums, and meeting content is contained within meetings.

Because folders are SCOs, the returned list includes SCOs and subfolders at the next hierarchical level, but not the contents of the subfolders. To include the subfolder contents, call sco-expanded-contents.

Request URL
http://server_name/api/xml
   ?action=sco-contents
   &sco-id=integer
   &filter-definition=value
   &sort-definition=value
   &session=value

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a folder for which you want to list contents. You can get the sco-id by calling sco-shortcuts.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter the response on any element or attribute, with these exceptions:

- You cannot filter on duration.
- If you use filter-date-begin, filter-date-end, or filter-date-modified, specify a time without a time zone, for example:

  filter-date-modified=2005-01-05T10:44:03

You can use filter-gt or filter-lt with a date field and a full date, including the time zone.

You can sort the response on any element or attribute.
Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="allowedValue" />
  <scos>
    <sco sco-id="integer" source-sco-id="integer" folder-id="integer"
      type="allowedValue" icon="allowedValue" display-seq="integer"
      is-folder="boolean" byte-count="integer" ref-count="integer">
      <name>string</name>
      <url-path>string</url-path>
      <description>string</description>
      <date-begin>string</date-begin>
      <date-modified>datetime</date-modified>
      <date-end>string</date-end>
      <sco-tag>string</sco-tag>
    </sco>
  </scos>
</results>

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>scos</td>
<td></td>
<td>Container</td>
<td>The list of objects within the folder.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>One object within the folder.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of one object within the folder.</td>
</tr>
<tr>
<td>source-sco-id</td>
<td>Integer</td>
<td>The unique ID of a content SCO used in a course or curriculum.</td>
<td></td>
</tr>
<tr>
<td>folder-id</td>
<td>Integer</td>
<td>The ID of a folder, passed as sco-id in the request.</td>
<td></td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of the object (see type for values). SCOs that represent content have a type of content, rather than a more specific type, such as presentation.</td>
</tr>
<tr>
<td>icon</td>
<td></td>
<td>Allowed value</td>
<td>The name of the icon that identifies the object. Provides more detail on the type of object in type.</td>
</tr>
<tr>
<td>display-seq</td>
<td>Integer</td>
<td>The sequence in which Connect Central or your application displays the object.</td>
<td></td>
</tr>
<tr>
<td>is-folder</td>
<td>Boolean Integer</td>
<td>A value indicating whether the object is a folder (1) or not (0).</td>
<td></td>
</tr>
<tr>
<td>byte-count</td>
<td>Integer</td>
<td>The size of the content. For folders, this value will be 0.</td>
<td></td>
</tr>
<tr>
<td>ref-count</td>
<td>Integer</td>
<td>The number of SCOs that reference this SCO.</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The name of the object on the server.</td>
</tr>
<tr>
<td>url-path</td>
<td></td>
<td>String</td>
<td>The unique identifier after the domain name in the URL to the SCO.</td>
</tr>
<tr>
<td>description</td>
<td>String</td>
<td>The description of the object.</td>
<td></td>
</tr>
<tr>
<td>date-modified</td>
<td>Datetime</td>
<td>The date the object was last modified.</td>
<td></td>
</tr>
</tbody>
</table>
Sample request

https://example.com/api/xml?action=sco-contents&sco-id=2006258748

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <scos>
    <sco sco-id="2007035246" source-sco-id="2006334909"
      folder-id="2006258748" type="content" icon="course"
      display-seq="0" is-folder="0">
      <name>Java 101</name>
      <url-path>/java101/</url-path>
      <date-begin>2006-07-20T17:15:00.000-07:00</date-begin>
      <date-modified>2006-07-20T17:21:38.860-07:00</date-modified>
    </sco>
  </scos>
</results>
```

See also

sco-expanded-contents, sco-shortcuts

### sco-delete

#### Availability

Breeze 4

#### Description

Deletes one or more objects (SCOs).

If the sco-id you specify is for a folder, all the contents of the specified folder are deleted. To delete multiple SCOs, specify multiple sco-id parameters.

You can use a call such as sco-contents to check the ref-count of the SCO, which is the number of other SCOs that reference this SCO. If the SCO has no references, you can safely remove it, and the server reclaims the space.

If the SCO has references, removing it can cause the SCOs that reference it to stop working, or the server not to reclaim the space, or both. For example, if a course references a quiz presentation, removing the presentation might make the course stop working.
As another example, if a meeting has used a content SCO (such as a presentation or video), there is a reference from the meeting to the SCO. Deleting the content SCO does not free disk space, because the meeting still references it.

To delete a SCO, you need at least manage permission (see permission-id for details). Users who belong to the built-in authors group have manage permission on their own content folder, so they can delete content within it.

Request URL

http://server_name/api/xml
?action=sco-delete
&sco-id=integer
&session=value

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a SCO.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREESESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

Results cannot be filtered or sorted.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=sco-delete&sco-id=2007171127

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

See also

sco-info, sco-move, sco-nav, sco-expanded-contents
**sco-expanded-contents**

**Availability**
Breeze 5

To list the contents of a curriculum in Connect Pro 7 and later, use `curriculum-contents`.

**Description**
Lists all of the SCOs in a folder, including the contents of subfolders, curriculums, and any type of enclosing SCO.

*Note: If you call this command on a large folder—such as the root meeting folder for a large account—the amount of data returned is very large.*

If you do not use a filter, the list of SCOs is returned in the same order as it appears in Connect Central. If you use a filter or a sort, the list is returned according to the filter or sort you use.

**Request URL**

```
http://server_name/api/xml

?action=sco-expanded-contents
&sco-id=integer
&filter-definition=value
&sort-definition=value
&session=BreezeSessionCookieValue
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a folder.</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**
You can filter the response on any element or attribute, with these exceptions:

- You cannot filter on `duration`.
- If you use `filter-date-begin`, `filter-date-end`, or `filter-date-modified`, specify a date in ISO 8601 format but without a time zone, for example:
  
  `filter-date-modified=2005-01-05T10:44:03`

  However, you can use `filter-gt-datefield` or `filter-lt-datefield` with a full date that includes a time zone.
- Do not use partial match filters constructed with `filter-like` (such as `filter-like-name`), as they might affect server performance.

You can sort the response on any element or attribute except `date-begin`, `date-created`, `date-modified`, and `url-path`. 
Response structure
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <expanded-scos>
    <sco depth=integer sco-id=integer folder-id=integer type=allowedValue
      icon=allowedValue lang=allowedValue source-sco-id=integer
      display-seq=integer source-sco-type=integer>
      <name>string</name>
      <url-path>string</url-path>
      <date-created>datetime</date-created>
      <date-modified>datetime</date-modified>
    </sco>
    ... more sco elements ...
  </expanded-scos>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>expanded-scos</td>
<td></td>
<td>Container</td>
<td>The list of all SCOs the folder contains.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Details about one SCO in the folder. This SCO can be a folder or any other type of object.</td>
</tr>
<tr>
<td>depth</td>
<td></td>
<td>Integer</td>
<td>The depth in the content tree at which this object appears, with top-level objects at 1.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of the SCO. If the SCO is a folder, same as folder-id.</td>
</tr>
<tr>
<td>folder-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the folder the SCO belongs to.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of this content object (see type).</td>
</tr>
<tr>
<td>icon</td>
<td></td>
<td>Allowed value</td>
<td>The name of the icon that visually identifies this object.</td>
</tr>
<tr>
<td>lang</td>
<td></td>
<td>Allowed value</td>
<td>The language in which information about the SCO is displayed (see lang for values).</td>
</tr>
<tr>
<td>source-sco-id</td>
<td></td>
<td>Integer</td>
<td>The ID of a SCO from which this SCO was created, such as a meeting template or course content.</td>
</tr>
<tr>
<td>display-seq</td>
<td></td>
<td>Integer</td>
<td>The sequence in which Connect Central (or your application, if you use this value) displays a list of SCOs. Values are not necessarily unique, so multiple SCOs can have the same display-seq value. In that case, the application must define the display sequence. The default is 0.</td>
</tr>
<tr>
<td>source-sco-type</td>
<td></td>
<td>Integer</td>
<td>An integer indicating the type of the SCO from which this SCO was created.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=sco-expanded-contents&sco-id=624529
Sample response
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <expanded-scos>
    <sco depth="0" sco-id="624529" folder-id="624520" type="folder"
      icon="folder" lang="en" source-sco-id="" display-seq="0"
      source-sco-type="">
      <name>Shared Meetings</name>
      <url-path>/f624529/</url-path>
      <date-created>2004-03-09T09:45:41.060-08:00</date-created>
      <date-modified>2005-03-18T10:19:38.950-08:00</date-modified>
    </sco>
    <sco depth="1" sco-id="2598379" folder-id="624529" type="meeting"
      icon="meeting" lang="en" source-sco-id="-8888" display-seq="0"
      source-sco-type="3">
      <name>Monday Night Football</name>
      <url-path>/r68075204/</url-path>
      <description>Monday Night Football</description>
      <date-begin>2004-05-17T15:30:00.000-07:00</date-begin>
      <date-end>2004-05-18T00:15:00.000-07:00</date-end>
      <date-created>2004-05-17T15:30:00.000-07:00</date-created>
      <date-modified>2006-08-16T00:34:52.930-07:00</date-modified>
    </sco>
  </expanded-scos>
</results>
```

sco-info

Availability
Breeze 4

Description
Provides information about a SCO on Adobe Connect. The object can have any valid SCO type. See type for a list of the allowed SCO types.

The response includes the account the SCO belongs to, the dates it was created and last modified, the owner, the URL that reaches it, and other data. For some types of SCOs, the response also includes information about a template from which this SCO was created.

Request URL
http://server_name/api/xml
?action=sco-info
&sco-id=integer
&session=BREEZESESSIONCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a SCO on the server.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>
Filters
Results cannot be filtered or sorted.

Response structure
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue/>
  <sco account-id=integer disabled=datetime display-seq=integer
    folder-id=integer icon=allowedValue lang=allowedValue
    max-retries=integer sco-id=integer source-sco-id=integer
    type=allowedValue version=integer>
    <date-begin>datetime</date-begin>
    <date-created>datetime</date-created>
    <date-end>datetime</date-end>
    <date-modified>datetime</date-modified>
    <description>string</description>
    <name>string</name>
    <url-path>string</url-path>
    <passing-score>integer</passing-score>
    <duration>datetime</duration>
    <section-count>integer</section-count>
  </sco>
  <source-sco>
    <source-sco account-id=integer display-seq=integer folder-id=integer
      icon=allowedValue lang=allowedValue max-retries=integer
      sco-id=integer source-sco-id=integer type=allowedValue
      version=integer>
      <date-created>datetime</date-created>
      <date-modified>datetime</date-modified>
      <name>string</name>
      <url-path>string</url-path>
    </source-sco>
  </source-sco>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Information about the SCO.</td>
</tr>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>The ID of the account the SCO belongs to.</td>
<td></td>
</tr>
<tr>
<td>disabled</td>
<td>Datetime</td>
<td>An empty value if the SCO has not been disabled. If it has, the date and time it was disabled.</td>
<td></td>
</tr>
<tr>
<td>display-seq</td>
<td>Integer</td>
<td>The sequence in which Connect Central (or your application, if you use this value) displays a list of SCOs. Values are not necessarily unique, so multiple SCOs can have the same display-seq value. In that case, the application must define the display sequence. The default is 0.</td>
<td></td>
</tr>
<tr>
<td>Element</td>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>folder-id</td>
<td>Integer</td>
<td>The ID of the folder the SCO belongs to.</td>
</tr>
<tr>
<td></td>
<td>icon</td>
<td>Allowed value</td>
<td>The type of icon used as a visual identifier for the SCO (see icon).</td>
</tr>
<tr>
<td></td>
<td>lang</td>
<td>Allowed value</td>
<td>An abbreviation for the new language (see type for values).</td>
</tr>
<tr>
<td></td>
<td>max-retries</td>
<td>Integer</td>
<td>The number of times the user is allowed to attempt to take the SCO.</td>
</tr>
<tr>
<td></td>
<td>sco-id</td>
<td>Integer</td>
<td>The unique ID of the SCO.</td>
</tr>
<tr>
<td></td>
<td>source-sco-id</td>
<td>Integer</td>
<td>The unique ID of a template from which the SCO is derived.</td>
</tr>
<tr>
<td></td>
<td>type</td>
<td>Allowed value</td>
<td>The content type of the SCO (see type for values). type is a high-level category. icon provides more detail on the type of content.</td>
</tr>
<tr>
<td></td>
<td>version</td>
<td>Integer</td>
<td>The version number of the SCO, incremented when the object is modified or uploaded to the server.</td>
</tr>
<tr>
<td></td>
<td>date-begin</td>
<td>Datetime</td>
<td>If the SCO is a meeting, the date and time the meeting starts.</td>
</tr>
<tr>
<td></td>
<td>date-created</td>
<td>Datetime</td>
<td>The date and time the SCO was created (or, for content, uploaded).</td>
</tr>
<tr>
<td></td>
<td>date-end</td>
<td>Datetime</td>
<td>If the SCO is a meeting, the date and time the meeting ends.</td>
</tr>
<tr>
<td></td>
<td>date-modified</td>
<td>Datetime</td>
<td>The date and time the SCO was last modified.</td>
</tr>
<tr>
<td></td>
<td>description</td>
<td>String</td>
<td>The description of the SCO entered when the SCO was created.</td>
</tr>
<tr>
<td></td>
<td>name</td>
<td>String</td>
<td>The name of the SCO.</td>
</tr>
<tr>
<td></td>
<td>url-path</td>
<td>String</td>
<td>The path to the SCO on the server.</td>
</tr>
<tr>
<td></td>
<td>passing-score</td>
<td>Integer</td>
<td>The minimum score that a user must have to pass a training course.</td>
</tr>
<tr>
<td></td>
<td>duration</td>
<td>Integer</td>
<td>The length of time needed to view or play the SCO, in milliseconds.</td>
</tr>
<tr>
<td></td>
<td>section-count</td>
<td>Integer</td>
<td>The number of sections in the course content, including the number of slides, pages, chapters, interactions, or other content divisions.</td>
</tr>
<tr>
<td></td>
<td>source-sco</td>
<td>Container</td>
<td>Information about any SCOs that are templates for, or provide content to, the SCO you are interested in. The SCOs that can have a source are meetings, courses, or events.</td>
</tr>
<tr>
<td></td>
<td>source-sco</td>
<td>Container</td>
<td>Details about one SCO that is a template for, or provides source content to, the SCO you are interested in. Has additional elements and attributes, the same as the sco element.</td>
</tr>
</tbody>
</table>

Sample request
https://example.com/api/xml?action=sco-info&sco-id=2006320683
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <sco account-id="624520" disabled="" display-seq="0"
      folder-id="2006258750" icon="meeting" lang="en" max-retries=""
      sco-id="2006320683" source-sco-id="-1625529" type="meeting"
      version="0">
    <date-begin>2006-05-04T11:15:00.000-07:00</date-begin>
    <date-created>2006-05-04T11:27:47.087-07:00</date-created>
    <date-end>2006-05-04T12:15:00.000-07:00</date-end>
    <date-modified>2006-05-04T11:27:47.087-07:00</date-modified>
    <name>Technology and Law Review Meeting</name>
    <url-path>/tlawreview/</url-path>
  </sco>
  <source-sco>
    <source-sco account-id="624520" display-seq="0" folder-id="-625529"
      icon="meeting" lang="en" max-retries="" sco-id="-1625529"
      source-sco-id="-8888" type="meeting" version="0">
      <date-created>2004-10-05T00:49:30.217-07:00</date-created>
      <date-modified>2005-01-04T15:03:25.937-08:00</date-modified>
      <name>Default Meeting Template</name>
      <url-path>/defaultMeetingTemplate/</url-path>
    </source-sco>
  </source-sco>
</results>
```

**sco-move**

**Availability**
Breeze 4

**Description**
Moves a SCO from one folder to another.

To move a SCO to a folder, the current user must have permission to create content in the target folder. In general, users have permission on their own folders (such as my-meetings, my-courses, my-events, my-content, and my-meeting-templates) by default. To move SCOs to a shared folder such as content, courses, and meetings, a user must have Manage permission or be an Administrator.

**Request URL**
http://server_name/api/xml
  ?action=sco-move
  &folder-id=integer
  &sco-id=integer
  &session=BreezeSessionCookieValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>folder-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the destination folder.</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of the SCO to move.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

Results cannot be filtered or sorted.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=sco-move&sco-id=2006744233
&folder-id=2006258748

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

See also

sco-nav

sco-nav

Availability

Breeze 4

Description

Describes the folder hierarchy that contains a SCO.
The `sco-nav` call is useful for creating a navigation tree, breadcrumb trail, or any other type of user interface hierarchy. The response contains a list of `sco` elements, one for the SCO you are querying and one for each of its enclosing folders up to the top-level folder. The top-level folder is one of the list of folders returned by `sco-shortcuts`.

In each `sco` element, the `depth` attribute indicates how many hierarchical levels the SCO is from the SCO you specify in the request. A `depth` of 0 indicates the SCO you are querying, a `depth` of 1 indicates the folder that contains the SCO, and so on.

**Request URL**

```
http://server_name/api/xml
?action=sco-nav
&sco-id=integer
&session=BreezeSessionCookieValue
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a SCO for which you want a folder hierarchy up to the root level.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

**Filters**

Results cannot be filtered or sorted.

**Response structure**

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <sco-nav>
    <sco sco-id=integer type=allowedValue icon=allowedValue depth=integer>
      <name>string</name>
    </sco>
    ...
  </sco-nav>
</results>
```

**Response values**

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
<tr>
<td>sco-nav</td>
<td></td>
<td>Container</td>
<td>The entire navigation tree from the top-level folder to the SCO.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Information about one SCO in the hierarchy.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of the SCO.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of SCO (see <code>type</code> for values).</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=sco-nav&sco-id=2006334909

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <sco-nav>
    <sco sco-id="624522" type="folder" icon="folder" depth="2">
      <name>User Content</name>
    </sco>
    <sco sco-id="2006258747" type="folder" icon="folder" depth="1">
      <name>joy@acme.com</name>
    </sco>
    <sco sco-id="2006334909" type="content" icon="producer" depth="0">
      <name>Test Quiz</name>
    </sco>
  </sco-nav>
</results>

See also
sco-move

sco-search

Availability
Breeze 4

Description
Provides a list of all SCOs that have content matching the search text.

The sco-search action searches the content of some types of SCOs for the query string. The types of SCOs searched include presentation archives, meeting archives, and the presentation components of a course or curriculum. A presentation that is included in a course returns two sets of results, one for the actual presentation and one for the course. The search does not include the SCO name or any metadata about the SCO stored in the database.

The query is not case-sensitive and allows wildcards at the end of a query string. The allowed wildcards are:
- An asterisk (*) to match any character or characters
- A question mark (?) to match any one character

For example, you can use the query strings quiz, qu*, or qui?. However, you cannot use a wildcard at the beginning or within a query string.
You can also use the operators and and or to return multiple matches, with spaces separating the operator and the search terms, like this:

https://example.com/api/xml?action=sco-search&query=quiz or test

If you search on quiz or test, for example, the server interprets it as a literal string and returns only exact matches.

Request URL
http://server_name/api/xml
   ?action=sco-search
   &query=querystring
   &filter-definition=value
   &sort-definition=value
   &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>Query string</td>
<td>Y</td>
<td>A string to search for. To use any of these special characters in the query string, escape them with a backslash before the character: + - &amp;&amp;</td>
</tr>
<tr>
<td>filter-definition</td>
<td>Filter definition</td>
<td>N</td>
<td>A filter to reduce the volume of the response.</td>
</tr>
<tr>
<td>sort-definition</td>
<td>Sort definition</td>
<td>N</td>
<td>A sort to return results in a certain sequence.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
You can filter the response on any element or attribute it contains.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
   <status code=allowedValue />
   <sco-search-info>
      <sco sco-id=integer folder-id=integer type=allowedValue
         icon=allowedValue byte-count=integer tree-type=integer>
         <name>string</name>
         <url-path>string</url-path>
         <date-created>datetime</date-created>
         <date-modified>datetime</date-modified>
         <hit>integer</hit>
         <hit-type>allowedValue</hit-type>
         <thumbnail-path>string</thumbnail-path>
      </sco>
   </sco-search-info>
</results>
Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>sco-search-info</td>
<td></td>
<td>Container</td>
<td>The list of objects (SCOs) that match the search query.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Details about one object that matches the search.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of the SCO.</td>
</tr>
<tr>
<td>folder-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the folder in which the SCO is stored.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The content type assigned to the SCO (see type for values).</td>
</tr>
<tr>
<td>icon</td>
<td></td>
<td>Allowed value</td>
<td>The icon that visually identifies the SCO in a user interface.</td>
</tr>
<tr>
<td>byte-count</td>
<td></td>
<td>Integer</td>
<td>The size of the SCO, in bytes.</td>
</tr>
<tr>
<td>tree-type</td>
<td></td>
<td>Integer</td>
<td>The tree type.</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td>String</td>
<td>The file name of the SCO.</td>
</tr>
<tr>
<td>url-path</td>
<td></td>
<td>String</td>
<td>The unique identifier that comes after the domain name in the SCO URL.</td>
</tr>
<tr>
<td>date-created</td>
<td></td>
<td>Datetime</td>
<td>The date the SCO was created.</td>
</tr>
<tr>
<td>date-modified</td>
<td></td>
<td>Datetime</td>
<td>The date the SCO was modified.</td>
</tr>
<tr>
<td>hit</td>
<td></td>
<td>Integer</td>
<td>The sequence number of this occurrence of the query string in the SCO.</td>
</tr>
<tr>
<td>hit-type</td>
<td></td>
<td>Allowed value</td>
<td>The type of content in which the search term was found. Allowed values are metadata and slide.</td>
</tr>
<tr>
<td>hit-url</td>
<td></td>
<td>String</td>
<td>A relative URL to the position where the search term was found in the content, for example, to a specific slide. Must be appended to the url-path.</td>
</tr>
<tr>
<td>thumbnail-path</td>
<td></td>
<td>String</td>
<td>A relative URL to an image of the SCO that contains the search term.</td>
</tr>
</tbody>
</table>

Sample request

https://example.com/api/xml?action=sco-search&query=quiz
Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <sco-search-info>
    <sco sco-id="5677964" folder-id="2562850" type="content"
      icon="producer" byte-count="5985" tree-type="13">
      <name>Final Quiz</name>
      <url-path>/p46125962/</url-path>
      <date-created>2005-05-09T14:24:36.390-07:00</date-created>
      <date-modified>2005-05-09T14:24:36.390-07:00</date-modified>
      <hit>0</hit>
      <hit-type>metadata</hit-type>
    </sco>
    <sco sco-id="5677964" folder-id="2562850" type="content"
      icon="producer" byte-count="5985">
      <name>Final Quiz</name>
      <url-path>/p46125962/</url-path>
      <date-created>2005-05-09T14:24:36.390-07:00</date-created>
      <date-modified>2005-05-09T14:24:36.390-07:00</date-modified>
      <hit>7</hit>
      <hit-type>slide</hit-type>
      <hit-url>slide=7</hit-url>
    </sco>
  ...
  </sco-search-info>
</results>

sco-search-by-field

Availability
Acrobat Connect Pro 7

Description
Provides a list of all SCOs matching the search text within the specified field. This action allows you to search for objects in the database based on the SCO’s name, description, or author, or all three of those fields.

The sco-search-by-field action searches the content of some types of SCOs for the query string. The search includes folders, training courses, curriculums, meetings, content, and archives.

To search for multi-word terms with spaces between the words, search only on the first word in the term and use a wildcard at the end. For example, to search for Sales Presentation, use the following string:

```
query=sales*
```

Note: The sco-search-by-field command does not support the and/or operators.

Request URL
http://server_name/api/xml
  ?action=sco-search-by-field
  &query=SearchTerm
  &field=allowedValue
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>query</td>
<td>String</td>
<td>Y</td>
<td>The term to search for within the specified field. The query is case-insensitive.</td>
</tr>
</tbody>
</table>
| field         | String  | N        | The field to search. Accepts four possible values: name, description, author, or allfields:  
- name searches only the name field for SCOs.  
- description searches only the description field for SCOs.  
- author matches the full name field (not the first-name or last-name fields) of the principal that created the SCOs.  
- allfields searches the name, description, and author fields. If this parameter is omitted, the name field is searched. |

Filters

Filters are supported on any field that can be returned. For example, you can use

&filter-gt-date-created=2007-09-12T08:00:00.000

if you want to show only results created after 8:00 AM on September 12, 2007.

Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <sco-search-info>
    <sco
      sco-id=integer
      tree-id=integer
      folder-id=integer
      type=allowedValue
      status=allowedValue
      sco-data-id=integer
      source-sco-id=integer
      host-id=integer
      author-contact-id=integer
      learning-time=allowedValue
      lang=allowedValue
      seq-id=integer
      icon=allowedValue
      display-seq=integer
      max-retries=integer
      version=integer
      account-id=integer
      tree-type=integer>
      <name>string</name>
      <url-path>string</url-path>
      <date-created>datetime</date-created>
      <date-modified>datetime</date-modified>
      <principal-name>string</principal-name>
      <folder-name>string</folder-name>
    </sco>
  </sco-search-info>
</results>
```

Response value

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>sco-search-by-field-info</td>
<td></td>
<td>Container</td>
<td>The list of objects (SCOs) that match the search query.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Details about one object that matches the search.</td>
</tr>
</tbody>
</table>
USING ADOBE CONNECT 8 WEB SERVICES

Action reference

Sample request

https://example.com/api/xml?action=sco-search-by-field&query=Marketing*&field=description

Sample response

```xml
<results>
  <sco-search-by-field-info>
    <sco sco-id="200775205" tree-id="" folder-id="2007470298" type="meeting" status="" sco-data-id="" source-sco-id="2007470292" host-id="" author-contact-id="" learning-time="" lang="en" seq-id="" icon="virtual-classroom" display-seq="0" max-retries="" version="0" account-id="2007470268" tree-type="4">
      <name>virt1</name>
      <url-path>/r72655596/</url-path>
      <date-created>2007-10-10T16:41:31.643-07:00</date-created>
      <date-modified>2007-10-10T16:41:31.643-07:00</date-modified>
      <principal-name>Piet Pompies</principal-name>
      <folder-name>ppompies@adobe.com</folder-name>
    </sco>
    <sco sco-id="200775257" tree-id="" folder-id="2007775254" type="folder" status="" sco-data-id="" source-sco-id="" host-id="" author-contact-id="" learning-time="" lang="en" seq-id="" icon="folder" display-seq="0" max-retries="" version="0" account-id="2007470268">
      <name>test1</name>
      <url-path>/f13818712/</url-path>
      <date-created>2007-10-10T18:00:31.083-07:00</date-created>
      <date-modified>2007-10-10T18:00:31.083-07:00</date-modified>
      <principal-name>trainer two</principal-name>
      <folder-name>trainer@two.com</folder-name>
    </sco>
  </sco-search-by-field-info>
</results>
```

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>The unique ID of the SCO.</td>
<td></td>
</tr>
<tr>
<td>folder-id</td>
<td>Integer</td>
<td>The ID of the folder in which the SCO is stored.</td>
<td></td>
</tr>
<tr>
<td>type</td>
<td>Allowed value</td>
<td>The content type assigned to the SCO (see type for values).</td>
<td></td>
</tr>
<tr>
<td>icon</td>
<td>Allowed value</td>
<td>The icon that visually identifies the SCO in a user interface.</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>String</td>
<td>The file name of the SCO.</td>
<td></td>
</tr>
<tr>
<td>url-path</td>
<td>String</td>
<td>The unique identifier that comes after the domain name in the SCO URL.</td>
<td></td>
</tr>
<tr>
<td>date-created</td>
<td>Datetime</td>
<td>The date the SCO was created.</td>
<td></td>
</tr>
<tr>
<td>date-modified</td>
<td>Datetime</td>
<td>The date the SCO was last modified.</td>
<td></td>
</tr>
<tr>
<td>principal-name</td>
<td>String</td>
<td>The author of the SCO.</td>
<td></td>
</tr>
<tr>
<td>folder-name</td>
<td>String</td>
<td>The name of the folder in which the SCO is stored.</td>
<td></td>
</tr>
</tbody>
</table>
sco-shortcuts

Availability
Breeze 4

Description
Provides information about the folders relevant to the current user. These include a folder for the user’s current meetings, a folder for the user’s content, as well as folders above them in the navigation hierarchy.

To determine the URL of a SCO, concatenate the url-path returned by sco-info, sco-contents, or sco-expanded-contents with the domain-name returned by sco-shortcuts. For example, you can concatenate these two strings:

- http://test.server.com (the domain-name returned by sco-shortcuts)
- /f2006123456/ (the url-path returned by sco-info, sco-contents, or sco-expanded-contents)

The result is this URL:
http://test.server.com/f2006123456/

You can also call sco-contents with the sco-id of a folder returned by sco-shortcuts to see the contents of the folder.

Request URL
http://server_name/api/xml
  ?action=sco-shortcuts
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure

```xml
<?xml version=“1.0” encoding=“utf-8” ?>
<results>
  <status code=code />  
  <shortcuts>
    <sco tree-id=integer sco-id=integer type=allowedValue>   
      <domain-name>string</domain-name>
    </sco>
    ...
  </shortcuts>
</results>
```
Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>shortcuts</td>
<td></td>
<td>Container</td>
<td>Information about all of the folders that relate to the current user.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>Information about one of the current user’s folders.</td>
</tr>
<tr>
<td>tree-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the navigation tree that contains the folder. Several folders might have the same tree-id.</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Integer</td>
<td>The unique ID of the folder.</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of the folder. Allowed values are shown in the following table.</td>
</tr>
<tr>
<td>domain-name</td>
<td></td>
<td>String</td>
<td>The domain name of the folder.</td>
</tr>
</tbody>
</table>

The values that can be returned in the type attribute of the sco element (for this call only, sco-shortcuts) identify Adobe Connect folders. Each folder type maps to a folder in Connect Central and requires certain permission levels to access, described in the following table.

<table>
<thead>
<tr>
<th>Value of type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-custom</td>
<td>Customized content for an account, such as a customized login page, banner, and so on.</td>
</tr>
<tr>
<td>content</td>
<td>The Shared Content folder. Requires Administrator privilege or Manage permission.</td>
</tr>
<tr>
<td>courses</td>
<td>The Shared Training folder. Requires Administrator privilege or Manage permission.</td>
</tr>
<tr>
<td>events</td>
<td>The Shared Events folder. Requires Administrator privilege or Manage permission.</td>
</tr>
<tr>
<td>meetings</td>
<td>The Shared Meetings folder. Requires Administrator privilege or Manage permission.</td>
</tr>
<tr>
<td>my-courses</td>
<td>The My Training folder. By default, the individual user has Manage permission.</td>
</tr>
<tr>
<td>my-content</td>
<td>The My Content folder. By default, the individual user has Manage permission.</td>
</tr>
<tr>
<td>my-events</td>
<td>The My Events folder. By default, the individual user has Manage permission.</td>
</tr>
<tr>
<td>my-meetings</td>
<td>The My Meetings folder. By default, the individual user has Manage permission.</td>
</tr>
<tr>
<td>my-meeting-templates</td>
<td>The My Templates folder. By default, the individual user has Manage permission.</td>
</tr>
<tr>
<td>seminars</td>
<td>The Shared Seminars folder. Requires Administrator privilege or Manage permission.</td>
</tr>
<tr>
<td>shared-meeting-templates</td>
<td>The Shared Templates folder. Inherits permissions from Shared Meetings.</td>
</tr>
<tr>
<td>user-content</td>
<td>Contain the user content folders.</td>
</tr>
<tr>
<td>user-courses</td>
<td>Contain the user courses folders.</td>
</tr>
<tr>
<td>user-events</td>
<td>Contain the user events folders.</td>
</tr>
<tr>
<td>user-meetings</td>
<td>Contain the user meeting folders.</td>
</tr>
</tbody>
</table>

Sample request

http://example.com/api/xml?action=sco-shortcuts
Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <shortcuts>
    <sco tree-id="4930295" sco-id="2006258748" type="my-courses">
      <domain-name>http://example.com</domain-name>
    </sco>
    <sco tree-id="4930293" sco-id="2006258749" type="my-events">
      <domain-name>http://example.com</domain-name>
    </sco>
    ...
  </shortcuts>
</results>
```

See also
sco-info, sco-expanded-contents

**sco-update**

**Availability**
Breeze 4

**Description**
Creates metadata for a SCO, or updates existing metadata describing a SCO.

Call sco-update to create metadata only for SCOs that represent content, including meetings. You also need to upload content files with either sco-upload or Connect Central.

You must provide a folder-id or a sco-id, but not both. If you pass a folder-id, sco-update creates a new SCO and returns a sco-id. If the SCO already exists and you pass a sco-id, sco-update updates the metadata describing the SCO.

To create a course, pass type=content&icon=course, as in the following:

https://example.com/api/xml?action=sco-update&name=AutomatedCourse&type=content&icon=course&folder-id=20002&source-sco-id=23510

After you create a new SCO with sco-update, call permissions-update to specify which users and groups can access it.
Request URL
http://server_name/api/xml
?action=sco-update
&author-info-1=string
&author-info-2=string
&author-info-3=string
&date-begin=datatime
&date-end=datatime
&description=string
&email=string
&first-name=string
&folder-id=integer
&icon=allowedValue
&lang=allowedValue
&last-name=string
&name=string
&sco-id=integer
&sco-tag=string
&source-sco-id=integer
&type=allowedValue
&url-path=string
&session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>author-info-1</td>
<td>String</td>
<td>N</td>
<td>Information about the author. Used only with presentations. Can be used for the author's name or any other information.</td>
</tr>
<tr>
<td>author-info-2</td>
<td>String</td>
<td>N</td>
<td>Additional information about the author. Used only with presentations. Can be used for the author's professional title or any other information.</td>
</tr>
<tr>
<td>author-info-3</td>
<td>String</td>
<td>N</td>
<td>Additional information about the author. Used only with presentations. Can be used for the author's company name or any other information.</td>
</tr>
<tr>
<td>date-begin</td>
<td>Datetime</td>
<td>N</td>
<td>The scheduled beginning date and time, in ISO 8601 format. Used only for meetings and courses.</td>
</tr>
<tr>
<td>date-end</td>
<td>Datetime</td>
<td>N</td>
<td>The scheduled ending date and time, in ISO 8601 format. Used only for meetings and courses.</td>
</tr>
<tr>
<td>description</td>
<td>String</td>
<td>N</td>
<td>A description of the SCO to be displayed in the user interface.</td>
</tr>
<tr>
<td>email</td>
<td>String</td>
<td>N</td>
<td>The e-mail address of the contact person for a presentation (used only with presentation SCOs).</td>
</tr>
<tr>
<td>first-name</td>
<td>String</td>
<td>N</td>
<td>The first name of the contact person for a presentation (used only with presentation SCOs).</td>
</tr>
<tr>
<td>folder-id</td>
<td>Integer</td>
<td>Y/N</td>
<td>The ID of the folder in which a new SCO will be stored. Required for a new SCO, but do not use for an existing SCO.</td>
</tr>
<tr>
<td>lang</td>
<td>Allowed value</td>
<td>N</td>
<td>An abbreviation for the language associated with the SCO (see lang for values). If not specified, the default value for the folder in which the SCO is created is used.</td>
</tr>
<tr>
<td>icon</td>
<td>Allowed value</td>
<td>N</td>
<td>The visual symbol used to identify a SCO in Connect Central; also provides information about the SCO in addition to its type.</td>
</tr>
<tr>
<td>last-name</td>
<td>String</td>
<td>N</td>
<td>The last name of the contact person for a presentation (used only with presentations).</td>
</tr>
</tbody>
</table>
Using Adobe Connect 8 Web Services

Action Reference

Filters
Results cannot be filtered or sorted.

Response Structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <sco folder-id=integer lang=allowedValue type=allowedValue
       sco-id=integer version=integer account-id=integer icon=integer>
    <url-path>string</url-path>
    <description>string</description>
    <name>string</name>
  </sco>
</results>

Response Values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>A code indicating the response status (see status).</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>Information about a new SCO just created, including the sco-id. Returned only if you create a SCO.</td>
</tr>
<tr>
<td>sco</td>
<td></td>
<td>Container</td>
<td>The ID of the folder in which the new SCO is stored.</td>
</tr>
<tr>
<td>lang</td>
<td></td>
<td>Allowed value</td>
<td>A code for the language associated with the SCO (see lang for values).</td>
</tr>
<tr>
<td>type</td>
<td></td>
<td>Allowed value</td>
<td>The type of the new SCO (see type for values).</td>
</tr>
<tr>
<td>sco-id</td>
<td></td>
<td>Allowed value</td>
<td>The unique ID of the new SCO.</td>
</tr>
<tr>
<td>version</td>
<td></td>
<td>Integer</td>
<td>The version number of the new SCO. When the SCO is first created, the version is 0.</td>
</tr>
</tbody>
</table>
Sample request
https://example.com/api/xml?action=sco-update&folder-id=2006258747
&description=test&name=More About Web Communities&type=content
&lang=en

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <sco folder-id="2006258747" account-id="624520" type="content" lang="en" icon="content" sco-id="2006752036" version="0">
    <url-path>/p53884157/</url-path>
    <description>test</description>
    <name>More About Web Communities</name>
  </sco>
</results>

See also
sco-upload

sco-upload

Availability
Breeze 4

Description
Uploads a file to the server and then builds the file, if necessary.

If you are adding a new file, call sco-update first and pass the sco-id returned to sco-upload. If you are updating the content of a file that already exists on the server, you can call sco-upload directly.

You must call sco-upload within an HTML form element. The form element must have an encoding type of multipart/form-data. The HTML form must also have an input element with name=file, as this example shows:
  <P>
  What files are you sending?
  <INPUT type="file" name="file">
  <BR>
  <INPUT type="submit" value="Send" > <INPUT type="reset">
</FORM>

This form uploads a single file. To upload multiple files (for example, a PPT and a PPC file), you must use additional input elements with name=file, for example:

  <P>
  PPT files you are sending <INPUT type="file" name="file"><BR>
  PPC files you are sending <INPUT type="file" name="file"><BR>
  <INPUT type="submit" value="Send" > <INPUT type="reset">
</FORM>

After the upload, call sco-info to get the status of the SCO. The status is initially in-progress, which means that the content is being built. When the status becomes active, the content build is finished, and users can access the content.

Request URL
http://server_name/api/xml
  ?action=sco-upload
  &file=formElementName
  &sco-id=integer
  &summary=string
  &title=string
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>file</td>
<td>Form element name</td>
<td>Y</td>
<td>The file to upload, sent from an input element with name=file in an HTML form. The HTML form must also have an encoding type of multipart/form-data defined in the form element.</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the SCO you want to upload, returned by sco-update.</td>
</tr>
<tr>
<td>summary</td>
<td>String</td>
<td>N</td>
<td>A brief description of the SCO that Connect Central or your application displays.</td>
</tr>
<tr>
<td>title</td>
<td>String</td>
<td>N</td>
<td>The title of the SCO.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.
Response structure

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code=allowedValue />
    <files>
        <file>
            <path>string</path>
        </file>
    </files>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td>code</td>
<td>Allowed value</td>
<td>The status of the response. (see status).</td>
</tr>
<tr>
<td>files</td>
<td></td>
<td>Container</td>
<td>Information about all of the uploaded files. Deprecated and may be removed in a future release.</td>
</tr>
<tr>
<td>file</td>
<td></td>
<td>Container</td>
<td>Information about one file. Deprecated and may be removed in a future release.</td>
</tr>
<tr>
<td>path</td>
<td></td>
<td>String</td>
<td>The path to the newly uploaded file. For Adobe internal use only. Deprecated and may be removed in a future release.</td>
</tr>
</tbody>
</table>

Sample request

This request is created by uploading a file through an HTML form:

```
http://example.com/api/xml?action=sco-upload&sco-id=2006768386
```

Sample response

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok" />
    <files>
        <file>
            <path>624520/2006768386-10/input/WhatMakesAGreatFilm.ppt</path>
        </file>
    </files>
</results>
```

See also

- sco-update

user-accounts

Availability

Breeze 4
Description
Provides a list of the accounts a user belongs to.

The `user-accounts` action is only used when a user belongs to more than one account on the server and uses the same login ID and password for each. In that case, a user's login is likely to fail with a status message of `too-much-data`. This action is useful when you want to retrieve a list of a user's accounts and give the user a choice of which account to log in to.

Request URL
http://server_name/api/xml
  ?action=user-accounts
  &login=string
  &password=string
  &session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>login</td>
<td>String</td>
<td>Y</td>
<td>The user's login name, which may be the user's e-mail address.</td>
</tr>
<tr>
<td>password</td>
<td>String</td>
<td>Y</td>
<td>The user's password.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESSESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted. The default sort is by `account-name`.

Response structure
```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
  <users>
    <user user-id=integer account-id=integer>
      <name>string</name>
      <date-expired>datetime</date-expired>
    </user>
    ...
  </users>
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see <code>status</code>).</td>
</tr>
<tr>
<td>users</td>
<td></td>
<td>Container</td>
<td>Information about the accounts the user belongs to.</td>
</tr>
<tr>
<td>user</td>
<td></td>
<td>Container</td>
<td>Information about a user and an account.</td>
</tr>
<tr>
<td>user-id</td>
<td></td>
<td>Integer</td>
<td>The ID of the user on the server.</td>
</tr>
</tbody>
</table>
Sample request
https://sample.com/api/xml?action=user-accounts&login=joy@acme.com
&password=bigdog

Sample response
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />  
  <users>
    <user user-id="2006258745" account-id="624520">
      <name>Test Account</name>
      <date-expired>2099-12-31T16:00:00.000-08:00</date-expired>
    </user>
  </users>
</results>

user-transcript-update

Availability
Breeze 5

Description
Overrides the score on an item within a curriculum.

For example, you can use `user-transcript-update` to give a user a score for an external training. This action works only for items within a curriculum, and you need manage permission for the curriculum.

Request URL
http://server_name/api/xml
?action=user-transcript-update
&curriculum-id=integer
&sco-id=integer
&status=allowedValue
&score=integer
&principal-id=integer
&session=BreezeSessionCookieValue

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>account-id</td>
<td>Integer</td>
<td>The ID of the account the user belongs to.</td>
</tr>
<tr>
<td></td>
<td>name</td>
<td>String</td>
<td>The name of the account the user belongs to.</td>
</tr>
<tr>
<td></td>
<td>date-expired</td>
<td>Datetime</td>
<td>The date and time the user's login expires.</td>
</tr>
</tbody>
</table>
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>curriculum-id</td>
<td>Integer</td>
<td>N</td>
<td>The ID of the curriculum.</td>
</tr>
<tr>
<td>sco-id</td>
<td>Integer</td>
<td>Y</td>
<td>The unique ID of a SCO with a score you want to override.</td>
</tr>
<tr>
<td>status</td>
<td>Allowed value</td>
<td>Y</td>
<td>A value showing the status of the user's attempt to use this SCO. Allowed values are completed, incomplete, user-passed, user-failed, and not-attempted.</td>
</tr>
<tr>
<td>score</td>
<td>Integer</td>
<td>Y</td>
<td>An integer value that represents the score the user has attained on this SCO.</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the user whose transcript will be overridden.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters

Results cannot be filtered or sorted.

Response structure

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="allowedValue" />
</results>
```

Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td></td>
<td>code</td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

```
https://example.com/api/xml?action=user-transcript-update
&curriculum-id=2006298444&sco-id=2006298445&status=user-passed
&principal-id=2006258745&score=100
```

Sample response

```
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```

See also

learning-path-info, learning-path-update
user-update-pwd

Availability
Breeze 4

Description
Changes a user’s password. A password can be changed in either of these cases:

- By an Administrator logged in to the account, with or without the user’s old password
- By any Adobe Connect Server user, with the user’s principal-id number, login name, and old password

An Administrator can create rules for valid passwords on the server. These rules might include, for example, the number and types of characters a password must contain. If a user submits a new password that does not adhere to the rules, Adobe Connect would throw an error showing that the new password is invalid.

When you call `user-update-pwd`, the password is sent over HTTP or HTTPS in hashed form.

Request URL
http://server_name/api/xml
  ?action=user-update-pwd
&user-id=integer
&password-old=string
&password=string
&password-verify=string
&session=BreezeSessionCookieValue

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>user-id</td>
<td>Integer</td>
<td>Y</td>
<td>The ID of the user.</td>
</tr>
<tr>
<td>password-old</td>
<td>String</td>
<td>Y/N</td>
<td>The user’s current password. Required for regular users, but not for Administrator users.</td>
</tr>
<tr>
<td>password</td>
<td>String</td>
<td>Y</td>
<td>The new password.</td>
</tr>
<tr>
<td>password-verify</td>
<td>String</td>
<td>Y</td>
<td>A second copy of the new password, for verification.</td>
</tr>
<tr>
<td>session</td>
<td>String</td>
<td>N</td>
<td>The value of the BREEZESESSION cookie. Use this parameter if you do not use a client-side cookie management library.</td>
</tr>
</tbody>
</table>

Filters
Results cannot be filtered or sorted.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
</results>
Response values

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>results</td>
<td></td>
<td>Container</td>
<td>All results the action returns.</td>
</tr>
<tr>
<td>status</td>
<td></td>
<td>Empty, with attributes</td>
<td>The status of the response.</td>
</tr>
<tr>
<td>code</td>
<td></td>
<td>Allowed value</td>
<td>A code indicating the response status (see status).</td>
</tr>
</tbody>
</table>

Sample request

This request can be used by an Administrator to change a user’s password without knowing the old password:

https://example.com/api/xml?action=user-update-pwd&user-id=12345&password=newone&password-verify=newone

Sample response

This response shows that the change was successful:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
</results>
```
Chapter 8: Filter and sort reference

This chapter is a reference for filters and sort values you use to reduce the volume of the response from XML actions in Adobe® Connect™ Web Services.

**filter-definition**

**Description**
A filter is a special type of parameter that reduces the volume of the response. When you see `filter-definition` in a request URL syntax, substitute a filter definition.

To create a filter definition, start with the keyword `filter`, add an modifier (if desired), then a field name (if allowed), and then a value, using this syntax:

```
filter-modifier-field=value
```

The modifiers you can add are listed in the following table.

<table>
<thead>
<tr>
<th>Filter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>filter-field=value</td>
<td>Returns all items for which the data in <code>field</code> exactly matches <code>value</code>.</td>
</tr>
<tr>
<td>filter-like-field=value</td>
<td>Returns all items with the string <code>value</code> within <code>field</code>, even if <code>field</code> is not an exact match.</td>
</tr>
<tr>
<td>filter-out-field=value</td>
<td>Filters out or excludes any items with <code>value</code> in <code>field</code>.</td>
</tr>
<tr>
<td>filter-rows=value</td>
<td>Limits the results to the number of rows specified in <code>value</code>.</td>
</tr>
<tr>
<td>filter-start=value</td>
<td>Starts the results at the index number specified in <code>value</code>.</td>
</tr>
<tr>
<td>filter-gt-datefield=value</td>
<td>Selects all items with a date after <code>value</code>. Works only with date fields. The value must be a date in ISO 8601 format.</td>
</tr>
<tr>
<td>filter-lt-datefield=value</td>
<td>Selects all items with a date earlier than <code>value</code>. Works only with date fields. The value must be a date in ISO 8601 format.</td>
</tr>
<tr>
<td>filter-gte-datefield=value</td>
<td>Selects all items with a value in <code>field</code> greater than or equal to <code>value</code>. Works only with date fields. The date uses ISO 8601 format.</td>
</tr>
<tr>
<td>filter-lte-datefield=value</td>
<td>Selects all items with a value in <code>field</code> less than or equal to <code>value</code>. Works only with dates. The date uses ISO 8601 format.</td>
</tr>
<tr>
<td>filter-ismember=value</td>
<td>Selects all principals that are members of a group, specified in a separate parameter. Takes a Boolean value of <code>true</code> or <code>false</code>.</td>
</tr>
</tbody>
</table>

The `value` is case insensitive. For example, either of these filters matches a meeting with the name *August All Hands Meeting*:

```
&filter-name=August All Hands Meeting
&filter-name=august all hands meeting
```

Some modifiers require a field name on which to filter results, for example, `name`. Other filters do not take a field name. For those filters that accept field names, the allowed fields vary for different actions. Check a specific action in “Action reference” on page 58 to learn which field names you can use in filters.
Exact match filter
filter-name=Goals Review
Matches items with Goals Review (or any mixed case pattern of the same string) in the name.

Similar match filter
filter-like-name=Goals
Matches any item that includes Goals (or any mixed case pattern of the same string) in the name, including Goals Review and Quarterly Goals.

Exclude items filter
filter-out-name=Status
Excludes all items with Status (or any mixed case pattern of the same string) in the name.

Match and exclude items
filter-like-name=Goals&filter-out-status=active
Matches any item with Goals (or any mixed case pattern of the same string) in the name that is no longer active.

Match a start date
filter-gt-date-begin=2005-05-01&sort-name=asc
Matches any item with a start date of May 1, 2005, sorting the items in ascending order by name.

Match a date range
Returns all items with a start date after May 1, 2005 and before May 31, 2005.

See also
sort-definition

sort-definition

When you see sort-definition in a request URL in this reference, create a sort filter with a field name and a value describing how you want the results sorted, in this syntax:

sort-field=value

Replace sort with any of these exact values: sort (for a single sort), sort1 (for the primary sort of two), or sort2 (for a secondary sort on the results returned by sort1).

The field variable defines the field you are sorting on. The fields you can use vary by call, so check the API reference for the call you are making.

The value is always asc (for ascending) or desc (for descending), defining the sequence of the results. Putting this all together, the parts of a sort filter are shown in the following table:
Simple examples of sort-field=value, with one level of sort, look like this:

sort-name=asc
sort-date=desc

The following table gives you more detail on how the sort values asc and desc work:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sort</td>
<td>Vary by call.</td>
<td>asc or desc Sort results by the specified field, in either ascending or descending order.</td>
</tr>
<tr>
<td>sort1</td>
<td>Vary by call.</td>
<td>asc or desc Sort results by a field, either ascending or descending, and then pass the results to the next sort.</td>
</tr>
<tr>
<td>sort2</td>
<td>Vary by call.</td>
<td>asc or desc When results returned by the primary sort are equal, such as same name or group, do a secondary sort by the specified field in either ascending or descending order.</td>
</tr>
</tbody>
</table>

Value Description
asc Ascending order. For alphabetical lists, begin with A and end with Z. For lists ordered by number or date, start with lowest number or earliest date.
desc Descending order. For alphabetical lists, begin with Z and end with A. For lists ordered by number or date, start with highest number or most recent date.

Your results may call for using both primary and secondary sorts with sort1 and sort2. For example, when calling principal-list to list principals, you can do a primary sort on the type field, and then a secondary sort on the name field (this way, all principals of a specific type are grouped together and then sorted by name in each group).

You would specify two levels of sort like this:

sort1-type=asc&sort2-name=desc

See also
filter-definition
Chapter 9: Using the Telephony XML API

This chapter is a reference for the telephony XML API you use to call back to Adobe® Connect™ Web Services. This API is available in Adobe Connect 7.5 Service Pack 1 and later.

The response values from the XML API actions represent name/value pairs that are fields in the Adobe Connect account. A Java Row object is a name/value pair instantiated from the XML response string. For more information, see Adobe Connect Telephony API Javadoc at www.adobe.com/go/learn_cnn_telephony_javadoc_en.

If an API can’t run as designed (for example, a mandatory parameter isn’t passed), <status code="no-data"/> is returned.

The following table summarizes the XML API actions available, in alphabetical order:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>telephony-profile-delete</td>
<td>Deletes the specified profile and removes it from any meetings with which it is associated.</td>
</tr>
<tr>
<td>telephony-profile-info</td>
<td>Retrieves the settings for a specified profile.</td>
</tr>
<tr>
<td>telephony-profile-list</td>
<td>Retrieves the profiles associated with the specified user’s principal ID.</td>
</tr>
<tr>
<td>telephony-profile-update</td>
<td>Creates a new telephony profile or updates an existing profile.</td>
</tr>
<tr>
<td>telephony-provider-conf-number-update</td>
<td>For the specified provider, creates conference numbers that can be used for dialing into an audio conference.</td>
</tr>
<tr>
<td>telephony-provider-delete</td>
<td>Deletes a telephony provider and all information associated with that provider.</td>
</tr>
<tr>
<td>telephony-provider-dial-in-info-update</td>
<td>Creates or updates the dial-in-sequence for a provider.</td>
</tr>
<tr>
<td>telephony-provider-field-delete</td>
<td>Deletes a provider field.</td>
</tr>
<tr>
<td>telephony-provider-field-list</td>
<td>Displays a list of the fields of a provider.</td>
</tr>
<tr>
<td>telephony-provider-field-update</td>
<td>Creates or updates a provider field.</td>
</tr>
<tr>
<td>telephony-provider-info</td>
<td>Displays information on a telephony provider.</td>
</tr>
<tr>
<td>telephony-provider-list</td>
<td>Returns a list of telephony providers.</td>
</tr>
<tr>
<td>telephony-provider-update</td>
<td>Creates a new provider or updates an existing provider.</td>
</tr>
</tbody>
</table>

**telephony-profile-delete**

Deletes the specified profile and removes it from any meetings with which it is associated. To determine profile names, see “telephony-profile-list” on page 217.

**Syntax**

http://<connect_server_name>/api/xml?action=telephony-profile-delete&profile-id=integer
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>profile-id</td>
<td>Y</td>
<td>Integer that specifies the ID of the profile you want to delete.</td>
</tr>
</tbody>
</table>

Permission
You must have permission to modify the profile you want to delete.

Example
Request:

http://connectdev1/api/xml?action=telephony-profile-delete&profile-id=11066

Response:

```xml
<results>
  <status code="ok"/>
</results>
```

**telephony-profile-info**

Retrieves the settings for a specified profile.

Syntax

http://server_name/api/xml?action=telephony-profile-info&profile-id=integer

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-id</td>
<td>N</td>
<td>Integer that specifies the ID of the account to which the profile belongs. If not specified, the logged in user's account is used.</td>
</tr>
<tr>
<td>profile-id</td>
<td>Y</td>
<td>Integer that specifies the ID of the profile you want to view.</td>
</tr>
</tbody>
</table>

Permission
You must have permission to view the profile.

Example
Request:


Response:
<results>
  <status code="ok"/>
  <telephony-profile profile-id="11422" provider-id="11319" profile-status="enabled" provider-type="integrated">
    <adaptor-id>premiere-adaptor</adaptor-id>
    <provider-name>premiere-adaptor</provider-name>
    <class-name>com.macromedia.breeze_ext.premiere.gateway.PTekGateway</class-name>
    <profile-name>PNA1-1</profile-name>
    <provider-status>enabled</provider-status>
  </telephony-profile>
  <telephony-profile-fields disabled="" principal-id="11202" profile-id="11422" profile-status="enabled" provider-id="11319">
    <profile-name>PNA1-1</profile-name>
    <x-tel-premiere-conference-id>5074202</x-tel-premiere-conference-id>
    <x-tel-premiere-conference-number>1-888-208-8183</x-tel-premiere-conference-number>
    <x-tel-premiere-uv-conference-number>1-888-208-8183</x-tel-premiere-uv-conference-number>
    <x-tel-premiere-participant-code>726988</x-tel-premiere-participant-code>
    <x-tel-premiere-user-id>7003155</x-tel-premiere-user-id>
    <x-tel-premiere-password>#C$F@&8!14/XR1uxhMAZLnQFpsS4fOw==</x-tel-premiere-password>
    <x-tel-premiere-moderator-code>7269889</x-tel-premiere-moderator-code>
  </telephony-profile-fields>
</results>

**telephony-profile-list**

Retrieves the profiles associated with the specified user’s principal ID.

**Syntax**

```
http://server_name/api/xml?action=telephony-profile-list&principal-id=integer
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>principal-id</td>
<td>N</td>
<td>Integer that specifies the principal ID of the user for whom profiles are retrieved. If you don’t specify a value, the logged-in user’s principal ID is used.</td>
</tr>
</tbody>
</table>

**Permission**

You must have view permissions on the principal-id, if provided.

**Example**

**Request:**

```
http://connectdev1/api/xml?action=telephony-profile-list&principal-id=11032
```

**Response:**

Last updated 12/16/2010
<results>
  <status code="ok"/>
  <telephony-profiles>
    <profile profile-id="11091" provider-id="11049" profile-status="enabled">
      <adaptor-id>premiere-emea-adaptor</adaptor-id>
      <name>Premiere EMEA</name>
      <profile-name>PE1</profile-name>
    </profile>
    <profile profile-id="11232" provider-id="11035" profile-status="enabled">
      <adaptor-id>premiere-adaptor</adaptor-id>
      <name>Premiere NA</name>
      <profile-name>P2</profile-name>
    </profile>
  </telephony-profiles>
</results>

**telephony-profile-update**

Creates a new telephony profile or updates an existing profile.

**Syntax**

http://server_name/api/xml?action=telephony-profile-update&principal-id=integer&profile-name=profile-name&profile-status=profile-status&field-id=field-id&value=value&provider-id=integer

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>conf-number</td>
<td>N</td>
<td>String that specifies the conference number associated with this profile. If you provide a value, any existing conference numbers for this profile are deleted.</td>
</tr>
<tr>
<td>field-id</td>
<td>N</td>
<td>String that specifies the field whose value needs to be updated. If this value is specified, you must also specify a value for provider-id.</td>
</tr>
<tr>
<td>location</td>
<td>Y if you specify a value for conf-number; otherwise N</td>
<td>String specifying the country code (for example, UK) of the location to be updated.</td>
</tr>
<tr>
<td>principal-id</td>
<td>N</td>
<td>Integer that specifies the user for which the profile is created or updated. If not specified, the principal ID of the user who is currently logged in is used.</td>
</tr>
<tr>
<td>profile-id</td>
<td>Y if you are updating a profile</td>
<td>Integer that specifies the profile to be updated. If not specified, a new profile is created.</td>
</tr>
<tr>
<td>profile-name</td>
<td>Y if you are creating a profile</td>
<td>The name of the profile being created or updated.</td>
</tr>
</tbody>
</table>
Permission
If you are creating a new profile, you must have modify permissions on the principal-id. If you are updating a profile, you must have modify permissions on the profile.

Example
Request (to update a profile):


Response:

<results>
    <status code="ok"/>
</results>

Request (to create a profile):


Response:

<results>
    <status code="ok"/>
    -
        <profile profile-status="enabled" provider-id="11050" principal-id="11032" profile-id="11900">
            <profile-name>PE3</profile-name>
        </profile>
</results>

telephony-provider-conf-number-update

For the specified provider, creates conference numbers that can be used for dialing in to an audio conferences.

Note: This API deletes any existing conference numbers.

Syntax

http://server_name/api/xml?action=telephony-provider-conf-number-update&provider-id=integer&conf-number=integer&location=location
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>provider-id</td>
<td>Y</td>
<td>Integer specifying the provider ID for which the conference number is to be updated.</td>
</tr>
<tr>
<td>conf-number</td>
<td>Y</td>
<td>Integer specifying the conference number to be updated.</td>
</tr>
<tr>
<td>location</td>
<td>Y</td>
<td>String specifying the country code (for example, UK) of the location to be updated.</td>
</tr>
</tbody>
</table>

Permission
You must have permission to modify the provider whose conference number is being updated.

Example
Request:
http://connectdev1/api/xml?action=telephony-provider-conf-number-update&provider-id=11712&conf-number=4567&location=USA

Response:

```xml
<results>
  <status code="ok"/>
</results>
```

telephony-provider-delete

 Deletes a telephony provider and all information associated with that provider.

Syntax
http://server_name/api/xml?action=telephony-provider-delete&provider-id=integer

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>provider-id</td>
<td>Y</td>
<td>Integer specifying the provider ID for the provider you want to delete.</td>
</tr>
</tbody>
</table>
telephony-provider-dial-in-info-update

Creates or updates the dial-in-sequence for a provider.

*Note:* This API deletes any existing dial-in sequences.

**Syntax**

```
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>step-type</td>
<td>Y</td>
<td>String that specifies the type of step that is being updated or added.</td>
</tr>
<tr>
<td>field-id</td>
<td>N</td>
<td>Integer that specifies the field whose value needs to be updated.</td>
</tr>
<tr>
<td>value</td>
<td>N</td>
<td>Specifies the value of the specified field-id.</td>
</tr>
<tr>
<td>name</td>
<td>N</td>
<td>String that specifies the name of the dial-in step being created.</td>
</tr>
<tr>
<td>provider-id</td>
<td>Y</td>
<td>Integer that specifies the ID of the provider whose dial-in step being created.</td>
</tr>
</tbody>
</table>

**Permission**

You must have modify permission on the provider whose dial-in-sequence is being update or created.

**Example**

Request:

```
```

Response:

```
<results>
   <status code="ok"/>
</results>
```

**telephony-provider-field-delete**

Deletes a provider field. For a list of available fields, see “telephony-provider-field-list” on page 222.

**Syntax**

```
http://server_name/api/xml?action=telephony-provider-field-delete&provider-id=integer&xml-name=xml-name&field-id=integer
```
Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>provider-id</td>
<td>Y</td>
<td>Integer that specifies the provider whose field is to be deleted.</td>
</tr>
<tr>
<td>field-id</td>
<td>N if xml-name is specified, otherwise Y</td>
<td>Integer that specifies the ID of the field to be deleted.</td>
</tr>
<tr>
<td>xml-name</td>
<td>N if field-id is specified, otherwise Y</td>
<td>String that specifies the XML name of the field to be deleted. If you also specify a value for field-id, this value is ignored.</td>
</tr>
</tbody>
</table>

Permission

You must have modify permission on the provider whose field is being deleted

Example

Request:


Response:

```xml
<results>
  <status code="ok"/>
</results>
```

`telephony-provider-field-list`

Displays a list of the fields of a provider.

Syntax

`http://server_name/api/xml?action=telephony-provider-field-list&provider-id=integer`

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>provider-id</td>
<td>Y</td>
<td>The provider whose fields are to be listed.</td>
</tr>
</tbody>
</table>

Permission

You must have view permissions on the provider.

Example

Request:

http://connectdev1/api/xml?action=telephony-provider-field-list&provider-id=11718

Response:
<results>
  <status code="ok"/>
  -
  <telephony-provider-fields>
    -
    <field provider-id="11718" field-id="11038" field-id="x-premiere-direct-phone" display-
    in-meeting="none" required="false" user-specified="true" input-type="text" is-hidden="true">
      <name>Phone Number</name>
    </field>
    -
    <field provider-id="11718" field-id="11039" field-id="x-premiere-direct-phone-key"
    display-in-meeting="none" required="false" user-specified="false" input-type="text" is-
    hidden="true">
      <name>{x-premiere-direct-phone-key}</name>
    </field>
    -
    <field provider-id="11718" field-id="11046" field-id="x-tel-premiere-sign-up-text"
    display-in-meeting="none" required="false" user-specified="false" input-type="text" is-
    hidden="false">
      To learn more about Premiere Global or to sign up for a new account, please go
to
      <u><a target="_blank"
      t</a></u>.
    </field>
    -
    <field provider-id="11718" field-id="11051" field-id="x-tel-premiere-emea-conference-
    number-part2" display-in-meeting="participants" required="false" user-specified="false"
    input-type="textarea" is-hidden="false">
      <name>{x-tel-premiere-emea-conference-number-part2}</name>
    </field>
    -
    <field provider-id="11718" field-id="11052" field-id="x-tel-premiere-emea-conference-
    number-part3" display-in-meeting="participants" required="false" user-specified="false"
    input-type="textarea" is-hidden="false">
      <name>{x-tel-premiere-emea-conference-number-part3}</name>
    </field>
    -
    <field provider-id="11718" field-id="11053" field-id="x-tel-premiere-emea-conference-
    number-part4" display-in-meeting="participants" required="false" user-specified="false"
    input-type="textarea" is-hidden="false">
      <name>{x-tel-premiere-emea-conference-number-part4}</name>
    </field>
    -
    <field provider-id="11718" field-id="11054" field-id="x-tel-premiere-emea-conference-
    number-part5" display-in-meeting="participants" required="false" user-specified="false"
    input-type="textarea" is-hidden="false">
      <name>{x-tel-premiere-emea-conference-number-part5}</name>
    </field>
    -
    <field provider-id="11718" field-id="11055" field-id="x-tel-premiere-emea-conference-
    number-part6" display-in-meeting="participants" required="false" user-specified="false"
    input-type="textarea" is-hidden="false">
      <name>{x-tel-premiere-emea-conference-number-part6}</name>
  </telephony-provider-fields>
</results>
telephony-provider-field-update

Creates or updates a provider field. If updating a field might result in profiles for this provider to be invalid, all profiles are disassociated from meetings.

For example, if you change a field from optional to mandatory, some existing profiles might not meet the new criteria. Therefore, Connect disassociates all this provider’s profiles from meetings. After updating the field or fields, you need to update profiles as needed and then re-associate them with meetings.
USING ADOBE CONNECT 8 WEB SERVICES
Using the Telephony XML API

Syntax
http://server_name/api/xml?action=telephony-provider-field-update&provider-id=integer&input-type=input-type&display-in-meeting=display-in-meeting&required=boolean&user-specified=boolean&is-hidden=boolean

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>provider-id</td>
<td>Y</td>
<td>Integer that specifies the provider whose fields need to be updated or created.</td>
</tr>
<tr>
<td>field-id</td>
<td>Y if you don’t specify a value for xml-name; otherwise N</td>
<td>Integer that specifies the ID of the field to be updated or created.</td>
</tr>
<tr>
<td>xml-name</td>
<td>Y if you don’t specify a value for field-id; otherwise N</td>
<td>String that specifies the XML name of the field to be updated or created. If a value is also specified for field-id, xml-name is ignored.</td>
</tr>
<tr>
<td>input-type</td>
<td>Y</td>
<td>Input type of this field. Acceptable values are text, password, textarea, and url.</td>
</tr>
<tr>
<td>display-in-meeting</td>
<td>N</td>
<td>String that specifies which participants can see this field in the Connect meeting room. Acceptable values are none and participants.</td>
</tr>
<tr>
<td>required</td>
<td>Y</td>
<td>Boolean value that specifies if this is a required field.</td>
</tr>
<tr>
<td>user-specified</td>
<td>N</td>
<td>Boolean value that specifies whether this is a field that the user specifies, such as password.</td>
</tr>
<tr>
<td>is-hidden</td>
<td>N</td>
<td>Boolean value that specifies whether this field can be displayed through a user interface.</td>
</tr>
</tbody>
</table>

Permission
You must have permission to modify the provider whose field you are creating or updating.

Example
Request (to create a provider field):
http://connectdev1/api/xml?action=telephony-provider-field-update&provider-id=11718&input-type=text&display-in-meeting=participants&required=true&user-specified=true&is-hidden=false
Response:

```
<results>
  <status code="ok"/>
  -
  <telephony-provider provider-status="enabled" provider-type="user-conf" provider-id="12000">
    <name>my-provider</name>
    <adaptor-id>12000-adaptor</adaptor-id>
  </telephony-provider>
</results>
```

Request (to update a provider field):
http://connectdev1/api/xml?action=telephony-provider-field-update&provider-id=11718&input-type=text&display-in-meeting=participants&required=false&user-specified=false&is-hidden=false&field-id=11829&xml-name=x-tel-11829
Response:
<results>
   <status code="ok"/>
</results>

telephony-provider-info

Displays information on a telephony provider, including dial-in sequence, provider fields, and associated conference numbers.

Syntax
http://server_name/api/xml?action=telephony-provider-info&is-meeting-host=boolean&provider-id=integer&account-id=integer&principal-id=integer

Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>provider-id</td>
<td>Y</td>
<td>Integer that specifies the provider ID for which information is to be retrieved.</td>
</tr>
<tr>
<td>principal-id</td>
<td>N</td>
<td>Integer which, if specified, represents the principal ID of the user who created the provider. If not specified, this value is the principal ID of the currently logged-in user.</td>
</tr>
<tr>
<td>account-id</td>
<td>N</td>
<td>If provider-id represents an account-level provider (that is, a provider that was not created by a user), this value is a string that specifies the ID of the account to which the provider belongs. If not specified, this value is the ID of the account of the logged-in user.</td>
</tr>
<tr>
<td>is-meeting-host</td>
<td>N</td>
<td>A Boolean value that specifies whether provider-id is a user-configured provider. If this value is true, information is returned based on the value provided for principal-id.</td>
</tr>
</tbody>
</table>

Permission
For a user-configured provider, you must have view permissions on the provider. For account-level providers, you must have view permission on the account.

Example
Request:
http://connectdev1/api/xml?action=telephony-provider-info&is-meeting-host=false&provider-id=11718&account-id=7

Response:
<results>
  <status code="ok"/>
  -
  <telephony-provider provider-id="11718" provider-type="integrated" token-length="0">
    -
    <class-name>
      com.macromedia.breeze_ext.premiere.gateway.EMEA.PTekGateway
    </class-name>
    <adaptor-id>premiere-emea-adaptor</adaptor-id>
    <name>Premiere EMEA</name>
    <token-prefix>#4</token-prefix>
    <token-postfix>#$</token-postfix>
    <provider-status>enabled</provider-status>
  </telephony-provider>
  -
  <telephony-provider-dial-in-info>
    <step provider-id="11718" sequence-number="1" field="11058" step-type="conf-num"/>
    -
    <step provider-id="11718" sequence-number="2" field="" step-type="delay">
      <value>6000</value>
    </step>
    <step provider-id="11718" sequence-number="3" field="11059" step-type="dtmf"/>
    -
    <step provider-id="11718" sequence-number="4" field="" step-type="dtmf">
      <value>#$</value>
    </step>
    -
    <step provider-id="11718" sequence-number="5" field="" step-type="delay">
      <value>5000</value>
    </step>
  </telephony-provider-dial-in-info>
  -
  <telephony-provider-fields>
  -
  <field provider-id="11718" field="11038" field-id="x-premiere-direct-phone" display-in-meeting="none" required="false" user-specified="true" input-type="text" is-hidden="true">
    <name>Phone Number</name>
  </field>
  -
  <field provider-id="11718" field="11039" field-id="x-premiere-direct-phone-key" display-in-meeting="none" required="false" user-specified="false" input-type="text" is-hidden="true">
    <name>{x-premiere-direct-phone-key}</name>
  </field>
  -
  <field provider-id="11718" field="11046" field-id="x-tel-premiere-sign-up-text" display-in-meeting="none" required="false" user-specified="false" input-type="text" is-hidden="false">
    -
    <name>To learn more about Premiere Global or to sign up for a new account, please go to</name>
    -
  </field>
</results>

Last updated 12/16/2010
USING ADOBE CONNECT 8 WEB SERVICES

Using the Telephony XML API

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- <field provider-id="11718" field="11051" field-id="x-tel-premiere-emea-conference-number-part2" display-in-meeting="participants" required="false" user-specified="false" input-type="textarea" is-hidden="false">
  <name>{x-tel-premiere-emea-conference-number-part2}</name>
</field>
- <field provider-id="11718" field="11052" field-id="x-tel-premiere-emea-conference-number-part3" display-in-meeting="participants" required="false" user-specified="false" input-type="textarea" is-hidden="false">
  <name>{x-tel-premiere-emea-conference-number-part3}</name>
</field>
- <field provider-id="11718" field="11053" field-id="x-tel-premiere-emea-conference-number-part4" display-in-meeting="participants" required="false" user-specified="false" input-type="textarea" is-hidden="false">
  <name>{x-tel-premiere-emea-conference-number-part4}</name>
</field>
- <field provider-id="11718" field="11054" field-id="x-tel-premiere-emea-conference-number-part5" display-in-meeting="participants" required="false" user-specified="false" input-type="textarea" is-hidden="false">
  <name>{x-tel-premiere-emea-conference-number-part5}</name>
</field>
- <field provider-id="11718" field="11055" field-id="x-tel-premiere-emea-conference-number-part6" display-in-meeting="participants" required="false" user-specified="false" input-type="textarea" is-hidden="false">
  <name>{x-tel-premiere-emea-conference-number-part6}</name>
</field>
- <field provider-id="11718" field="11056" field-id="x-tel-premiere-emea-conference-id" display-in-meeting="none" required="false" user-specified="false" input-type="text" is-hidden="true">
  <name>{x-tel-premiere-emea-conference-id}</name>
</field>
- <field provider-id="11718" field="11057" field-id="x-tel-premiere-emea-conference-number" display-in-meeting="participants" required="false" user-specified="false" input-type="textarea" is-hidden="false">
  <name>Conference Number(s)</name>
</field>
- <field provider-id="11718" field="11058" field-id="x-tel-premiere-emea-uv-conference-number" display-in-meeting="none" required="false" user-specified="false" input-type="text" is-hidden="true">
  <name>{x-tel-premiere-emea-uv-conference-number}</name>
</field>
- <field provider-id="11718" field="11059" field-id="x-tel-premiere-emea-participant-code" display-in-meeting="participants" required="false" user-specified="false" input-type="text" is-hidden="false">
  <name>Participant Code</name>
</field>
Using the Telephony XML API

```xml
- <field provider-id="11718" field-id="x-tel-premiere-emea-user-id" display-in-meeting="none" required="true" user-specified="true" input-type="text" is-hidden="false">
  <name>Client ID</name>
</field>
- <field provider-id="11718" field-id="x-tel-premiere-emea-password" display-in-meeting="none" required="true" user-specified="true" input-type="password" is-hidden="false">
  <name>Premiere Password</name>
</field>
- <field provider-id="11718" field-id="x-tel-premiere-emea-moderator-code" display-in-meeting="hosts" required="true" user-specified="true" input-type="text" is-hidden="false">
  <name>Moderator Code</name>
</field>
</telephony-provider-fields>
</results>
```

telephony-provider-list

Returns a list of telephony providers.

- To return a list of user-configured providers for a particular user, pass the user’s principal ID to principal-id and pass a value of true for is-meeting-host.
- To return a list of account-level providers for a specified account, pass the account’s ID to account-id and pass a value of false for is-meeting-host.
- To return a list of account-level providers for the account of the currently logged-in user, pass a value of false for is-meeting-host.

**Syntax**

```
http://server_name/api/xml?action=telephony-provider-list&is-meeting-host=boolean&account-id=integer&principal-id=integer
```

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>principal-id</td>
<td>Y if the value of is-meeting-host is true; otherwise N</td>
<td>Integer that represents the principal ID of the user who created the user-configured providers. If not specified, the principal ID of the logged-in user is used.</td>
</tr>
<tr>
<td>account-id</td>
<td>N</td>
<td>Integer that specifies the ID of the account to which the account-level providers belong. If not specified, the account ID of the logged-in user is used.</td>
</tr>
<tr>
<td>is-meeting-host</td>
<td>N</td>
<td>Boolean value that, if true, indicates that the providers are user-configured and returns a list of providers based on the value of principal-id. The default value is false.</td>
</tr>
</tbody>
</table>

Last updated 12/16/2010
Permission
For a user-configured provider, you must have view permissions on the provider. For account-level providers, you must have view permission on the account.

Example
Request:

http://connectdev1/api/xml?action=telephony-provider-list&is-meeting-host=true&principal-id=11032

Response:

<results>
  <status code="ok"/>
  
  <providers-user>
    <provider provider-id="11722" acl-id="11032" provider-type="user-conf">
      <adaptor-id>11722-adaptor</adaptor-id>
      <name>Test</name>
      <provider-status>enabled</provider-status>
    </provider>
  </providers-user>
</results>

**telephony-provider-update**

Creates a new provider or updates an existing provider. Only users who are administrators or meeting hosts can create a provider.

- To create or update a user-configured provider for the currently logged-in user, pass a value of **true** for `is-meeting-host`.
- To create or update a user-configured provider for a particular user, pass the user’s principal ID to `principal-id` and pass a value of **true** for `is-meeting-host`.
- To update an account-level provider for a specified account, pass the account’s ID to `account-id` and pass a value of **false** for `is-meeting-host`.

**Syntax**

http://server_name/api/xml?action=telephony-provider-update&is-meeting-host=boolean&principal-id=integer&name=name

**Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Required?</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>provider-id</td>
<td>Y if you are updating a provider; otherwise N</td>
<td>Integer that specifies the ID of the provider to be updated. If not specified, a new provider is created.</td>
</tr>
<tr>
<td>account-id</td>
<td>N</td>
<td>The ID of the account to which this provider belongs. If not specified, the ID of the logged-in account is used.</td>
</tr>
<tr>
<td>is-meeting-host</td>
<td>N</td>
<td>Boolean value that, if <strong>true</strong>, indicates that the provider is user-configured and creates or updates the provider based on the value of principal-id.</td>
</tr>
</tbody>
</table>
Permission
If you are creating an account-level provider, you must have modify permission on the account. If you are creating a user-configured provider, you must be a member of the meeting hosts or administrators group. If you are updating a provider, you must have modify permission on the provider.

Example
Request (for creating a provider):

http://connectdev1/api/xml?action=telephony-provider-update&is-meeting-host=true&principal-id=11032&name=my-provider2

Response:

<results>
  <status code="ok"/>
  <telephony-provider provider-status="enabled" provider-type="user-conf" provider-id="12125">
    <name>my-provider2</name>
    <adaptor-id>12125-adaptor</adaptor-id>
  </telephony-provider>
</results>

Request (for updating a provider):

http://connectdev1/api/xml?action=telephony-provider-update&is-meeting-host=true&principal-id=11032&provider-id=11814&provider-status=disabled

Response:

<results>
  <status code="ok"/>
</results>
Chapter 10: Common reference

This reference section describes XML elements and attributes that are used by more than one action in Adobe® Connect™ Web Services. The elements described here are referenced from the request and response tables describing actions in the Web Services XML API.

All parameter, element, and attribute names and values are case sensitive. For example, name is not the same as Name, and sco-id is not equivalent to sco-Id. You must enter them exactly as shown in this reference.

Common XML elements and attributes

access

Description
An attribute describing the level of access a user has to a course or curriculum.

Values

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>access-blocked</td>
<td>The course or curriculum is restricted and users cannot take it.</td>
</tr>
<tr>
<td>access-hidden</td>
<td>The course or curriculum is restricted, users cannot take it, and it is hidden in Adobe Connect Central (or the user interface of a custom application, if you use this value).</td>
</tr>
<tr>
<td>access-open</td>
<td>The course or curriculum is open and users can take it.</td>
</tr>
<tr>
<td>access-optional</td>
<td>The course or curriculum is optional.</td>
</tr>
<tr>
<td>access-pass</td>
<td>The user has already taken the course or curriculum and passed it.</td>
</tr>
</tbody>
</table>

feature-id

Description
An attribute describing a feature that either users can use or things that can occur during a meeting. Use feature-id with the meeting-feature-update action.

For more information on the pods that can be enabled or disabled, see the Adobe Connect User Guide.
## Values

<table>
<thead>
<tr>
<th>Value</th>
<th>Description of functionality when value is enabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>fid-archive</td>
<td>Lets a host start and stop the recording of a meeting. Disabling this setting means that recording settings are not controllable by the host. To set Connect to automatically record all meetings, you must both disable fid-archive and enable fid-archive-force.</td>
</tr>
<tr>
<td>fid-archive-force</td>
<td>Sets all meetings to be recorded upon the start of the meeting. Recorded meetings appear in Adobe Connect Central.</td>
</tr>
<tr>
<td>fid-archive-publish-link</td>
<td>When meetings are set to be automatically recorded (by enabling fid-archive-force), lets host create a link to the recording in the meeting folder.</td>
</tr>
<tr>
<td>fid-chat-transcripts</td>
<td>Creates a transcript file (one per meeting session) of all text messages exchanged in Chat, Q&amp;A, and IM Pods.</td>
</tr>
<tr>
<td>fid-meeting-app-sharing</td>
<td>Lets host request control of attendee's input device (mouse or keyboard) when attendee is sharing their screen, desktop, or application.</td>
</tr>
<tr>
<td>fid-meeting-auto-promote</td>
<td>Lets hosts enable the option to automatically promote participants to presenters.</td>
</tr>
<tr>
<td>fid-meeting-breakout</td>
<td>Allows users to create breakout meetings.</td>
</tr>
<tr>
<td>fid-meeting-chat</td>
<td>Enables the Chat pod.</td>
</tr>
<tr>
<td>fid-meeting-chat-clear</td>
<td>Automatically clears Chat pod history when a new session of an existing meeting is started.</td>
</tr>
<tr>
<td>fid-meeting-chat-host</td>
<td>Shows a disclaimer (for example, explaining that the meeting is being recorded) when a user starts or attends any meeting in this account. To proceed with the meeting, the host or attendees must first accept the disclaimer. If a user does not accept, the disclaimer user is returned to the Connect home page.</td>
</tr>
<tr>
<td>fid-meeting-chat-private</td>
<td>Lets users send chat messages to specific attendees.</td>
</tr>
<tr>
<td>fid-meeting-chat-public</td>
<td>Lets users send chat messages to all attendees.</td>
</tr>
<tr>
<td>fid-meeting-desktop-sharing</td>
<td>Lets users share their screen (both the complete desktop and individual applications).</td>
</tr>
<tr>
<td>fid-meeting-dialout</td>
<td>Lets users use Call Out and Call Me features.</td>
</tr>
<tr>
<td>fid-meeting-enhanced-rights</td>
<td>Lets host change the access of attendees to specific subfeatures.</td>
</tr>
<tr>
<td>fid-meeting-file-share</td>
<td>Enables the File Share pod.</td>
</tr>
<tr>
<td>fid-meeting-flv</td>
<td>Enables “Presenter Changes affect everyone” for full-screen mode. Note: this feature does not enable or disable users' ability to enter full-screen mode.</td>
</tr>
<tr>
<td>fid-meeting-full-screen-affects-all</td>
<td>Enables the Instant Messages pod. This feature is part of the Adobe Connect integration with supported Microsoft real-time communication servers. Disable this feature when you want to show the Invtee List pod but hide the associated Instant Messages pod.</td>
</tr>
<tr>
<td>fid-meeting-hold</td>
<td>Lets hosts place participants on hold.</td>
</tr>
<tr>
<td>fid-meeting-host-cursors</td>
<td>Lets a host change the display of the host’s cursor.</td>
</tr>
<tr>
<td>fid-meeting-im</td>
<td>Enables the Instant Messages pod. This feature is part of the Adobe Connect integration with supported Microsoft real-time communication servers. Disable this feature when you want to show the Invtee List pod but hide the associated Instant Messages pod.</td>
</tr>
<tr>
<td>fid-meeting-invitee-presence</td>
<td>Enables the Invtee List pod and the associated Instant Messages pod. This feature is part of the Adobe Connect integration with supported Microsoft real-time communication servers.</td>
</tr>
<tr>
<td>fid-meeting-manage-link</td>
<td>Enables the “Manage Room with Web Manager” link in the meeting menu.</td>
</tr>
<tr>
<td>Value</td>
<td>Description of functionality when value is enabled</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>fid-meeting-note</td>
<td>Enables the Notes pod.</td>
</tr>
<tr>
<td>fid-meeting-notes-clear</td>
<td>Automatically clears Notes pod history when a new session of an existing meeting is started.</td>
</tr>
<tr>
<td>fid-meeting-passcode-notallowed</td>
<td>Meeting hosts can assign passcodes to meetings in Connect Central. However, by default, this feature is disabled. Account Administrators can enable the feature in Connect Central or you can pass this feature ID and set enable=false.</td>
</tr>
<tr>
<td>fid-meeting-pause-annotate</td>
<td>Lets users pause during screen sharing and annotate on an overlay white board.</td>
</tr>
<tr>
<td>fid-meeting-people-list</td>
<td>Enables the Attendee List pod.</td>
</tr>
<tr>
<td>fid-meeting-poll</td>
<td>Enables the Poll pod.</td>
</tr>
<tr>
<td>fid-meeting-pres-only</td>
<td>Enables the use of the Presenter-Only area.</td>
</tr>
<tr>
<td>fid-meeting-pr-mode</td>
<td>Enables Preparing Mode, which lets hosts change the meeting layout without affecting other users' layouts. When the layout is ready, disable this mode to show the layout to all users.</td>
</tr>
<tr>
<td>fid-meeting-qa-clear</td>
<td>Automatically clears Q &amp; A pod history when a new session of an existing meeting is started.</td>
</tr>
<tr>
<td>fid-meeting-room-bg</td>
<td>Lets a host change a meeting room background. Backgrounds are typically set in the meeting template.</td>
</tr>
<tr>
<td>fid-meetings-custom-pods</td>
<td>Enables custom pods.</td>
</tr>
<tr>
<td>fid-meeting-shared-library</td>
<td>Lets users select documents from the Content Library while in the Share pod. (This setting doesn't affect the File Share pod.)</td>
</tr>
<tr>
<td>fid-meeting-shared-upload</td>
<td>Lets users upload documents to the Content Library while in the Share pod. (This setting doesn't affect the File Share pod.)</td>
</tr>
<tr>
<td>fid-meeting-show-talker</td>
<td>Lets hosts enable or disable the &quot;Who's Speaking&quot; area in a meeting.</td>
</tr>
<tr>
<td>fid-meeting-show-talker-area</td>
<td>Enables the &quot;Who's Speaking&quot; area.</td>
</tr>
<tr>
<td>fid-meeting-video</td>
<td>Enables the Camera pod.</td>
</tr>
<tr>
<td>fid-meeting-voip</td>
<td>Enables voice controls within the meeting user interface, such as the ability to broadcast audio using VoIP.</td>
</tr>
<tr>
<td>fid-meeting-web-links</td>
<td>Enables the Web Links pod.</td>
</tr>
<tr>
<td>fid-meeting-white-board</td>
<td>Enables use of the white board in the Share pod.</td>
</tr>
<tr>
<td>fid-start-meeting-button</td>
<td>Lets a user start the meeting again after the host ends the meeting.</td>
</tr>
<tr>
<td>fid-training-openenroll</td>
<td>Enables open enrollment, which lets users enroll themselves in a course without approval from the Training Manager. Disabling this feature for an account means that a training manager cannot change the settings of a course in Adobe Connect Central to let learners enroll without approval.</td>
</tr>
</tbody>
</table>

### field

**Description**

An element containing information about a custom field defined for an object or principal.
Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>permission-id</td>
<td>Allowed value</td>
<td>The permission needed to access the custom field. See permission-id for valid values.</td>
</tr>
<tr>
<td>object-type</td>
<td>Allowed value</td>
<td>A definition for a valid object on the server (see type for values).</td>
</tr>
<tr>
<td>field-id</td>
<td>String</td>
<td>A piece of text that identifies the custom field. Adobe Connect Central does not display the field-id, but various actions return it.</td>
</tr>
<tr>
<td>account-id</td>
<td>Integer</td>
<td>An ID for the user who is presently logged in, assigned by the server.</td>
</tr>
<tr>
<td>display-seq</td>
<td>Integer</td>
<td>The order in which the custom field is displayed in the user interface or returned by the action.</td>
</tr>
<tr>
<td>field-type</td>
<td>String</td>
<td>The type of data the field accepts. Allowed values are text, textarea, and password.</td>
</tr>
<tr>
<td>is-primary</td>
<td>Boolean</td>
<td>Whether the custom field can be deleted. true means the field cannot be deleted, false means it can.</td>
</tr>
<tr>
<td>is-required</td>
<td>Boolean</td>
<td>Whether the custom field is required. true means a value must be specified for this field in each principal or SCO that uses it. false means values for this field are not required.</td>
</tr>
<tr>
<td>acl-id</td>
<td>Integer</td>
<td>The custom field's ID in an access control list (ACL).</td>
</tr>
<tr>
<td>custom-seq</td>
<td>Integer</td>
<td>The sequence number assigned to the custom field in UI display.</td>
</tr>
<tr>
<td>type</td>
<td>String</td>
<td>The type of custom field (see type for values).</td>
</tr>
<tr>
<td>principal-id</td>
<td>Integer</td>
<td>The ID of the principal for whom the custom field is defined.</td>
</tr>
</tbody>
</table>

icon

Description
The symbol used to identify a SCO in Connect Central.

Values

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>archive</td>
<td>An archive of an Adobe Connect meeting.</td>
</tr>
<tr>
<td>attachment</td>
<td>A piece of content uploaded as an attachment.</td>
</tr>
<tr>
<td>authorware</td>
<td>A piece of multimedia content created with Macromedia® Authorware® from Adobe.</td>
</tr>
<tr>
<td>captivate</td>
<td>A demo or movie created with Adobe Captivate™.</td>
</tr>
<tr>
<td>course</td>
<td>A training course.</td>
</tr>
<tr>
<td>curriculum</td>
<td>A curriculum.</td>
</tr>
<tr>
<td>external-event</td>
<td>An external training that can be added to a curriculum.</td>
</tr>
<tr>
<td>flv</td>
<td>A media file in the FLV file format.</td>
</tr>
<tr>
<td>html</td>
<td>An HTML file.</td>
</tr>
<tr>
<td>image</td>
<td>An image.</td>
</tr>
</tbody>
</table>

Last updated 12/16/2010
### lang

**Description**
A two-letter or three-letter code describing a language according to the ISO 639 specifications. ISO 639-1 describes two-letter codes, and ISO 639-2 describes three-letter codes. The language code affects an Adobe Connect application display, for example, a meeting room or an Adobe Connect Central display.

**Values**

<table>
<thead>
<tr>
<th>Two-Letter Value</th>
<th>Three-Letter Value</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>en</td>
<td>eng</td>
<td>English</td>
</tr>
<tr>
<td>fr</td>
<td>fre</td>
<td>French (do not use fra)</td>
</tr>
<tr>
<td>de</td>
<td>ger</td>
<td>German (do not use deu)</td>
</tr>
<tr>
<td>ja</td>
<td>jpn</td>
<td>Japanese</td>
</tr>
<tr>
<td>ko</td>
<td>kor</td>
<td>Korean</td>
</tr>
</tbody>
</table>

### object-type

**Description**
An attribute describing the type of a Adobe Connect object.

**Values**

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>object-type-account</td>
<td>An account that contains principals and SCOs.</td>
</tr>
<tr>
<td>object-type-action</td>
<td>An action in the Web Services XML API.</td>
</tr>
<tr>
<td>object-type-event</td>
<td>An Adobe Connect event.</td>
</tr>
</tbody>
</table>
### path-type

**Description**
The `path-type` attribute describes a type of learning path between two objects in a curriculum, for example, whether one must be completed as a prerequisite to the next.

**Values**

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>completion-none</td>
<td>The current SCO is not a completion requirement for the curriculum.</td>
</tr>
<tr>
<td>completion-required</td>
<td>The current SCO is a completion requirement.</td>
</tr>
<tr>
<td>prereq-none</td>
<td>The current learning object has no prerequisites.</td>
</tr>
<tr>
<td>prereq-required</td>
<td>The current SCO has a prerequisite that must be completed.</td>
</tr>
<tr>
<td>prereq-hidden</td>
<td>The target learning object is required as a prerequisite. The current learning object is hidden until the target learning object is completed.</td>
</tr>
<tr>
<td>prereq-suggested</td>
<td>The current SCO has a prerequisite that is recommended, not required.</td>
</tr>
<tr>
<td>preass-blocked</td>
<td>The current SCO has a test-out. If the enrollee passes, this item is locked. If the enrollee fails, this item is available.</td>
</tr>
<tr>
<td>preass-none</td>
<td>The current SCO has no test-outs.</td>
</tr>
<tr>
<td>preass-hidden</td>
<td>The current SCO has a test-out. If the user passes, the current SCO can be hidden from the user. If the user fails, the current SCO is visible and the user can enroll.</td>
</tr>
<tr>
<td>preass-optional</td>
<td>The current SCO has a test-out. If the user passes, the current SCO is no longer required to complete the curriculum.</td>
</tr>
</tbody>
</table>

### permission-id

**Description**
The `permission-id` parameter (or attribute) defines a permission. Depending on the context of the action or response, the permission might be one a principal has on a SCO, or a permission that is needed in order to execute an action.
### Values

<table>
<thead>
<tr>
<th>Permission</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>view</td>
<td>The principal can view, but cannot modify, the SCO. The principal can take a course, attend a meeting as participant, or view a folder’s content.</td>
</tr>
<tr>
<td>host</td>
<td>Available for meetings only. The principal is host of a meeting and can create the meeting or act as presenter, even without view permission on the meeting’s parent folder.</td>
</tr>
<tr>
<td>mini-host</td>
<td>Available for meetings only. The principal is presenter of a meeting and can present content, share a screen, send text messages, moderate questions, create text notes, broadcast audio and video, and push content from web links.</td>
</tr>
<tr>
<td>remove</td>
<td>Available for meetings only. The principal does not have participant, presenter or host permission to attend the meeting. If a user is already attending a live meeting, the user is not removed from the meeting until the session times out.</td>
</tr>
<tr>
<td>publish</td>
<td>Available for SCOs other than meetings. The principal can publish or update the SCO. The publish permission includes view and allows the principal to view reports related to the SCO. On a folder, publish does not allow the principal to create new subfolders or set permissions.</td>
</tr>
<tr>
<td>manage</td>
<td>Available for SCOs other than meetings or courses. The principal can view, delete, move, edit, or set permissions on the SCO. On a folder, the principal can create subfolders or view reports on folder content.</td>
</tr>
<tr>
<td>denied</td>
<td>Available for SCOs other than meetings. The principal cannot view, access, or manage the SCO.</td>
</tr>
</tbody>
</table>

### Special permissions

The server defines a special principal, **public-access**, which combines with values of **permission-id** to create special access permissions to meetings:

- **principal-id=public-access and permission-id=view-hidden** means the Adobe Connect meeting is public, and anyone who has the URL for the meeting can enter the room.
- **principal-id=public-access and permission-id=remove** means the meeting is protected, and only registered users and accepted guests can enter the room.
- **principal-id=public-access and permission-id=denied** means the meeting is private, and only registered users and participants can enter the room.

### quota-ID

**Description**

The **quota-ID** parameter defines a quota in the system. The quota type you specify determines the value of **acl-id** to use.

<table>
<thead>
<tr>
<th>Quota type</th>
<th>Quota description</th>
<th>Corresponding acl-id to use</th>
</tr>
</thead>
<tbody>
<tr>
<td>live-user-quota</td>
<td>The number of account-wide Meeting Attendees.</td>
<td>The account-id of the account.</td>
</tr>
<tr>
<td>concurrent-user-per-meeting-quota</td>
<td>The number of concurrent users in one meeting.</td>
<td>The tree-id of the user-meetings tree or meetings tree.</td>
</tr>
<tr>
<td>training-user</td>
<td>The number of concurrent Learners for one account.</td>
<td>The account-id of the account.</td>
</tr>
<tr>
<td>num-of-members-quota</td>
<td>The number of Authors or Meeting Hosts.</td>
<td>The principal-id for either the Authors group or the Meeting Hosts (live-admins), depending on which quota you want to specify.</td>
</tr>
</tbody>
</table>
status

Description
A status code returned by Adobe Connect in the response to all actions in the Web Services XML API.

Response structure
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue />
</results>
or
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code=allowedValue>
    <invalid field=string type=allowedValue subcode=allowedValue />
  </status>
</results>

Attributes

code  The status of the response.

table

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>invalid</td>
<td>Indicates that a call is invalid in some way. The invalid element provides more detail.</td>
</tr>
<tr>
<td>no-access</td>
<td>Indicates that you don't have permission to call the action. The subcode attribute provides more details.</td>
</tr>
<tr>
<td>no-data</td>
<td>Indicates that there is no data available (in response to an action that would normally result in returning data). Usually indicates that there is no item with the ID you specified. To resolve the error, change the specified ID to that of an item that exists.</td>
</tr>
<tr>
<td>ok</td>
<td>Indicates that the action has completed successfully.</td>
</tr>
<tr>
<td>too-much-data</td>
<td>Indicates that the action should have returned a single result but is actually returning multiple results. For example, if there are multiple users with the same user name and password, and you call the login action using that user name and password as parameters, the system cannot determine which user to log you in as, so it returns a too-much-data error.</td>
</tr>
</tbody>
</table>

subcode  If present, provides more detail describing the status of the response. For example, subcode values are used to differentiate between different situations in which code is set to noaccess.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account-expired</td>
<td>The customer account has expired.</td>
</tr>
<tr>
<td>denied</td>
<td>Based on the supplied credentials, you don’t have permission to call the action.</td>
</tr>
<tr>
<td>no-login</td>
<td>The user is not logged in. To resolve the error, log in using the login action before you make the call. For more information, see login.</td>
</tr>
<tr>
<td>no-quota</td>
<td>The account limits have been reached or exceeded.</td>
</tr>
<tr>
<td>not-available</td>
<td>The required resource is unavailable.</td>
</tr>
<tr>
<td>not-secure</td>
<td>You must use SSL to call this action.</td>
</tr>
<tr>
<td>pending-activation</td>
<td>The account is not yet activated.</td>
</tr>
</tbody>
</table>
The invalid element
An element that gives information describing a status code of invalid.

<table>
<thead>
<tr>
<th>Element</th>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>invalid</td>
<td></td>
<td>Empty, with attributes</td>
<td>Information about why the call was invalid.</td>
</tr>
<tr>
<td>field</td>
<td>field</td>
<td>String</td>
<td>The name of the request parameter that was incorrect or missing.</td>
</tr>
<tr>
<td>type</td>
<td>type</td>
<td>Allowed value</td>
<td>The type of the incorrect or missing field.</td>
</tr>
<tr>
<td>subcode</td>
<td>subcode</td>
<td>Allowed value</td>
<td>A code explaining why the request was invalid (see the following table for values).</td>
</tr>
</tbody>
</table>

The following table shows the allowed values for subcode when code is invalid.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>duplicate</td>
<td>The call attempted to add a duplicate item in a context where uniqueness is required.</td>
</tr>
<tr>
<td>format</td>
<td>A passed parameter had the wrong format.</td>
</tr>
<tr>
<td>illegal-operation</td>
<td>The requested operation violates integrity rules (for example, moving a folder into itself).</td>
</tr>
<tr>
<td>missing</td>
<td>A required parameter is missing.</td>
</tr>
<tr>
<td>no-such-item</td>
<td>The requested information does not exist.</td>
</tr>
<tr>
<td>range</td>
<td>The value is outside the permitted range of values.</td>
</tr>
</tbody>
</table>

Returned by
All actions in the Adobe Connect Web Services XML API.

Samples
This is a successful response:

```xml
<status code="ok" />
```

This is an invalid response:

```xml
<status code="invalid">
  <invalid field="principal-id" type="id" subcode="missing" />
</status>
```

status attribute

Description
An attribute that describes a user’s progress with a course or curriculum SCO. It is returned by actions that provide training reports.
A curriculum or folder can only have a status of completed or incomplete.

The following table shows the allowed values for status when returned in a row element describing a course.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>user-passed</td>
<td>The SCO has scored interactions the user has passed.</td>
</tr>
<tr>
<td>user-failed</td>
<td>The SCO has scored interactions. The user has answered them, but failed.</td>
</tr>
<tr>
<td>completed</td>
<td>The user has viewed all of the SCO's content, but the content has no scored interactions.</td>
</tr>
<tr>
<td>incomplete</td>
<td>The user has not viewed all of the SCO's content.</td>
</tr>
<tr>
<td>not-attempted</td>
<td>The user has not started viewing all of the SCO's content.</td>
</tr>
<tr>
<td>review</td>
<td>The user has passed or completed the course or used all available retries.</td>
</tr>
</tbody>
</table>

Sample

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <report-user-training-transcripts>
    <row transcript-id="2006905612" sco-id="2006298431" principal-id="2006258745" status="review" score="0" max-score="" certificate="" type="content" icon="course">
      <name>Test Course</name>
      <url-path>/test/</url-path>
      <login>joy@acme.com</login>
      <date-taken>2006-06-30T15:23:55.070-07:00</date-taken>
      <principal-name>Joy Smith</principal-name>
    </row>
  </report-user-training-transcripts>
</results>
```

time-zone-id

Description

Settings that describe time zones that you can use with time-zone-id.

Values

<table>
<thead>
<tr>
<th>Time zone setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(GMT-12:00) International Date Line West</td>
<td>0</td>
</tr>
<tr>
<td>(GMT-11:00) Midway Island, Samoa</td>
<td>1</td>
</tr>
<tr>
<td>(GMT-10:00) Hawaii</td>
<td>2</td>
</tr>
<tr>
<td>(GMT-09:00) Alaska</td>
<td>3</td>
</tr>
<tr>
<td>(GMT-08:00) Pacific Time (US and Canada); Tijuana</td>
<td>4</td>
</tr>
<tr>
<td>(GMT-07:00) Mountain Time (US and Canada)</td>
<td>10</td>
</tr>
<tr>
<td>(GMT-07:00) Chihuahua, La Paz, Mazatlan</td>
<td>13</td>
</tr>
<tr>
<td>(GMT-07:00) Arizona</td>
<td>15</td>
</tr>
<tr>
<td>Time zone setting</td>
<td>Value</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>(GMT-06:00) Central Time (US and Canada)</td>
<td>20</td>
</tr>
<tr>
<td>(GMT-06:00) Saskatchewan</td>
<td>25</td>
</tr>
<tr>
<td>(GMT-06:00) Guadalajara, Mexico City, Monterrey</td>
<td>30</td>
</tr>
<tr>
<td>(GMT-06:00) Central America</td>
<td>33</td>
</tr>
<tr>
<td>(GMT-05:00) Eastern Time (US and Canada)</td>
<td>35</td>
</tr>
<tr>
<td>(GMT-05:00) Indiana (East)</td>
<td>40</td>
</tr>
<tr>
<td>(GMT-05:00) Bogota, Lima, Quito</td>
<td>45</td>
</tr>
<tr>
<td>(GMT-04:00) Atlantic Time (Canada)</td>
<td>50</td>
</tr>
<tr>
<td>(GMT-04:00) Caracas, La Paz</td>
<td>55</td>
</tr>
<tr>
<td>(GMT-04:00) Santiago</td>
<td>56</td>
</tr>
<tr>
<td>(GMT-03:30) Newfoundland</td>
<td>60</td>
</tr>
<tr>
<td>(GMT-03:00) Brasilia</td>
<td>65</td>
</tr>
<tr>
<td>(GMT-03:00) Buenos Aires, Georgetown</td>
<td>70</td>
</tr>
<tr>
<td>(GMT-03:00) Greenland</td>
<td>73</td>
</tr>
<tr>
<td>(GMT-02:00) Mid-Atlantic</td>
<td>75</td>
</tr>
<tr>
<td>(GMT-01:00) Azores</td>
<td>80</td>
</tr>
<tr>
<td>(GMT-01:00) Cape Verde Islands</td>
<td>83</td>
</tr>
<tr>
<td>(GMT) Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London</td>
<td>85</td>
</tr>
<tr>
<td>(GMT) Casablanca, Monrovia</td>
<td>90</td>
</tr>
<tr>
<td>(GMT+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague</td>
<td>95</td>
</tr>
<tr>
<td>(GMT+01:00) Sarajevo, Skopje, Warsaw, Zagreb</td>
<td>100</td>
</tr>
<tr>
<td>(GMT+01:00) Brussels, Copenhagen, Madrid, Paris</td>
<td>105</td>
</tr>
<tr>
<td>(GMT+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna</td>
<td>110</td>
</tr>
<tr>
<td>(GMT+01:00) West Central Africa</td>
<td>113</td>
</tr>
<tr>
<td>(GMT+02:00) Bucharest</td>
<td>115</td>
</tr>
<tr>
<td>(GMT+02:00) Cairo</td>
<td>120</td>
</tr>
<tr>
<td>(GMT+02:00) Helsinki, Kiev, Riga, Sofia, Tallinn, Vilnius</td>
<td>125</td>
</tr>
<tr>
<td>(GMT+02:00) Athens, Istanbul, Minsk</td>
<td>130</td>
</tr>
<tr>
<td>(GMT+02:00) Jerusalem</td>
<td>135</td>
</tr>
<tr>
<td>(GMT+02:00) Harare, Pretoria</td>
<td>140</td>
</tr>
<tr>
<td>(GMT+03:00) Moscow, St. Petersburg, Volgograd</td>
<td>145</td>
</tr>
<tr>
<td>(GMT+03:00) Kuwait, Riyadh</td>
<td>150</td>
</tr>
<tr>
<td>(GMT+03:00) Nairobi</td>
<td>155</td>
</tr>
<tr>
<td>(GMT+03:00) Baghdad</td>
<td>158</td>
</tr>
<tr>
<td>Time zone setting</td>
<td>Value</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>(GMT+03:30) Tehran</td>
<td>160</td>
</tr>
<tr>
<td>(GMT+04:00) Abu Dhabi, Muscat</td>
<td>165</td>
</tr>
<tr>
<td>(GMT+04:00) Baku, Tbilisi, Yerevan</td>
<td>170</td>
</tr>
<tr>
<td>(GMT+04:30) Kabul</td>
<td>175</td>
</tr>
<tr>
<td>(GMT+05:00) Ekaterinburg</td>
<td>180</td>
</tr>
<tr>
<td>(GMT+05:00) Islamabad, Karachi, Tashkent</td>
<td>185</td>
</tr>
<tr>
<td>(GMT+05:30) Chennai, Kolkata, Mumbai, New Delhi</td>
<td>190</td>
</tr>
<tr>
<td>(GMT+05:45) Kathmandu</td>
<td>193</td>
</tr>
<tr>
<td>(GMT+06:00) Astana, Dhaka</td>
<td>195</td>
</tr>
<tr>
<td>(GMT+06:00) Sri Jayawardenepura</td>
<td>200</td>
</tr>
<tr>
<td>(GMT+06:00) Almaty, Novosibirsk</td>
<td>201</td>
</tr>
<tr>
<td>(GMT+06:30) Rangoon</td>
<td>203</td>
</tr>
<tr>
<td>(GMT+07:00) Bangkok, Hanoi, Jakarta</td>
<td>205</td>
</tr>
<tr>
<td>(GMT+07:00) Krasnoyarsk</td>
<td>207</td>
</tr>
<tr>
<td>(GMT+08:00) Beijing, Chongqing, Hong Kong SAR, Urumqi</td>
<td>210</td>
</tr>
<tr>
<td>(GMT+08:00) Kuala Lumpur, Singapore</td>
<td>215</td>
</tr>
<tr>
<td>(GMT+08:00) Taipei</td>
<td>220</td>
</tr>
<tr>
<td>(GMT+08:00) Perth</td>
<td>225</td>
</tr>
<tr>
<td>(GMT+08:00) Irkutsk, Ulaan Batar</td>
<td>227</td>
</tr>
<tr>
<td>(GMT+09:00) Seoul</td>
<td>230</td>
</tr>
<tr>
<td>(GMT+09:00) Osaka, Sapporo, Tokyo</td>
<td>235</td>
</tr>
<tr>
<td>(GMT+09:00) Yakutsk</td>
<td>240</td>
</tr>
<tr>
<td>(GMT+09:30) Darwin</td>
<td>245</td>
</tr>
<tr>
<td>(GMT+09:30) Adelaide</td>
<td>250</td>
</tr>
<tr>
<td>(GMT+10:00) Canberra, Melbourne, Sydney</td>
<td>255</td>
</tr>
<tr>
<td>(GMT+10:00) Brisbane</td>
<td>260</td>
</tr>
<tr>
<td>(GMT+10:00) Hobart</td>
<td>265</td>
</tr>
<tr>
<td>(GMT+10:00) Vladivostok</td>
<td>270</td>
</tr>
<tr>
<td>(GMT+10:00) Guam, Port Moresby</td>
<td>275</td>
</tr>
<tr>
<td>(GMT+11:00) Magadan, Solomon Islands, New Caledonia</td>
<td>280</td>
</tr>
<tr>
<td>(GMT+12:00) Fiji Islands, Kamchatka, Marshall Islands</td>
<td>285</td>
</tr>
<tr>
<td>(GMT+12:00) Auckland, Wellington</td>
<td>290</td>
</tr>
<tr>
<td>(GMT+13:00) Nuku’alofa</td>
<td>300</td>
</tr>
</tbody>
</table>
type

Description
A return element or attribute defining the type of a SCO or principal on the server. The allowed values for type are different for SCOs and principals.

SCO types
A SCO can be content, a meeting, an event, a curriculum, a folder or tree, or other object on Adobe Connect. Most SCOs can have any of the following values for type:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>content</td>
<td>A viewable file uploaded to the server, for example, an FLV file, an HTML file, an image, a pod, and so on.</td>
</tr>
<tr>
<td>curriculum</td>
<td>A curriculum.</td>
</tr>
<tr>
<td>event</td>
<td>A event.</td>
</tr>
<tr>
<td>folder</td>
<td>A folder on the server’s hard disk that contains content.</td>
</tr>
<tr>
<td>link</td>
<td>A reference to another SCO. These links are used by curriculums to link to other SCOs. When content is added to a curriculum, a link is created from the curriculum to the content.</td>
</tr>
<tr>
<td>meeting</td>
<td>An Adobe Connect meeting.</td>
</tr>
<tr>
<td>session</td>
<td>One occurrence of a recurring Adobe Connect meeting.</td>
</tr>
<tr>
<td>tree</td>
<td>The root of a folder hierarchy. A tree’s root is treated as an independent hierarchy; you can’t determine the parent folder of a tree from inside the tree.</td>
</tr>
</tbody>
</table>

Content objects returned by some actions (for example, report-bulk-objects) have the type values shown in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>archive</td>
<td>An archived copy of a live Adobe Connect meeting or presentation.</td>
</tr>
<tr>
<td>attachment</td>
<td>A piece of content uploaded as an attachment.</td>
</tr>
<tr>
<td>authorware</td>
<td>A piece of multimedia content created with Macromedia Authorware from Adobe.</td>
</tr>
<tr>
<td>captivate</td>
<td>A demo or movie authored in Adobe Captivate.</td>
</tr>
<tr>
<td>curriculum</td>
<td>A curriculum, including courses, presentations, and other content.</td>
</tr>
<tr>
<td>external-event</td>
<td>An external training that can be added to a curriculum.</td>
</tr>
<tr>
<td>flv</td>
<td>A media file in the FLV file format.</td>
</tr>
<tr>
<td>image</td>
<td>An image, for example, in GIF or JPEG format.</td>
</tr>
<tr>
<td>meeting</td>
<td>An Adobe Connect meeting.</td>
</tr>
<tr>
<td>presentation</td>
<td>A presentation.</td>
</tr>
<tr>
<td>swf</td>
<td>A SWF file.</td>
</tr>
</tbody>
</table>

Principal types
For principals, the allowed values for type are shown in the following table:
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>admins</td>
<td>The built-in group Administrators, for Adobe Connect server Administrators.</td>
</tr>
<tr>
<td>authors</td>
<td>The built-in group Authors, for authors.</td>
</tr>
<tr>
<td>course-admins</td>
<td>The built-in group Training Managers, for training managers.</td>
</tr>
<tr>
<td>event-admins</td>
<td>The built-in group Event Managers, for anyone who can create an Adobe Connect meeting.</td>
</tr>
<tr>
<td>event-group</td>
<td>The group of users invited to an event.</td>
</tr>
<tr>
<td>everyone</td>
<td>All Adobe Connect users.</td>
</tr>
<tr>
<td>external-group</td>
<td>A group authenticated from an external network.</td>
</tr>
<tr>
<td>external-user</td>
<td>A user authenticated from an external network.</td>
</tr>
<tr>
<td>group</td>
<td>A group that a user or Administrator creates.</td>
</tr>
<tr>
<td>guest</td>
<td>A non-registered user who enters an Adobe Connect meeting room.</td>
</tr>
<tr>
<td>learners</td>
<td>The built-in group learners, for users who take courses.</td>
</tr>
<tr>
<td>live-admins</td>
<td>The built-in group Meeting Hosts, for Adobe Connect meeting hosts.</td>
</tr>
<tr>
<td>seminar-admins</td>
<td>The built-in group Seminar Hosts, for seminar hosts.</td>
</tr>
<tr>
<td>user</td>
<td>A registered user on the server.</td>
</tr>
</tbody>
</table>

**Custom field types**

When used with a custom field, `type` can have any of the following values.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>required</td>
<td>A required custom field for the account.</td>
</tr>
<tr>
<td>optional</td>
<td>An optional field that is displayed during self-registration.</td>
</tr>
<tr>
<td>optional-no-self-reg</td>
<td>An optional field that is hidden during self-registration.</td>
</tr>
</tbody>
</table>
Chapter 11: Sample application

To understand how to use Adobe Connect Web Services to build a custom application, download the sample application from www.adobe.com/go/learn_cnn_firstapp_en.

Getting started with the sample application

To understand how to use Adobe Connect Web Services to build a custom application, download the sample application from www.adobe.com/go/learn_cnn_firstapp_en.

The sample application is written in Java and JSP using a model-view-controller architecture and runs on any web application server with a J2EE servlet container. The sample demonstrates how to implement Adobe Connect meeting functionality in a Java custom application or portal, showing how to log in a user, list a user’s meetings, and create, update, and delete meetings.

As you build and design your application, there are several points about the Adobe Connect Web Services XML API you should keep in mind:

**Sequence of API calls** Calls to the XML API often need to be made in a specific sequence. For example, you need to get the principal-id of a user and the sco-id of a meeting before you call permissions-update to make the user a meeting presenter. Call sequences for various tasks are described in the first chapters of this guide.

**Different parameter names for the same value** A value might have one parameter name in one call and a different parameter name in another call. For example, the unique ID of a SCO might be a sco-id when used with sco-info, but an acl-id in permissions-update. It’s the same value in both calls. The best way to learn this is to use the API reference in this guide.

**SCOs are not object-oriented** A SCO is a shareable content object on the server (for a complete definition, see Find SCOs). A SCO can be a meeting, presentation, course, image, folder, or any object on the server. SCOs are stored within folders in a navigation hierarchy. However, there is no object-oriented structure for SCOs, and one type of SCO is not a subclass of another type. Keep this in mind as you design your application.

Build an adapter class

**Note:** See the sample files XMLApiAdapter.java, login.jsp, and mymeetings.jsp

When you are building a custom application, it’s very handy to have an adapter class. You create an instance of the class for each user login session, and the adapter handles connecting to the server, logging the user in, making requests to the XML API, and parsing XML responses.

Write constructors for the adapter class

The following constructor (from the sample application file XMLApiAdapter.java) creates an instance of the adapter class to represent a user accessing Adobe Connect. This is the constructor to use when you already have the BREEZESESSION cookie value (see Log in from an application). The constructor also calls the createXPaths method to create valid XPath instances to use in other methods:
public XMLApiAdapter(String baseUrl, String breezesession) throws XMLApiException {
    this.setBaseUrl(baseUrl);
    this.breezesession = breezesession;
    createXPaths();
}

The second constructor takes a user's login ID and password, as well as a BREEZESESSION cookie value:

public XMLApiAdapter(String baseUrl, String login, String password, String breezesession) throws XMLApiException {
    this(baseUrl, breezesession);
    this.setLogin(login);
    this.setPassword(password);
}

You can get the BREEZESESSION cookie value before the user logs in by calling "common-info."

Create an instance of the adapter

The following code (from mymeetings.jsp) creates an instance of the XMLApiAdapter class to represent a user who is logged in to Adobe Connect. The current value of breezesession, which holds the BREEZESESSION cookie value, is then stored in the JSP session attribute for other files to access.

<%! XMLApiAdapter breeze = null; %>
<%
...
    breeze = new XMLApiAdapter(breezeBase, login, password, breezesession);
    breeze.getBreezesession();
    session.setAttribute("breezesession", breeze);
...
%>

Log the user in

Note: See the sample files XMLApiAdapter.java and login.jsp.

Your application needs a method that logs users in to Adobe Connect. A login method needs to open a connection to the server, call the login action, and get the XML response. The method also needs to read the value of the BREEZESESSION cookie from the response header and store the value.

The simplest form of the login action is:

https://example.com/api/xml?action=login&login=joy@example.com
&password=jazz

You might also need to add session, account-id, or domain parameters to the login action (see Log in from an application for more ways to call login).

A successful login returns this response, with a status code of ok:

<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok" />
</results>
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Sample application

Build the base request URL
The login method should first build the base request URL to send to the server. In the sample, the breezeUrl method
builds a URL like this:
http://example.com/api/xml?action=

The method also adds an action name and query string that you pass to it. This is the full method:
protected URL breezeUrl(String action, String queryString)
throws MalformedURLException {
return new URL(getBaseUrl() + "/api/xml?" + "action=" + action
+ (queryString != null ? ('&' + queryString) : ""));
}

Send the user’s login information
The login method calls the login action, opens the connection to the server, reads the BREEZESESSION cookie from
the response header, and then checks for a status code of ok in the response:
protected void login() throws XMLApiException {
try {
if (breezesession != null)
logout();
URL loginUrl = breezeUrl("login", "login=" + getLogin()
+ "&password=" + getPassword());
URLConnection conn = loginUrl.openConnection();
conn.connect();
InputStream resultStream = conn.getInputStream();
Document doc = new SAXBuilder(false).build(resultStream);
String breezesessionString = (String) (conn
.getHeaderField("Set-Cookie"));
StringTokenizer st = new StringTokenizer(breezesessionString, "=");
String sessionName = null;

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if (st.countTokens() > 1)
    sessionName = st.nextToken();

if (sessionName != null &&
    sessionName.equals("BREEZESESSION")) {
    String breezesessionNext = st.nextToken();
    int semiIndex = breezesessionNext.indexOf(’;’);
    breezesession = breezesessionNext.substring(0, semiIndex);
}

Element root = doc.getRootElement();
String status = getStatus(root);
if (breezesession == null || !"ok".equalsIgnoreCase(status))
    throw new XMLApiException("Could not log into Adobe Connect.");
} catch (IOException ioe) {
    throw new XMLApiException(IO_ERROR, ioe);
} catch (JDOMException jde) {
    throw new XMLApiException(PARSE_ERROR, jde);
}

Send XML requests

Note: See the sample files XMLApiAdapter.java and createmeeting.jsp.

Once a user is logged in, it’s useful to have a generic request method that sends a request to the server when you provide
an action name and query string.

The request method in the sample takes an action and a query string and sends the BREEZESESSION cookie value back
to the server in the request header:

```java
protected Element request(String action, String queryString)
    throws XMLApiException {
    try {
        if (breezesession == null)
            login();

        URL url = breezeUrl(action, queryString);
        URLConnection conn = url.openConnection();
        conn.setRequestProperty("Cookie", "BREEZESESSION=" + breezesession);
        conn.connect();

        InputStream resultStream = conn.getInputStream();
        Document doc = new SAXBuilder(false).build(resultStream);
        return doc.getRootElement();
    } catch (IOException ioe) {
        throw new XMLApiException("A communication error occurred", ioe);
    } catch (JDOMException jde) {
        throw new XMLApiException("A parsing error occurred", jde);
    }
```
Parse XML responses

Note: See the sample file XMLApiAdapter.java.

When you send an XML request to Adobe Connect, the server returns an XML response. You need to parse the response and extract values, including status codes. One way to parse the response is to use XPath to traverse XML elements (see the XPath tutorial at w3schools.com for more information).

As an example, this is the response from sco-shortcuts:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
  <status code="ok" />
  <shortcuts>
    <sco tree-id="4930295" sco-id="2006258748" type="my-courses">
      <domain-name>http://example.com</domain-name>
    </sco>
    <sco tree-id="4930293" sco-id="2006258749" type="my-events">
      <domain-name>http://example.com</domain-name>
    </sco>
    ...
  </shortcuts>
</results>
```

Extract values

The getShortcuts method calls sco-shortcuts and parses the response using XPath. This is an example of how to extract a list of sco elements and the sco-id of each:

```java
public List getShortcuts() throws XMLApiException {
  try {
    Element e = request("sco-shortcuts", null);
    List scosXml = XPath.selectNodes(e, "/sco");
    List scos = new ArrayList();
    XPath id = XPath.newInstance("./@sco-id");
    for (Iterator i = scosXml.iterator(); i.hasNext();) {
      Element s = (Element) i.next();
      SCO sco = getSco(id.valueOf(s));
      if(null != sco)
        scos.add(sco);
    }
    return scos;
  } catch (JDOMException jde) {
    throw new XMLApiException(PARSE_ERROR, jde);
  }
}
```

Extract a status code

Your application also needs to parse both successful and unsuccessful responses for status codes. For example, when a user calls an action without sufficient permission, the error response has a status element with both code and subcode attributes:
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="no-access" subcode="denied" />
</results>

These lines in the createXPaths method parse for the values of code and subcode:

codePath = XPath.newInstance("//status/@code");
subcodePath = XPath.newInstance("//status/@subcode");

In the sample, the createXPaths method is called when you create an instance of XMLApiAdapter. The getStatus method then uses codePath and subcodePath to return the code and subcode values, separated by a hyphen:

private String getStatus(Element el) throws JDOMException {
    String code = codePath.valueOf(el);
    String subcode = subcodePath.valueOf(el);
    StringBuffer status = new StringBuffer();
    if(null != code && code.length() > 0)
        status.append(code);
    if(null != subcode && subcode.length() > 0)
        status.append(" - " + subcode);
    return status.toString();
}

Display user information

Note: See the sample files XMLApiAdapter.java, UserInfo.java, and header.jsp.

In your user interface, you might want to display information about a user, such as a name, during the user’s login session.

You can retrieve simple information about the user by calling common-info after the user logs in, like this:

https://example.com/api/xml?action=common-info

The response has a user element with information you can display or store in variables to use later:

<user user-id="2006258745" type="user">
    <name>Joy Smith</name>
    <login>joy@acme.com</login>
</user>

If you call common-info before the user logs in, the response does not have a user element.

Get information about the user

In the sample, the getUserInfo method calls common-info and parses the response for the values of name, login, and user-id. The method then stores information about the user in an instance of the UserInfo class, which is a standard bean class with getter and setter methods.
```java
public UserInfo getUserInfo(String login, String password) throws XMLApiException {
    try {
        Element e = request("common-info", "login=" + login + "+password=" + password);
        XPath name = XPath.newInstance("//user/name");
        XPath log = XPath.newInstance("//user/login");
        XPath id = XPath.newInstance("//user/@user-id");

        UserInfo user = new UserInfo();
        user.setLogin(log.valueOf(e));
        user.setName(name.valueOf(e));
        user.setUserId(id.valueOf(e));

        return user;
    } catch (JDOMException jde) {
        throw new XMLApiException(PARSE_ERROR, jde);
    }
}
```

### List a user’s meetings

You may want to list a user’s meetings in your application. You can choose the meetings to list and the information to display based on your application design. This illustration shows one example of a meeting list:

<table>
<thead>
<tr>
<th>Scheduled Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>October Company Meeting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expired meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>EN - Monday Night Football</td>
</tr>
<tr>
<td>seminar invitee</td>
</tr>
<tr>
<td>How to Write a Novel</td>
</tr>
<tr>
<td>September All Hands Meeting</td>
</tr>
<tr>
<td>Platinum Support Team Meeting</td>
</tr>
</tbody>
</table>

To list a user’s meetings using the XML API, call `report-my-meetings` with or without a filter. Without a filter, `report-my-meetings` returns all of a user’s meetings:

https://example.com/api/xml?action=report-my-meetings

You can add `filter-expired=false` to return only meetings that are currently in progress and scheduled in the future:

https://example.com/api/xml?action=report-my-meetings&filter-expired=false

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Even with a filter, the response is likely to have multiple meeting elements that you need to iterate through and extract data from. A meeting element looks like this:

```xml
<meeting sco-id="2007063179" type="meeting" icon="meeting"
    permission-id="host" active-participants="0">
  <name>September All Hands Meeting</name>
  <description>For all company employees</description>
  <domain-name>example.com</domain-name>
  <url-path>/sept15/</url-path>
  <date-begin>2006-09-15T09:00:00.000-07:00</date-begin>
  <date-end>2006-09-15T18:00:00.000-07:00</date-end>
  <expired>false</expired>
  <duration>09:00:00.000</duration>
</meeting>
```

### Get the meeting list

To get the meeting list in Java, write a method like `getMyMeetings`, which lists a user’s meetings with a filter as an argument. If you don’t want to use a filter, you can pass `null` as the filter argument. A meeting is a SCO, so `getMyMeetings` calls the `getSco` method to extract values from the response and store them in an instance of `SCO.java`.

```java
public List getMyMeetings(String filter) throws XMLApiException {
    try {
        Element meetingDoc = request("report-my-meetings", filter);
        List list = XPath.selectNodes(meetingDoc, "/meeting");
        Iterator meetings = list.iterator();
        List result = new ArrayList();
        while (meetings.hasNext()) {
            Element m = (Element) meetings.next();
            SCO meeting = getSco(m);
            result.add(meeting);
        }
        return result;
    } catch (JDOMException jde) {
        throw new XMLApiException(PARSE_ERROR, jde);
    }
}
```

The `SCO` object encapsulates data about the SCO so you can easily retrieve it from a web page (for example, HTML or JSP) in your application.

### Create and update meetings

**Note:** See the sample files `XMLApiAdapter.java` and `SCO.java`.

You might also want to allow users to create meetings in your application. To create a meeting, call `sco-update` with the `folder-id` of a meetings folder and `type=meeting`:

```
https://example.com/api/xml?action=sco-update
&folder-id=2006258750&description=For all company employees
&name=Company All Hands Meeting&type=meeting&lang=en
&date-begin=2006-06-16T23:00&date-end=2006-06-16T23:30
```

The response returns the `sco-id` of the meeting, which you can extract and store.
The difference between calling `sco-update` to create or update a meeting is:

- Pass a `folder-id` to create a meeting.
- Pass a `sco-id` to update an existing meeting. A meeting only has a `sco-id` if it already exists.

### Create a meeting

In an application, you first need to collect from the user the information needed to create or update the meeting, such as the meeting name, date, time, and so on. With that information, use a method such as `updateSco` that calls the `sco-update` action.

In `sco-update`, be sure to set the `type` of the SCO to `meeting`. As an option, you can also set a language code for the meeting room, such as `lang=en`, for example:

```xml
https://example.com/api/xml?action=sco-update&folder-id=2006258750
&description=nov&name=Nov%20All%20Hands%20Meeting&type=meeting&lang=en
&date-begin=2006-11-11T09%3A00&date-end=2006-11-11T17:00
```

The `updateSco` method shows how to implement the `sco-update` call in Java, once you collect information about the meeting from the user:
public String updateSCO(String action, SCO sco) throws XMLApiException {
    try {
        StringBuffer sb = new StringBuffer();
        Map data = sco.getUpdateFields();

        if (CREATE.equals(action))
            sb.append("folder-id=" + sco.getFolderId());
        else
            sb.append("sco-id=" + sco.getId());
        Iterator iter = data.keySet().iterator();
        while (iter.hasNext()) {
            String key = (String) iter.next();
            if (key.indexOf("sco-id") != -1)
                continue;
            if (key.indexOf("folder-id") != -1)
                continue;
            String value = (String) data.get(key);
            sb.append("&" + key + "=" + value);
        }
        if (null == data.get("type"))
            throw new XMLApiException("SCO type not defined");
        Element e = request("sco-update", sb.toString());
        XPath scoId = XPath.newInstance("//results/sco/@sco-id");
        if (scoId.valueOf(e) == null)
            return null;
        else
            return scoId.valueOf(e);
    } catch (JDOMException jde) {
        throw new XMLApiException(PARSE_ERROR, jde);
    } catch (ParseException pe) {
        throw new XMLApiException(PARSE_ERROR, pe);
    }
}

Set meeting access

Once you have a sco-id, a meeting needs access. The user who creates the meeting is the host by default and chooses whether the meeting is public or private, set by a combination of permission-id and principal-id in permissions-update. For example, this call makes a meeting public:

https://example.com/api/xml?action=permissions-update&acl-id=2006334033
&principal-id=public-access&permission-id=view-hidden

Once a user chooses these values, the setPermissions method calls permissions-update to set the meeting access:

public void setPermissions(String aclId, String principalId,
    String permissionId) throws XMLApiException {
    request("permissions-update", "acl-id=" + aclId + "&principal-id="
        + principalId + "&permission-id=" + permissionId);
}

Display meeting detail

Note: See the sample files XMLApiAdapter.java, SCO.java, mymeetings.jsp, and showmeeting.jsp.
Most of the information you want to display about a meeting comes from `sco-info`:

https://example.com/api/xml?action=sco-info&scoid=2006334909

The response has many values that you can display, for example:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <status code="ok" /> 
    <sco account-id="624520" disabled="" display-seq="0" 
        folder-id="2006258747" icon="producer" lang="en" max-retries="" 
        sco-id="2006334909" source-sco-id="" type="content" version="1"> 
        <date-created>2006-05-11T12:00:02.000-07:00</date-created> 
        <date-modified>2006-05-16T15:22:25.703-07:00</date-modified> 
        <name>Test Quiz</name> 
        <url-path>/quiz/</url-path> 
        <passing-score>10</passing-score> 
        <duration>15100.0</duration> 
        <section-count>6</section-count> 
    </sco> 
</results>
```

Get information about a SCO

The `getSco` Java method makes the call to `sco-info` and parses the result, storing values in variables so that you can display them in a user interface:

```java
public SCO getSco(String scoId) throws XMLApiException {
    try {
        Element e = scoInfo(scoId);
        if(!"ok".equalsIgnoreCase(codePath.valueOf(e)))
            return null;
        Element sco = (Element) XPath.selectSingleNode(e, "/sco");
        ...
    }
}
```

Construct the URL to the meeting room

You also need to create the URL to the meeting room. You can do this with a call to `sco-info` and another to `sco-shortcuts`:

https://example.com/api/xml?action=sco-info&scoid=2006258750

https://example.com/api/xml?action=sco-shortcuts

Extract the `url-path` from the `sco-info` response. Then, extract the `domain-name` from the `sco-shortcuts` response and concatenate the two values:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<results>
    <sco tree-id="4930295" sco-id="2006258748" type="my-courses"> 
        <domain-name>http://example.com</domain-name>
    </sco> 
</results>
```

You can also use a single call to `report-my-meetings` if the user is logged in and the meeting is in the user's `my-meetings` folder:

https://example.com/api/xml?action=report-my-meetings
In this case, extract both the domain-name and url-path from the report-my-meetings response.

The scoUrl Java method constructs the URL by calling sco-info to retrieve the url-path and then sco-shortcuts to retrieve the domain-name. In this case, two calls are used so that you do not need to make the assumption that the meeting is in the current user's my-meetings folder:

```java
public String scoUrl(String scoId) throws XMLApiException {
    try {
        Element e = request("sco-info", "sco-id=" + scoId);
        if(!codePath.valueOf(e).equalsIgnoreCase("ok"))
            return "";
        XPath xpath = XPath.newInstance("//url-path/text()") ;
        String path = ((Text) xpath.selectSingleNode(e)).getText();

        e = request("sco-shortcuts", null);
        xpath = XPath.newInstance("//domain-name/text()") ;
        String url = ((Text) xpath.selectSingleNode(e)).getText();

        return url + "/" + path.substring(1) + "?session=" + breezesession;
    } catch (JDOMException jde) {
        throw new XMLApiException(PARSE_ERROR, jde);
    }
}
```