

EQUELLA®

Echo360 Integration Guide

Version 6.4

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Echo360 Integration overview

EQUELLA provides the ability for integration with the leading lecture capture software, Echo360. An integrated Echo360 EchoSystem server (ESS) directly publishes resources into EQUELLA with Echo360 attachments (Echos).

An Echo in the EchoSystem is the processed outputs of a capture event. EchoSystem's processing of a capture into an Echo creates one or more media files with a large amount of associated metadata. An Echo is also known as a presentation in Echo360's technical literature and APIs.

The purpose of this guide is to provide administrators with an understanding of how to configure the integration components, and knowledge of how it functions once configured.

Prerequisites

To successfully complete an integration the system administrator will require:

- sufficient privileges to access the **EchoSystem servers** setting (see [Echo360 privileges](#) below).

System prerequisites for integration:

- EQUELLA version 6.2 and Echo360 5.1 (or later) must be installed and running. Further information on installing EQUELLA is provided in the *EQUELLA Installation and Administration Guide*.
- Ensure that the servers have the same UTC (formerly GMT) time. As long as the UTC time is synchronised on all servers, different times and time zones can be set on each server.

Restrictions

Please note that the Echo360 EQUELLA Publisher plugin currently supports integrations with EQUELLA running with HTTP only.

Echo360 privileges

There are three privileges associated with the configuration of the Echo360 integration. They can be found in the Security Manager under **EchoSystem servers** and are:

- **CREATE_ECHO** – allows new EchoSystem servers to be configured.
- **DELETE_ECHO** – allows existing EchoSystem servers to be deleted.
- **EDIT_ECHO** – allows existing EchoSystem servers to be edited.

See the *EQUELLA Security Administration Guide* for further information.

Integration process

The process to complete a full integration includes:

- Configuration of the EQUELLA schema to be used for the Echo360 collection.
- Configuration of the EQUELLA collection in which Echo360 resources will be stored.
- Installation to the filesystem of the EchoSystem Server's host and configuration in EchoSystem of Echo360's EQUELLA Publisher.
- Configuration in EQUELLA of an EchoSystem Server.
- Enabling of the EQUELLA Publisher plugin.
- EQUELLA Viewer configuration.

Deployment recommendations

- Configure EQUELLA's User Management with the same LDAP source as EchoSystem.
- Optionally add the EQUELLA Publisher to the root organization or sub organization in the ESS.
- Security Module should be either "Seamless Only" or "Authentication Required" or an LDAP authentication retrieving user's credentials from the same LDAP server as the EQUELLA installation this ESS will integrate with.

Configure an EQUELLA Schema

An EQUELLA schema needs to be created (or edited if using existing schema) for Echo360 resources.

When an Echo360 item is published into EQUELLA, there is standard metadata stored with the item. Available Echo360 metadata included on all automatically published Echo360 items is:

```
<xml>
  <echo360 id="Echo System ID - GUID" version="EchoSystem Server Version"
  publisher="Echo Publisher Name">
    <term>
      <name>Name - String</name>
    </term>
    <course>
      <id>Course - GUID - Alphanumeric GUID</id>
      <name>Name - String</name>
      <identifier>Identifier - String</identifier>
    </course>
    <section>
      <id>Section GUID - Alphanumeric GUID</id>
      <name>Name - String</name>
      <external-system-id-1>External - Alphanumeric GUID</external-system-id-1>
      <external-system-id-2>External - String </external-system-id-2>
    </section>
    <presentation>
      <id>Echo GUID - Alphanumeric GUID</id>
      <status>Echo Status - String</status>
      <title>Title - String</title>
      <description>Description - String</description>
```

```

        <start-time>Start time - ISO8601 Date</start-time>
        <duration-milliseconds>Duration - Milliseconds</duration-milliseconds>
        <presenters>
            <person>
                <first-name>First Name - String</first-name>
                <last-name>Last Name - String</last-name>
                <email-address>Email address - String</email-address>
            </person>
            ...
        </presenters>
    </presentation>
</echo360>
</xml>

```

An example of the XML of an Echo360 item in EQUELLA is shown in Figure 1.

```

▼<echo360 essversion="5.1, 5.2" id="0018000000q21QJ" integrationversion="0.1" source="EQUELLA Publisher Plugin">
  ▼<term>
    <name>Spring 2014</name>
  </term>
  ▼<course>
    <id/>
    <name>Equella Demo Course</name>
    <identifier/>
  </course>
  ▼<section>
    <id>d8659422-ba20-4cac-9867-238873aa6546</id>
    <name>Section 1</name>
    <external-system-id-1>d8659422-ba20-4cac-9867-238873aa6546</external-system-id-1>
    <external-system-id-2>Section 1</external-system-id-2>
  </section>
  ▼<presentation>
    <id>3b0dc435-7470-4b46-92fc-194c51b64e54</id>
    <status>available</status>
    <title>Web Communications</title>
    ▼<description>
      Captured: 2014-04-16 21:38 -0400; Term: Spring 2014; Course: Equella Demo Course; Section: Section 1
    </description>
    <start-time>2014-04-16T21:38:00-04:00</start-time>
    <duration-milliseconds>2872000</duration-milliseconds>
    ▼<presenters>
      ▼<person>
        <first-name>Sebastian</first-name>
        <last-name>Malcolm</last-name>
        <email-address>smalcolm@echo360.com</email-address>
      </person>
    </presenters>
  </presentation>
</echo360>

```

Figure 1 Example of the Echo360 XML section of an Echo360 resource in EQUELLA

An example of a schema configured for an Echo360 collection is shown in Figure 2.

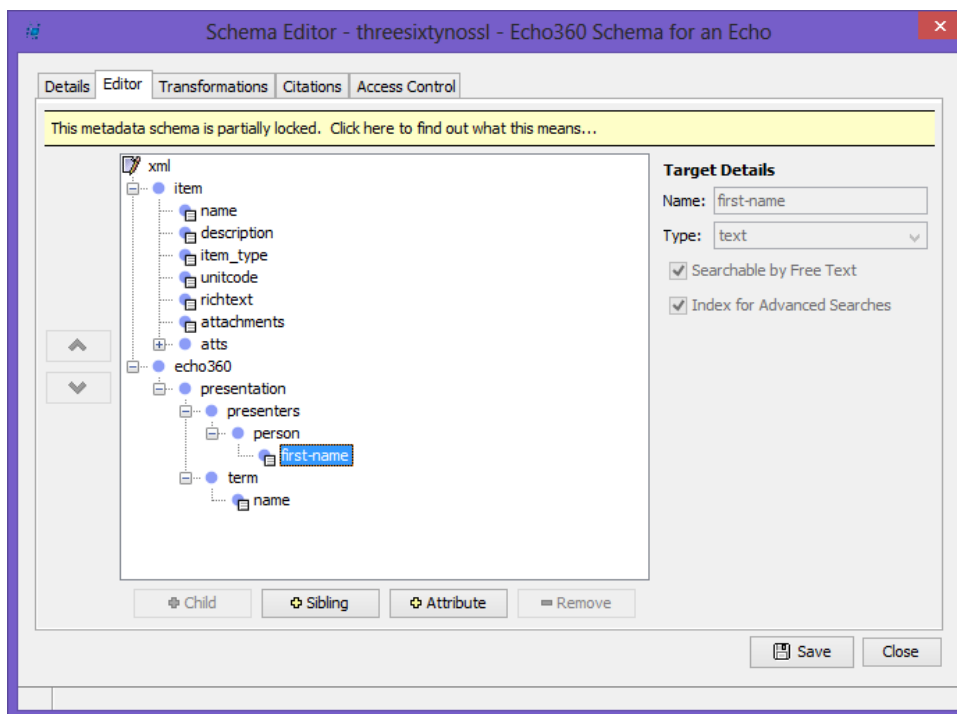


Figure 2 Example schema for Echo360 collection

NOTE: In the above example, the first-name node has been set for 'Searchable by Free Text' which allows discovery in standard text searches.

See the *EQUELLA Metadata Schema Configuration Guide* for further information on creating and editing EQUELLA schemas.

Configure an EQUELLA Collection

An EQUELLA collection is nominated in the EchoSystem's EQUELLA Publisher plugin's configuration to be used for all Echo360 resources. This collection should have the following configuration:

- It must be pointing to the relevant metadata schema (see [Configure an EQUELLA Schema](#) on page 5 for more information). An example is shown in Figure 3.

Figure 3 Collection Definition Editor - example Echo360 collection

*NOTE: For a dedicated Echo360 collection, manual contributions of Echo360 resources are not supported at this time, therefore selecting **<NONE>** in the Select wizard category will prevent the collection from displaying on the contribution page.*

- An **Attachment control** should be added to the wizard if editing of Echo360 resources is required. This control must have the *attachment type* of **Echo360 Presentations** selected. An example is shown in Figure 4.

Figure 4 Example Echo360 collection - attachment control

- The collection must have a 'Save Script' configured which extracts the relevant metadata from the Echo attachment to use for the title and description.

To configure the Save Script

1. From the **Collection Definition Editor**, edit the collection to be used for Echo360 resources and go to the **Expert Scripting** tab. An example is shown in Figure 5.

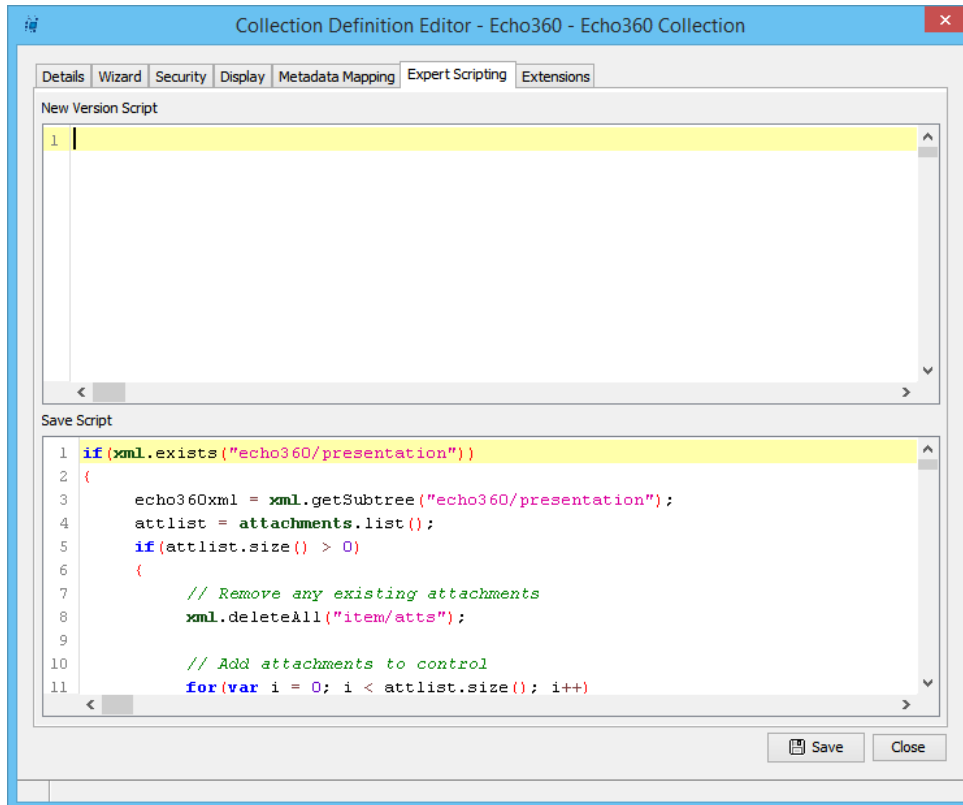


Figure 5 Collection Definition Editor - Expert Scripting tab

2. Enter the required script in the **Save Script** area.

An example of an Echo Save Script is shown below:

```
if(xml.exists("echo360/presentation"))
{
    echo360xml = xml.getSubtree("echo360/presentation");
    attlist = attachments.list();
    if(attlist.size() > 0)
    {
        // Remove any existing attachments
        xml.deleteAll("item/atts");

        // Add attachments to control
        for(var i = 0; i < attlist.size(); i++)
        {
            xml.add("item/atts/att", attlist.get(i).getUuid());
        }
    }

    if(!xml.exists("xml/item/name") && !xml.exists("xml/item/description"))
    {
        xml.set("item/name", echo360xml.get("title"));
        xml.set("item/description", echo360xml.get("description"));
    }
}
```

3. Click  **Save**.

The **Save Script** above pulls the title and description from the metadata provided by Echo360 and populates the appropriate EQUELLA name and description schema fields that are configured for the collection. It also populates the attachment control metadata target with the correct UUIDs for the Echo Presentation attachment.

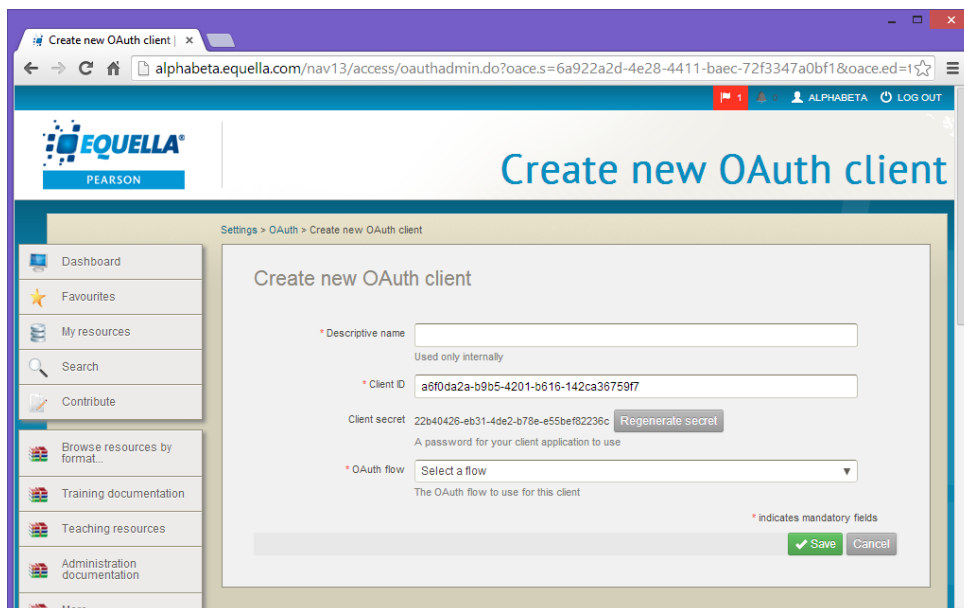
The **Save Script** is an essential part of the integration and must be tailored for the configured collection and schema. Without a correctly written save script, items automatically published to EQUELLA will have no name or description and the attachments will not show up in the wizard when editing.

Configure an EQUELLA OAuth client

The Echo360 EQUELLA Publisher plugin contributes items using REST and as such will need an OAuth client application registration

To Register an OAuth client application

1. Select **Settings** from the navigation menu, then **OAuth**. The OAuth settings page displays, listing registered applications and their corresponding tokens.
2. Click the **Register new client application** link. The *Create new OAuth client* page displays. An example is shown in Figure 6.




The screenshot shows the 'Create new OAuth client' page in the EQUELLA application. The page has a sidebar with navigation links: Dashboard, Favourites, My resources, Search, Contribute, Browse resources by format..., Training documentation, Teaching resources, and Administration documentation. The main content area is titled 'Create new OAuth client' and contains a form with the following fields:

- Descriptive name**: A text input field with a placeholder 'Used only internally'.
- Client ID**: A text input field containing the value 'a6f0da2a-b9b5-4201-b616-142ca36759f7'.
- Client secret**: A text input field containing the value '22b40426-eb31-4de2-b78e-e55bef82236c'. There is a 'Regenerate secret' button next to it.
- OAuth flow**: A dropdown menu with the text 'Select a flow'.

At the bottom right of the form, there are 'Save' and 'Cancel' buttons. A legend indicates that an asterisk (*) denotes mandatory fields.

Figure 6 Create new OAuth client

3. Enter a **Descriptive name** that is used to identify the client application. The **Client ID** and **Client secret** are automatically generated. The **Client ID** can be edited if required.
4. Select *Client credentials grant* from the **OAuth flow** dropdown.
5. Click the  **Select** button to open the **Select user** dialog to search for and select a **Fixed user**. This user must have sufficient privileges to create Echo resources. An example is shown in Figure 7.

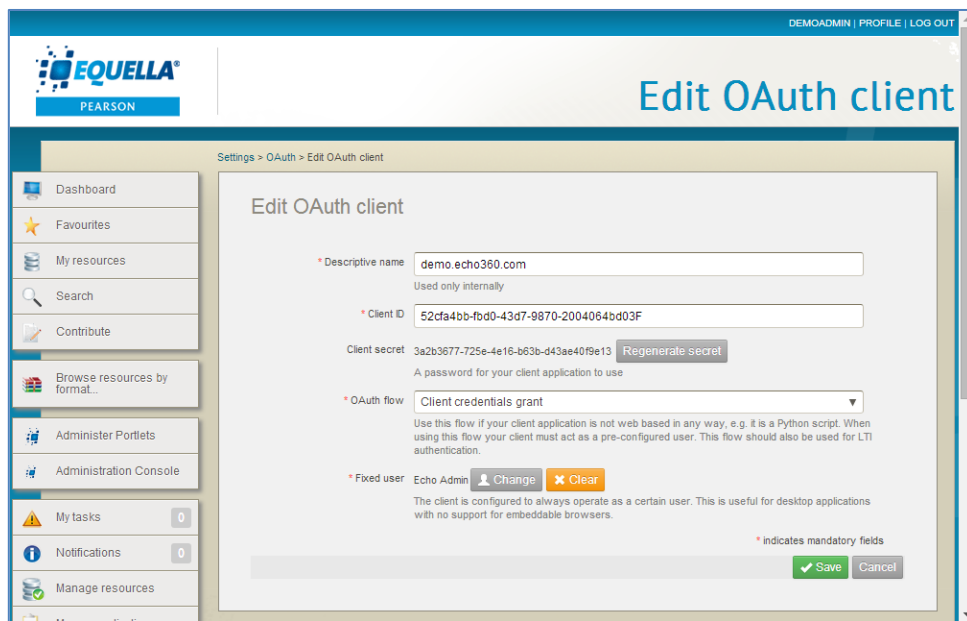


Figure 7 Example Echo360 OAuth client

6. Click .

For more information about configuring OAuth client applications see the *EQUELLA REST API Guide*.

Configure an EQUELLA Trusted System

To add EQUELLA as a trusted system in ESS

1. Log in to Echo360 ESS server using an account with system administration privileges.
2. Select the **System** tab, then **Trusted Systems** from the sub tabs. An example is shown in Figure 8.

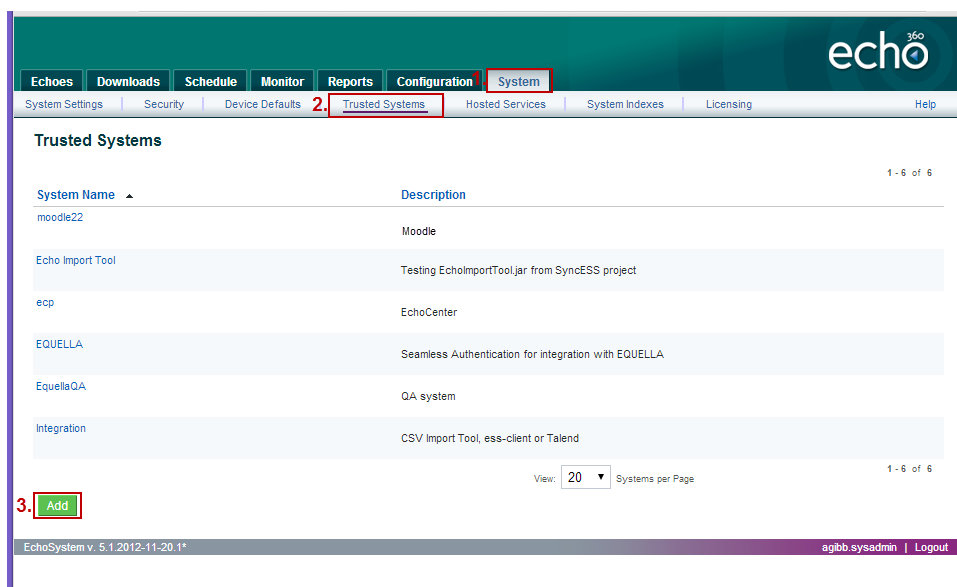


Figure 8 Trusted system page

- Click **Add**. The **Add Trusted System** page displays. An example is shown in Figure 9.

The screenshot shows the 'Add Trusted System' page in the Echo360 interface. The page has a green header with the 'echo 360' logo. Below the header is a navigation bar with tabs: Echoes, Downloads, Schedule, Monitor, Reports, Configuration, and System. The 'System' tab is selected. Under the 'System' tab, there are sub-tabs: System Settings, Security, Device Defaults, Trusted Systems, Hosted Services, System Indexes, Licensing, and Help. The 'Trusted Systems' sub-tab is selected. The main content area is titled 'Add Trusted System' and contains a form for adding a new trusted system. The form has three input fields: 'System Name', 'Description', and 'Consumer Key'. Below the input fields are 'Save' and 'Cancel' buttons. The 'Add' button is highlighted in green.

Figure 9 Add Trusted System page

- Enter a **System Name**, **Description** (optional) and **Consumer Key**.
- Click **Save**. The Trusted System displays with a generated **Consumer Secret**. An example is shown in Figure 10.

The screenshot shows the 'Trusted System Details' page in the Echo360 interface. The page has a green header with the 'echo 360' logo. Below the header is a navigation bar with tabs: Echoes, Downloads, Schedule, Monitor, Reports, Configuration, and System. The 'System' tab is selected. Under the 'System' tab, there are sub-tabs: System Settings, Security, Device Defaults, Trusted Systems, Hosted Services, System Indexes, Licensing, and Help. The 'Trusted Systems' sub-tab is selected. The main content area is titled 'Trusted System Details – equella1'. It shows a green message: 'The item has been added.' Below this is a form for the trusted system details. The form has four input fields: 'System Name' (equella1), 'Description' (EQUELLA trusted system), 'Consumer Key' (equellatrust), and 'Consumer Secret' (Xkk9PsCm0RQNFJl9dx9SbqiqEBTGsYGFCFTmWgDHaPH4n3Qg4jlUqdi+egF4NKylINBAoTX0g+ctZqhU+Pihyug==). Below the input fields are 'Edit', 'Add New', and 'Done' buttons. The 'Add' button is highlighted in green.

Figure 10 Example of new Trusted System details

NOTE: Take note of the **Consumer Key** and **Consumer Secret** as they are required to be entered when configuring the EQUELLA EchoSystem server. (See [Configure EQUELLA EchoSystem Servers](#) on page 13.)

Configure EQUELLA EchoSystem Servers

The Echo360 EchoSystem servers settings page allows the user to configure EchoSystem servers and their access details. Multiple EchoSystem servers can be configured.

To access Echo360 EchoSystem server settings

1. Select Settings from the navigation menu, then **Echo360 EchoSystem servers**. The **EchoSystem servers** page displays with any current servers listed, as shown in Figure 11.

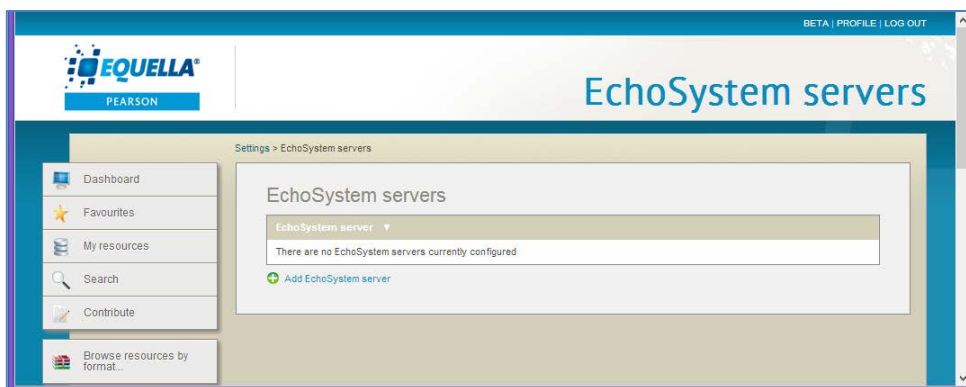


Figure 11 EchoSystem servers page

To add an EchoSystem server

1. Click the **Add EchoSystem server** link. The **Add new EchoSystem server** page displays, as shown in Figure 12.

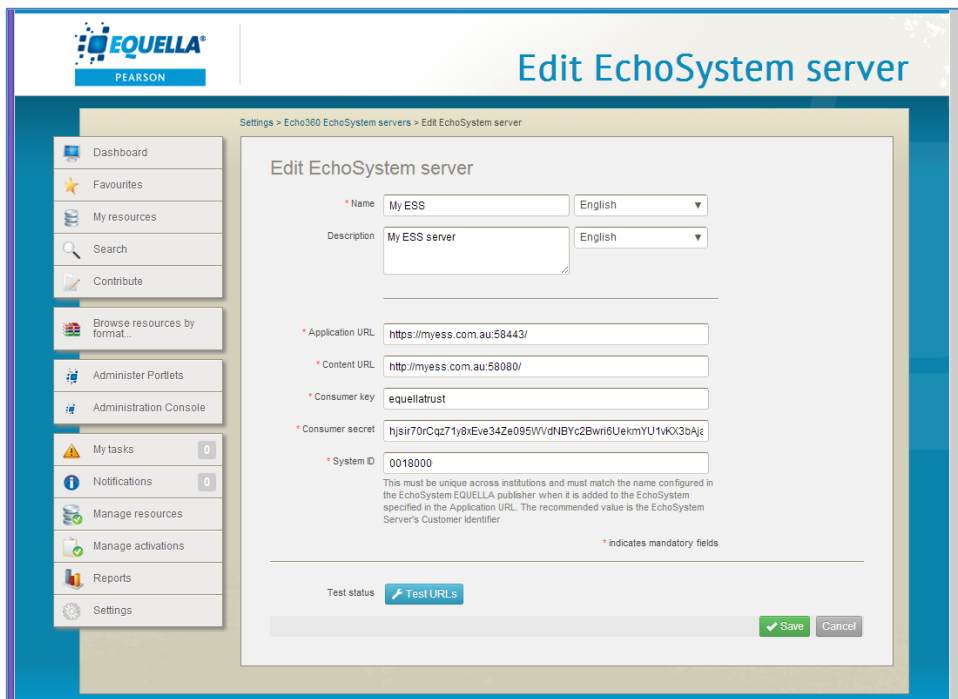


Figure 12 Add new EchoSystem server page with example data


2. Enter a server **Name** and **Description** (optional).
3. Enter the information obtained previously from the Echo360 ESS into the following fields:
 - **Application URL**
 - **Content URL**
 - **Consumer key**
 - **Consumer secret**
 - **System ID**
4. Click . A **Connection successful** message displays beside the button. An example is shown in Figure 13.



Figure 13 Connection successful

If an error message displays, check and correct the entered values, then retest the URLs.

5. Click .

Echo360's EQUELLA Publisher installation

This integration hinges on the EQUELLA Publisher plugin created by Echo360. This custom publisher allows an EchoSystem Server (ESS) to automatically publish items in EQUELLA that contain Echo Presentation attachments.

Download and install EQUELLA Publisher plugin

Echo360 distributes the EQUELLA Publisher via their Customer Portal which is restricted to licensed customers. It is also available on request by email to support@echo360.com.

To install the EQUELLA Publisher plugin on the EchoSystem Server

1. Shut down the EchoSystem Server service.
2. Copy the JAR file (named `ess-equella-plugin-<version>-publisher.jar`) for the EQUELLA Publishing Plugin into `<ESS install directory>/server/user-plugins/`.
3. Start the EchoSystem Server service.
4. Login to EchoSystem Server's web interface as a user in 'System Admin' role to confirm successful installation. Look in the Monitor > Support page in "Installed Publisher Plugins" to find "EQUELLA Publisher (<version>)".
Alternatively if your user doesn't have 'System Admin' role then navigate to an existing Section Details page to try using the green "Add Publisher" button (near the

bottom of the page). Look for 'EQUELLA Publisher (version)' in the dropdown list of available publishers.

Configure EQUELLA Publisher plugin

To add and configure the EQUELLA Publisher plugin

1. Log in to Echo360 ESS server using an account with system administration privileges.
2. Select the **Configuration** tab, then select **Publishers** from the sub tabs. An example is shown in Figure 14.

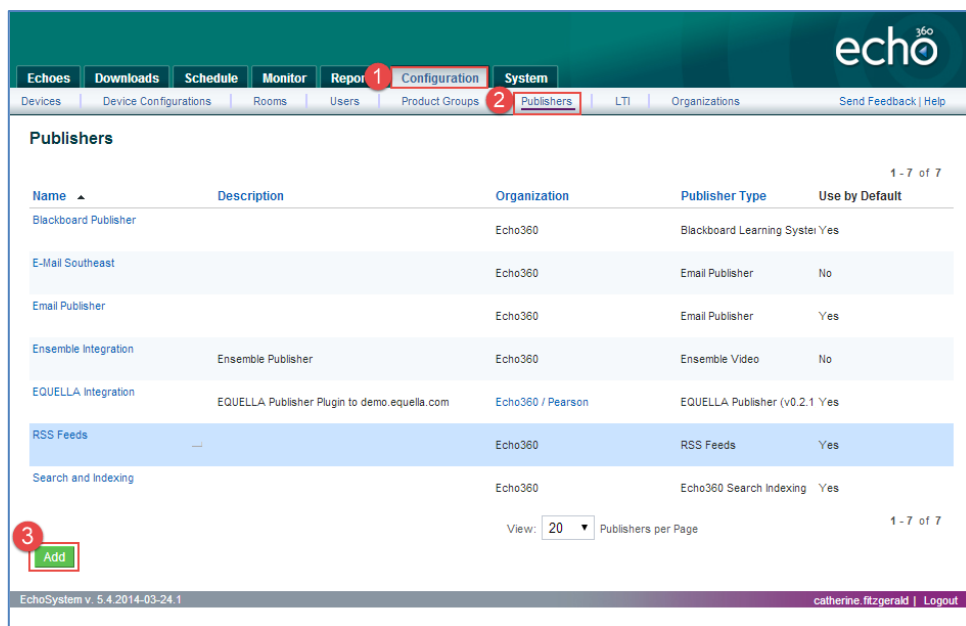


Figure 14 Publishers page

3. Click **Add**. The **Add Publisher** page displays, as shown in Figure 15.

The screenshot shows the 'Add Publisher' page in the Echo360 system. The page has a teal header with the 'echo 360' logo. Below the header is a navigation bar with tabs: Echoes, Downloads, Schedule, Monitor, Reports, Configuration, and System. Under the 'System' tab, there are sub-tabs: Devices, Device Configurations, Rooms, Users, Product Groups, Publishers (selected), Organizations, and Help. The main content area is titled 'Publishers > Add New Publisher' and 'Add Publisher'. It contains a 'Publisher Details' section with form fields for Name, Description, Organization (a dropdown menu), and Publisher Type (a dropdown menu). There is also a 'Use by Default' checkbox. At the bottom of the form are 'Save' and 'Cancel' buttons. The footer shows 'EchoSystem v. 5.1.2012-11-20.1*' and 'agibb.sysadmin | Logout'.

Figure 15 Add Publisher page

4. Enter a **Name**, **Description** (optional) and select an **Organization** from the drop-down list.
5. Choose *EQUELLA Publisher* from the **Publisher Type** drop-down list. This will reload the page with the EQUELLA Publisher configuration. An example is shown in Figure 16.

echo³⁶⁰

Echoes Downloads Schedule Monitor Reports Configuration System

Devices Device Configurations Rooms Users Product Groups **Publishers** LTI Organizations

Publishers > Add New Publisher

Add Publisher

Publisher Details

Name :

Description :

Organization :

Publisher Type :

Use by Default : ☐

Connection Configuration

Specify connection details for an EQUELLA server.

Application Base URL :

Connection OAuth Authentication

OAuth to EQUELLA Client Application Settings: These required values for a Client Credentials grant type of OAuth flow can be retrieved from "Settings > OAuth settings" in the target EQUELLA installation's institution site.

OAuth Client ID : OAuth Client Secret :

Customize Publishing

Choose to publish Podcast or Vodcast links with the EchoPlayer and EchoCenter links that will always be published to EQUELLA.

Select or modify metadata sent to EQUELLA? : ☒

Podcast? : ☒ Vodcast? : ☒

Publisher Configuration

Uniquely identify to a single EQUELLA installation this ESS by the System ID set below that should usually be the Customer ID from System Settings page. This publisher sends JSON to EQUELLA's API to create Resources in a specified Collection that will default to being owned by the EQUELLA user identified below (which if omitted will inherit from EQUELLA's OAuth Settings):

System ID / Customer ID :

Collection Name or UUID : Default Resource Owner :

Enable Verbose Logging? : ☐ Enable Debug Logging? : ☐

Test Connection Configuration

Set values for testing creating a Resource in the specified Collection in an EQUELLA server using the connection configuration and authentication values (above). Note: Captured time stamp format is ISO8601 with timezone, eg 2013-02-27T13:30:00+0800 and Metadata XML must have a values set for <name>, <title> and <description>, or be empty to generate the default minimum metadata.

Test Resource creation in EQUELLA connection test? : ☐

EchoSystem v. 5.4.2014-03-24.1 catherine.fitzgerald | Logout

Figure 16 Refreshed Add Publisher page

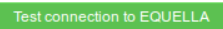
6. Enter the **Application Base URL** – this is your full EQUELLA URL.
7. Enter the **OAuth Client ID** and **OAuth Client Secret** (see [Configure EQUELLA OAuth](#) on page 10).

8. Choose to include Vodcast and/or Podcast URLs by selecting the **Select or modify metadata sent to EQUELLA** checkbox. This displays the options of **Podcast** and **Vodcast**.
9. Enter the **System ID/Customer ID** (usually the **Customer ID** found from the *System, System Settings* tab, in the *Identification Settings* section at the top of the page).

NOTE: Take note of the System ID/Customer ID as it is required to be entered when configuring the EQUELLA EchoSystem server. (See [Configure EQUELLA EchoSystem Servers](#) on page 13.)

10. Enter **Collection UUID** or **Name** (must be exact match).
11. Enter the UUID of the required user in **Default Resource Owner**. This user will show as the resource **Owner** for each Echo360 resource stored in EQUELLA. See [To find a user identifier \(UUID\) in EQUELLA](#) on page 18 for more information.

NOTE: Not putting a value in this field results in the resource owner for Echo360 items showing as 'Unknown user'.


12. Click  to test the connection to EQUELLA. This confirms that the ESS can communicate with EQUELLA and find the collection specified.

NOTE: The Default Resource Owner selected in step 11 needs to have the LIST_COLLECTION granted in EQUELLA for the connection to be successful.

13. To perform a test publish, select the **Test Resource creation in EQUELLA connection test** checkbox. This will reload the page and display the test configuration area where a publish test can be performed with real or fake data.

NOTE: This checkbox is used only for advanced troubleshooting, under the guidance of EQUELLA or Echo360 support (after ticking the Debug and Verbose boxes and adding the Publisher to a Test Section containing a single test Echo).

[To find a user identifier \(UUID\) in EQUELLA](#)

1. From **Settings, Administration Console**, select **User Management**.
2. Highlight **Internal Users** then click  **Configure** . An example is shown in Figure 17.

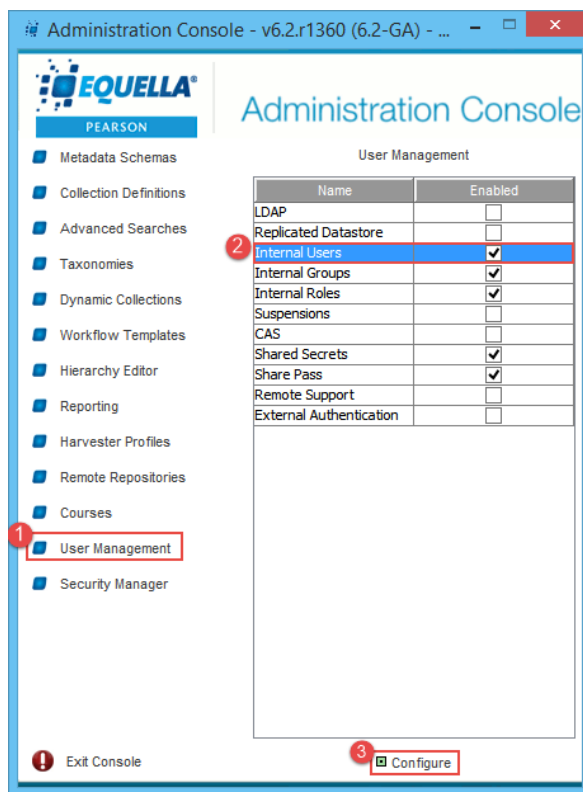


Figure 17 Administration Console - User Management

3. Enter the relevant text in the search box then click to display a list of matching results.
4. Highlight the required user to display the UUID (Identifier). An example is shown in Figure 18.

Figure 18 User Identifier (UUID)

This UUID can be copied and pasted into the **Default Resource Owner** field on the EQUELLA Publisher page.

Enable EQUELLA Publisher plugin

Add EQUELLA Publisher to an Echo360 Course section

1. Login to the ESS using an administrative account.
2. Click the **Schedule** tab and then click the **Courses** sub tab.
3. Select the required course. This will load the course page.
4. Select the required Section for the selected Course. This displays the Section Details page. At the bottom of the page there is a Configured Publishers section.
5. Click **Add Publisher** this displays the Add Publisher page.
6. Select the required publisher (e.g. EQUELLA Publisher) from the dropdown and click **Save**.

This will add the publisher to that Course's Section. It will cause all Echos in that section to be published to EQUELLA. This includes past and future Echos.

NOTE: Publishers can be added to individual Echos. Please refer to the Echo360 documentation for this process.

Configure EQUELLA Echo360 viewer

An Echo Presentation attachment consists of a number of links (up to 4) that can include:

- **EchoCenter link** – Links to a particular Echo within the EchoCenter which provides an overview of all Echos for a particular Course section. This is the default option.
- **Echo Player link** – Links directly to an Echo played using Echo360's Echo Player.
- **Vodcast link** – Links to the raw video cast of the Echo Presentation.
- **Podcast link** – Links to the raw audio of the Echo Presentation.

NOTE: The only guaranteed link on an Echo attachment is the EchoCentre link. The others may or may not be present depending on your EchoSystem Server (ESS) configuration.

EQUELLA allows the default action on an attachment to be changed to be any one of the above options.

To configure the EQUELLA Echo360 MIME type

1. Select **Settings** from the navigation menu, then **MIME types**. The **MIME type editor** search page displays. An example is shown in Figure 19.

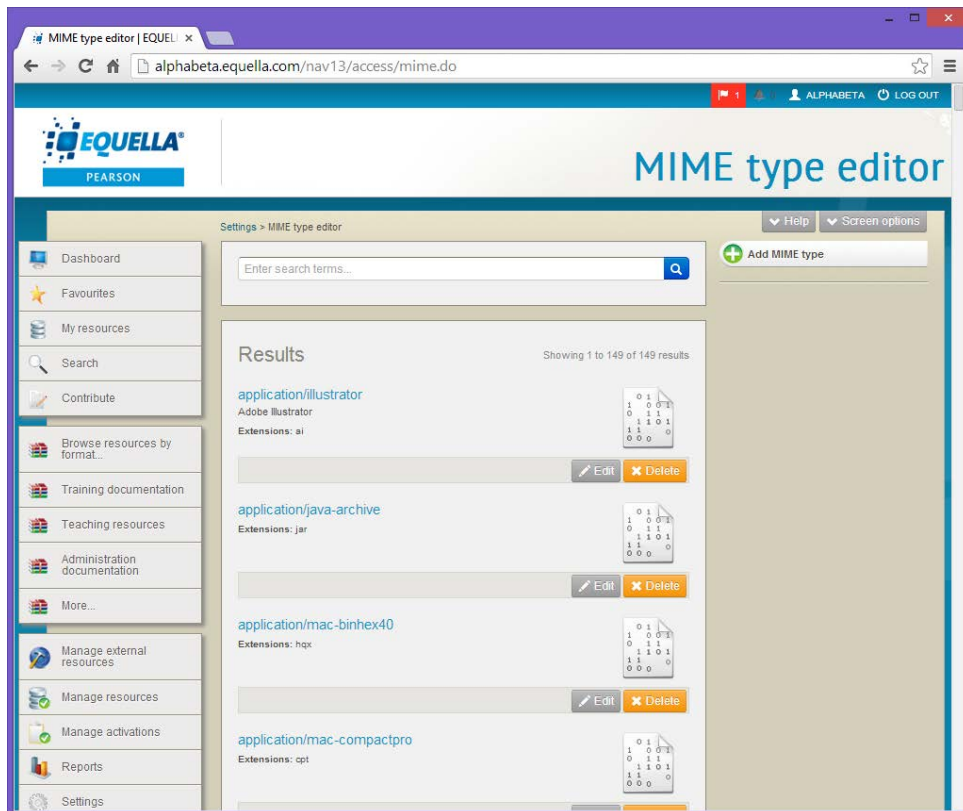



Figure 19 MIME type editor page

2. Type **equella** in the Search text box then click . Matching results display, as show in Figure 20.

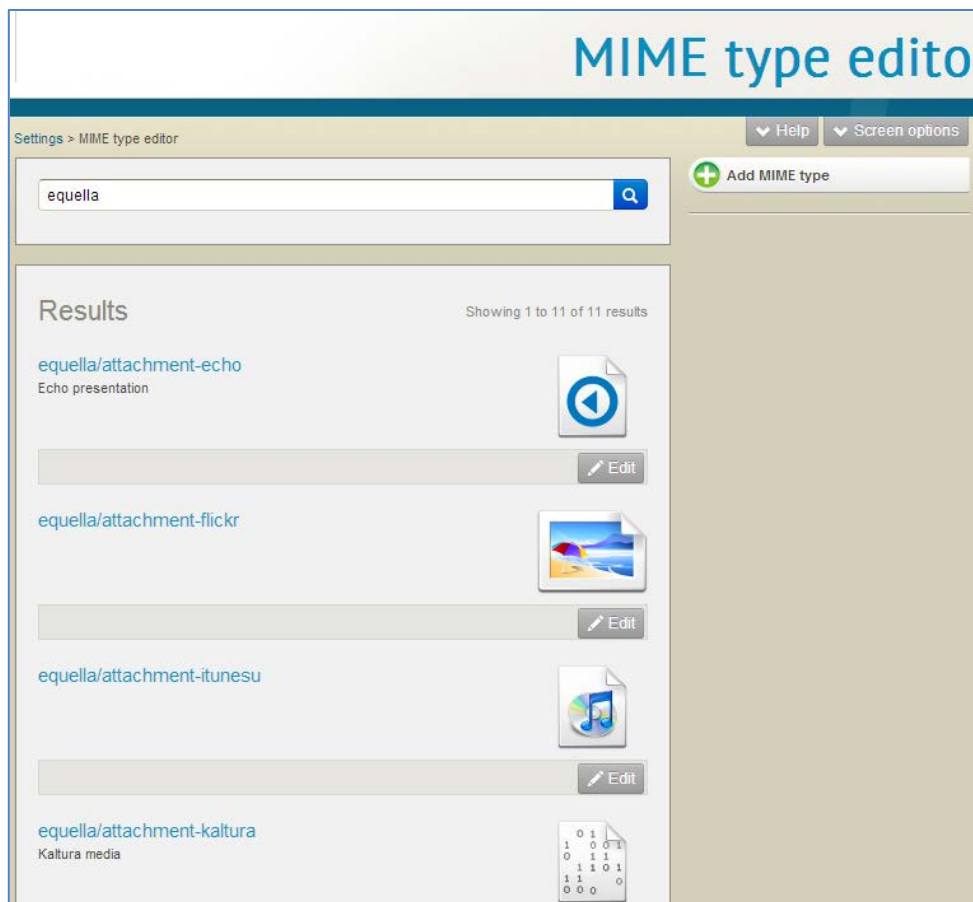


Figure 20 MIME type results

3. Click **equella/attachment-echo** from the results. The **Edit MIME type** page displays, as shown in Figure 21.

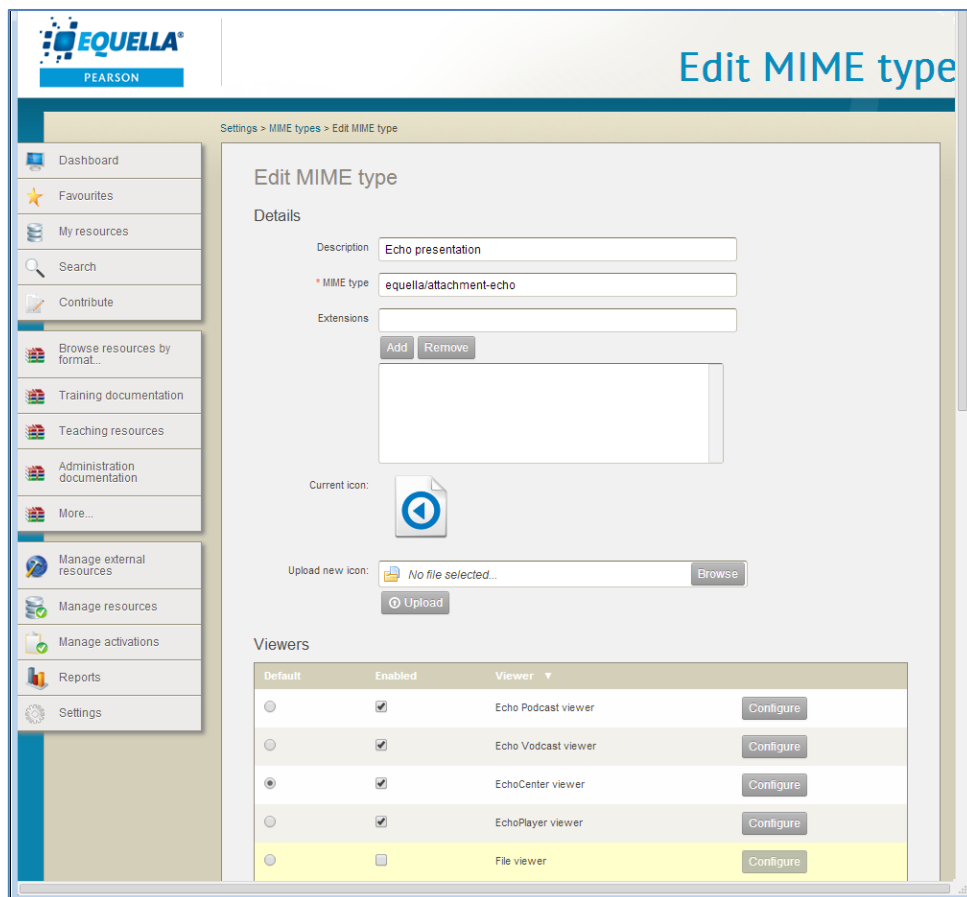


Figure 21 Edit MIME type page

In the **Viewers** section, relevant configured viewers display, and can be enabled or disabled. Additionally, the Default viewer for the MIME type can be selected and configuration options edited. An example of the configuration options dialog is shown in Figure 22.

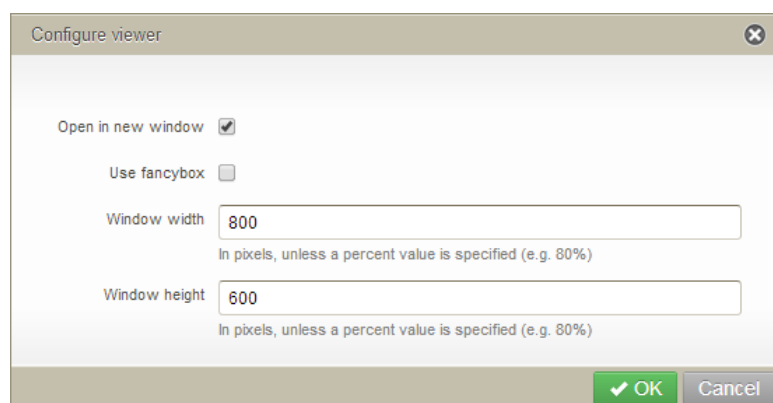


Figure 22 Configure viewer dialog

For more information on MIME type viewers see the *EQUELLA Administration Overview Guide*.

Contact Client Support

We are always happy to help.

If your organisation has a support agreement with EQUELLA then help is available at <http://equella.custhelp.com>.