



EchoSystem 5.5 Documentation
Device Monitor User Guide

August, 2015

Echo360 is continually updating the documentation. This manual is a snapshot as of the date above. Check the Echo360 documentation wiki for the most current version: <http://confluence.echo360.com/display/55/EchoSystem+Welcome+and+FAQs>

Administration Guide

In this section:

- [Overview](#)
- [Who Should Read This Document?](#)

Overview

This document guides EchoSystem administrative staff in using the EchoSystem to automate lecture and instructional capture.

Who Should Read This Document?

This document is intended for the personnel responsible for administering the EchoSystem on a day-to-day basis. It may also be useful for other systems administration personnel associated with management of the related system components. Academic Staff should read the [Academic Staff Guide](#).

EchoSystem Administrators

Personnel responsible for every day functioning of the EchoSystem and lecture capture.

Need to consider

The EchoSystem quickly becomes a critical system in the institutional technology landscape. As deployments grow more classrooms are captured and more students review instructional materials. It is important to be competent with EchoSystem operations such as:

- EchoSystem configuration
- Capture device and Media Processor management
- Workflow configuration
- Capture schedules
- System monitoring

System Administrators

Personnel responsible for other institutional systems with which EchoSystem will integrate. Blackboard or other CMS/LMS/VLE systems are examples of these types of systems. Authentication and scheduling systems are another example.

Need to consider

- EchoSystem integration
- EchoSystem APIs

EchoSystem Server Basics

In this section:

- [Access the User Interface](#)
- [Server UI Navigation](#)
- [Page Types](#)
- [Download Installers](#)
- [Start or Stop the ESS](#)
- [Start or Stop Wowza](#)

Access the User Interface

The EchoSystem Server user interface (ESS UI) is a secured web-based interface accessible from any standard web browser. The EchoSystem administrator [configures](#) the web interface address after [installation](#).

The default address for the UI is:

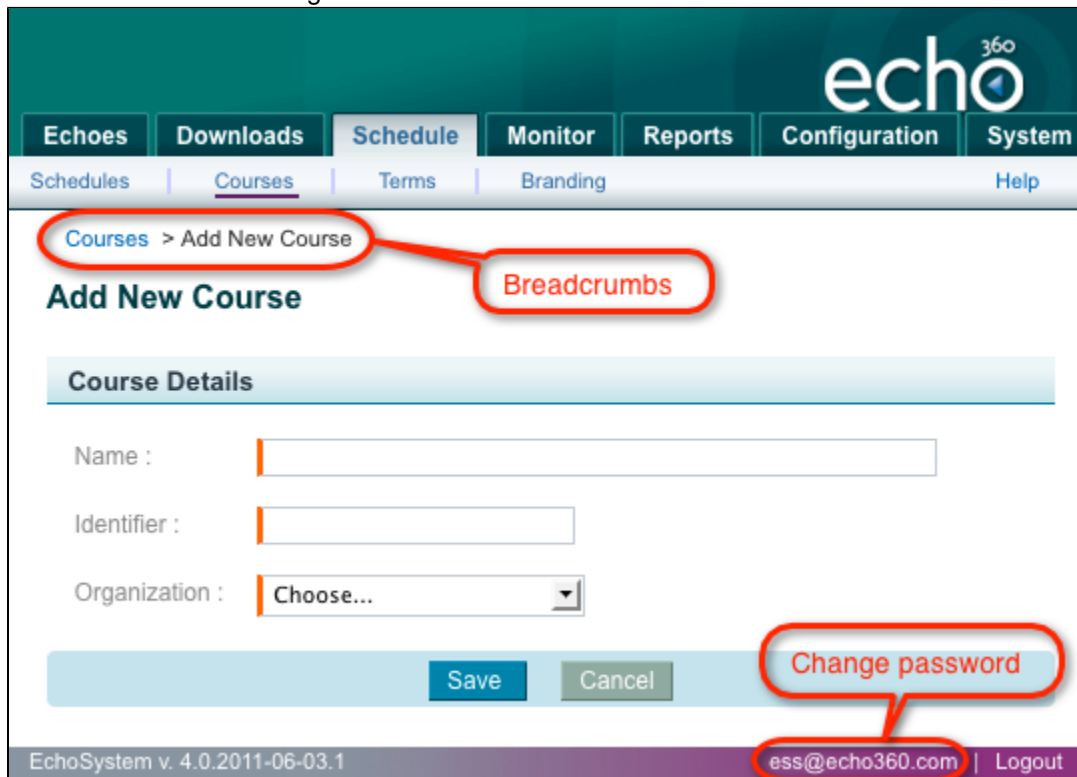
`https://ess.institution.edu:8443`

where *ess.institution.edu* is the host name of the EchoSystem Server (ESS).

The ESS UI requires authentication. The default user name for the UI is *ess@echo360.com* and the default password is *password*. See [Change the Admin Password](#) for instructions on changing this password.

Server UI Navigation

The ESS UI uses a tab and subtab approach to navigation. At the top of the interface there are several tabs. During some operations you may also see a breadcrumb, identified in the figure below, which simplifies navigation to screens beyond a subtab. There are three other navigational items displayed at all times: *Help*, *Logout* and *Username* (i.e., *ess@echo360.com*). The *Help* link takes you to this documentation. The *Logout* link ends your UI session. The *Username* link takes you to the change password screen, as identified in the figure below. The image below shows each of these navigation items.



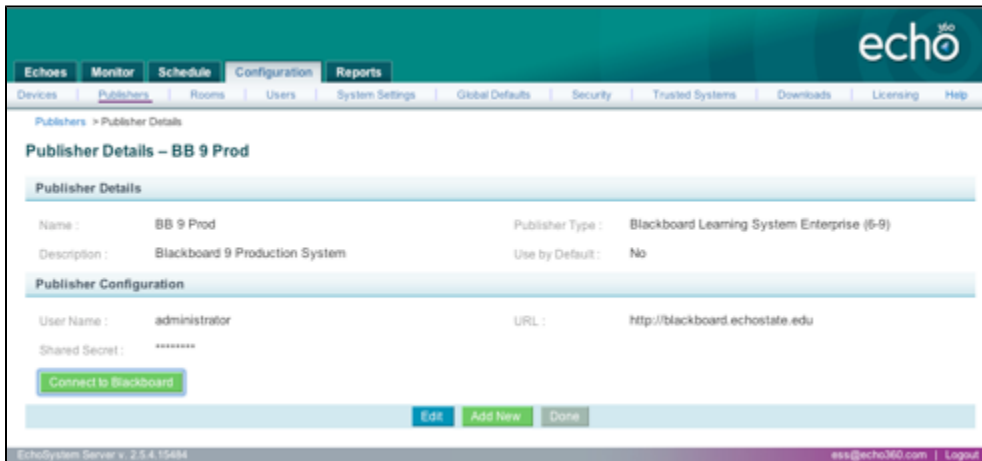
Page Types

The UI provides the ability to both view and edit properties for certain items. These pages are referred to as *show*

pages and *edit pages*. Show pages provide a listing of the properties for an item. Edit pages allow the user to set or modify properties and then save them. For example, the show page for a Blackboard publisher displays the information entered for the publisher, while the edit page allows you to edit that information.

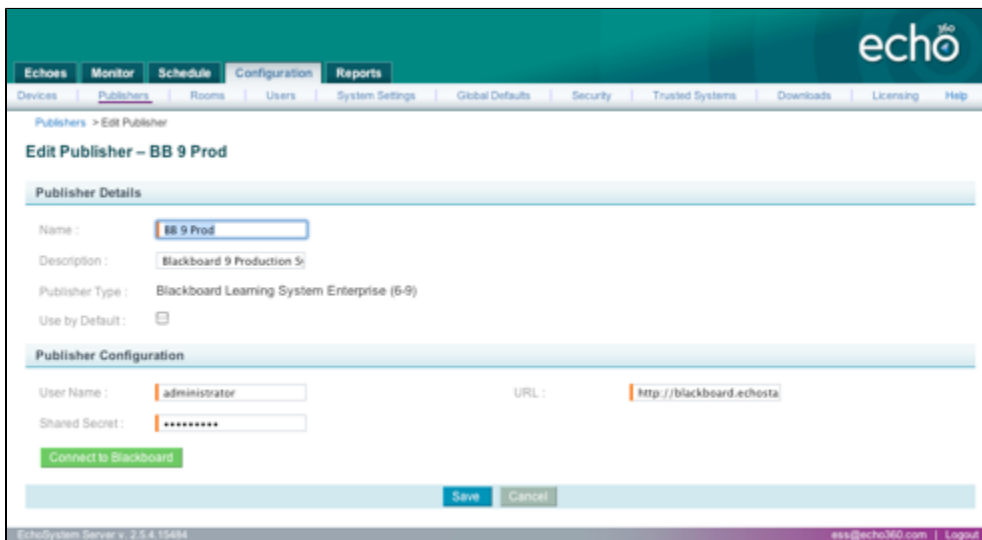
Show Page Example

The following figure is an example of a Show page.



Edit Page Example

The following figure is an example of an Edit page.



Download Installers

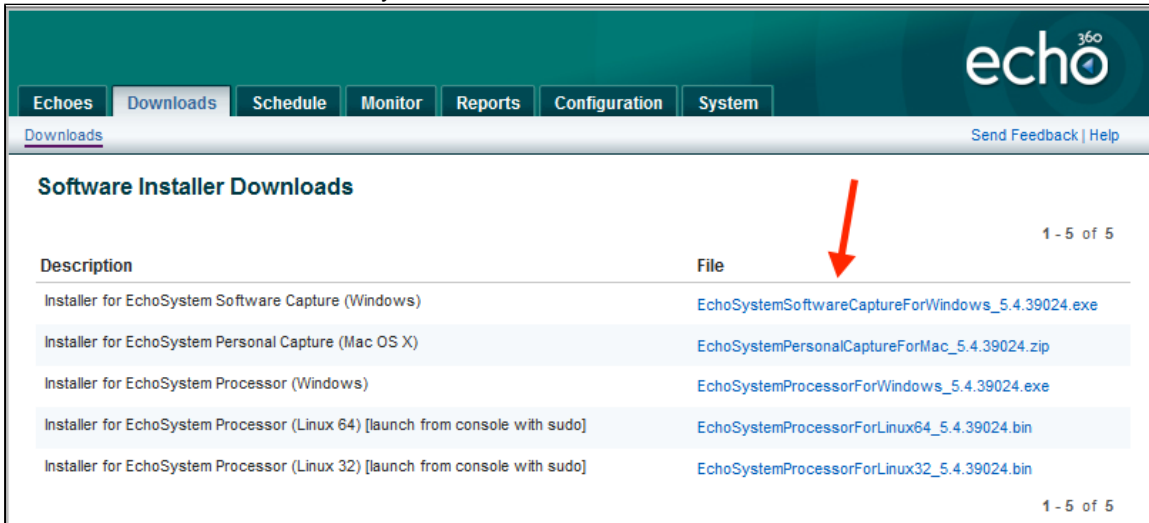
Installers for the EchoSystem components listed below can be downloaded from the Echo360 website:

- Classroom Capture
- Personal Capture
- Processor (media processor)

Follow these steps.

1. Navigate to **Downloads > Downloads**.

- Click on the link for the installer you need.



- Installer instructions differ by component. Follow the on-screen instructions.

Start or Stop the ESS

The ESS runs as a service or daemon. Managing this service is specific to the platform. Starting, stopping and restarting this service is referred to throughout this document. The ESS UI also indicates when service restarts are required.

Wait Five Minutes

After restarting the ESS, wait five minutes before connecting. This ensures that the ESS is fully started.

Start ESS on Windows

- From the Windows taskbar select **Start > Programs > Administrative Tools > Services**. The Services dialog opens.
- Select the **EchoSystem Server** service.
- Click **Start**. The ESS service starts on your local computer.

Stop ESS on Windows

- From the Windows taskbar select **Start > Programs > Administrative Tools > Services**. The Services dialog opens.
- Select the **EchoSystem Server** service.
- Click **Stop**. The ESS service stops on your local computer.

Restart ESS on Windows

- From the Windows taskbar select **Start > Programs > Administrative Tools > Services**. The Services dialog opens.
- Select the **EchoSystem Server** service.
- Click **Restart**. The ESS service restarts on your local computer.

Start ESS on Linux

- Open a terminal prompt.
- Type in the start command. The command is:

```
sudo /etc/init.d/echosystemserverd.sh start
```

i Notice the Space

Note that there is a space between the file name and the start command.

Status messages show you when the service starts.

Stop ESS on Linux

1. Open a terminal prompt.
2. Type the stop command. The command is:

```
sudo /etc/init.d/echosystemserverd.sh stop
```

i Notice the Space

Note that there is a space between the file name and the stop command.

Status messages show when the service stops.

Restart ESS on Linux

1. Open a terminal prompt.
2. Type in the restart command. The command is:

```
sudo /etc/init.d/echosystemserverd.sh restart
```

i Notice the Space

Note that there is a space between the file name and the restart command.

Status messages show when the service stops and then starts.

Start or Stop Wowza

The Wowza Media Server (Wowza) runs as a service or daemon. Managing this service is specific to the platform. Starting, stopping and restarting this service is referred to throughout this document. The ESS UI also indicates when service restarts are required.

Start Wowza on Windows

1. From the Windows taskbar select **Start > Programs > Administrative Tools > Services**. The Services

dialog opens.

2. Select the **Wowza Media Server** service.
3. Click **Start**. The Wowza service starts on your local computer.

Stop Wowza on Windows

1. From the Windows taskbar, select **Start > Programs > Administrative Tools > Services**. The Services dialog opens.
2. Select the **Wowza Media Server** service.
3. Click **Stop**. The Wowza service stops on your local computer.

Restart Wowza on Windows

1. From the Windows taskbar, select **Start > Programs > Administrative Tools > Services**. The Services dialog opens.
2. Select the **Wowza Media Server** service.
3. Click **Restart**. The Wowza service restarts on your local computer.

Start Wowza on Linux

1. Open a terminal prompt.
2. From the terminal prompt, type in the start command. The command is:

```
sudo /etc/init.d/WowzaMediaServer start
```

Status messages show when the service starts.

Stop Wowza on Linux

1. Open a terminal prompt.
2. From the terminal prompt, type in the stop command. The command is:

```
sudo /etc/init.d/WowzaMediaServer stop
```

Status messages show when the service stops.

Restart Wowza on Linux

1. Open a terminal prompt.
2. From the terminal prompt, type in the restart command. The command is:

```
sudo /etc/init.d/WowzaMediaServer restart
```

Status messages show when the service stops and then starts.

System Configuration

In this section:

- [Overview](#)

Overview

EchoSystem configuration is done when first installing the system or when preparing for a new term. Some configuration tasks are also done during the normal operation of the system. Common configuration tasks apply to the EchoSystem Server (ESS) itself, supporting server infrastructure, devices and scheduling. All of these tasks are driven through the ESS user interface.

You manage most UI-based system configuration tasks on the System tab and the Configuration tab. The following pages discuss these configuration settings and provide instructions for these tasks:

- [Configure System Settings](#)
- [Configure the Flash Media Streaming Server](#)
- [Advanced Configuration Options](#)
- [Server Configuration for Presenters](#)

Apart from System Configuration, there are other system-wide settings you should make before continuing with setting up the various objects in the system for lecture capture. The following pages discuss these settings and configuration tasks, and provide a variety of options for the organization of the system:

- [Localize the EchoSystem](#)
- [Defaults and Inheritance](#)
- [Delegated Administration and Organizations](#)

Configure System Settings

In this section:

- [Overview](#)
- [System Settings](#)
- [Save Changes](#)

Overview

The system settings page opens automatically after a fresh installation and first-time login.

If you need to return to this page later, select **System > System Settings**. Click **Edit** to make changes.

System Settings

You can set the following system defaults on the System Settings page.

- [Identification Settings](#)
- [Application Network Settings](#)
- [Content Network Settings](#)
- [Intake Settings](#)

- [Active Echo Settings](#)
- [Inactive Echo Settings](#)
- [Streaming Settings](#)
- [Application Security](#)
- [System Directories](#)
- [Log Retention Policy](#)
- [Academic Staff Upload Settings](#)
- [Room Settings](#)
- [Server Network Settings](#)

Details on these settings are provided in the sections that follow.

Identification Settings

Identification Settings	
<i>Customer and System Identification</i>	
Customer Identifier (Root Organization) :	<input type="text" value="Sample Customer License"/>

The table below provides a description for the Identification Settings option.

Setting	Description
Customer Identifier (Root Organization)	This is the unique licensing identification number provided to your institution by Echo360 Sales as part of your system purchase. It is used to assign licenses to your EchoSystem (ESS).

Application Network Settings

Application Network Settings	
<i>These settings determine the URL used to log in to the EchoSystem Server and the port bindings. Select the protocol with reverse proxy if the application is hosted behind a proxy server or if iptables is being used on Linux to serve on privileged ports.</i>	
Protocol :	<input type="text" value="All HTTPS"/>
Host Name :	<input type="text" value="ess1-white.qa.echo360.com"/>
Port (HTTPS) :	<input type="text" value="8443"/>

The table below provides descriptions for the Application Network Settings options.

Setting	Description
---------	-------------

<p>Protocol</p>	<p>Specify the protocol to be used for the ESS application and for content delivered to users. Your choices include:</p> <ul style="list-style-type: none"> • All HTTPS • HTTPS for App/HTTP for Content • HTTPS for App/HTTP for Content with Reverse Proxy • HTTPS with Reverse Proxy <div style="border: 1px solid orange; padding: 10px;"> <p>⚠ Avoid Using Mixed Content if Possible</p> <p>Later versions of browsers like Chrome, Firefox and Internet Explorer will not serve mixed content (HTTPS for Application and HTTP for Content) by default. Specifically users may not be able to view embedded EchoCenter and EchoPlayer content, or be able to Edit Media on the ESS.</p> <p>To avoid these problems, select either All HTTPS or HTTPS with Reverse Proxy for this setting. Our internal tests have indicated that the encryption overhead for serving HTTPS content does not significantly impact page load times. If this is not possible, you must instruct their users to set their browser preferences or properties to "Allow Mixed Content".</p> </div>
<p>Host Name</p>	<p>The name of the application server.</p>
<p>Port (HTTPS)</p>	<p>Port used for the HTTPS protocol.</p>

⚠ Application Network Settings and LTI Integrations

If you are using [LTI-Based Publishing](#) to provide EchoSystem content, set your Application Network Settings *prior* to configuring the LTI integration. If you change the HTTP/HTTPS configuration in the Application Network Settings *after* creating the LTI profile, you will have to delete and re-create the LTI tool within the LMS. This is because changing the HTTP/HTTPS settings also changes the ESS launch URL for the LTI tool.

Content Network Settings

Content Network Settings	
<p><i>These settings determine the URL used for serving content (EchoPlayer and EchoCenter). If applicable, the legacy port allows previously published non-HTTPS URLs to be redirected to equivalent HTTPS URL.</i></p>	
Host Name :	<input type="text" value="ess4-white.qa.echo360.com"/>
Legacy Port (HTTP) :	<input type="text" value="8080"/>

The table below describes the information that needs to appear in each of the Content Network Settings fields. The field labels differ in View mode and Edit mode; both are noted in the table.

NOTE that if you are using an *internal* web server and the Application Network Settings (above) are configured for ALL HTTPS (with or without Reverse Proxy), the Host Name and Legacy Port (HTTP) settings configured here are used for [RSS feeds](#). If you are using RSS Feeds and an *external* web server, see [Active Echo Settings](#) below.

Setting	Description
Public Content Base URL/Host Name	The URL that the ESS will use to serve content.
Public Legacy Content Base URL/Legacy Port (HTTP)	Port used for the Legacy content previously published using the HTTP protocol. This is also the base Port/URL for RSS feeds, if you are using an internal web server and serving content over ALL HTTPS (with or without Reverse Proxy).

Intake Settings

Presentations are transferred by capture devices to an incoming FTP directory. The ESS provides a native SFTP server application supporting both SFTP with and without encryption. The ESS uses the *Internal* SFTP server by default. If you are configuring the system with an external FTP server you can do so with these properties.

Intake Settings	
<p><i>Capture stations will transfer recordings with FTP to a specific folder. You may use the internal SFTP server or an external SFTP/FTP server of your choice. If the Default Processor path is set, this will allow the EchoSystem Processor(s) to access files directly instead of using SFTP/FTP. It must point to the same folder as the FTP Folder except from the perspective of an EchoSystem Processor (i.e. UNC or NFS path).</i></p>	
FTP :	<input type="text" value="Internal SFTP <sftp://ec2-50-19-147-36.compute-1.amazonaws.com:8022/>"/> <input type="button" value="Test Settings"/>
FTP Folder :	<input type="text" value="D:\echo360_dir\upload\int"/>

The table below provides descriptions for the Intake Settings options.

Setting	Description
---------	-------------

FTP Server

Select **Internal** to use the SFTP server installed with the ESS or select **External** to use an external FTP/SFTP server. If External FTP Server is selected, then a valid FTP user name and FTP Password are required. If you use the internal SFTP server these fields are automatically populated.

Generally, if you are considering an external FTP/SFTP server, you should have already decided to use a NAS or SAN storage facility for content, which provides better system performance.

If you are intending to use an external FTP/SFTP server, you must:

- Set up an account that the capture devices will use to log in.
- Give the account read and write access to the directory that will store the content.
- Appropriately configure the settings below with these account and directory settings.

<p>FTP Protocol</p>	<p>If you selected Internal for the FTP server field, select S FTP or SFTP w/o Encryption for this field.</p> <p>If you selected External for the FTP server field, select FTP, SFTP or SFTP w/o Encryption for this field.</p> <p>Select FTP if you are using an external FTP server for file transfers across your network. If you selected the bundled (internal) intake setting, you must select either SFTP or SFTP w/o Encryption. FTP does not encrypt data, so it is the fastest of the three protocol options. However, it is not as secure as SFTP and does not ensure data integrity as SFTP w/o Encryption does.</p> <p>Select SFTP to transmit encrypted files. This option ensures that files are secure. However, it can dramatically slow the data transfer rate between the appliance and the ESS if the appliance captures consecutive presentations.</p> <p>The data transfer rate slows because encrypting files creates additional "work" for the capture appliance. Say, for example, that the capture appliance is busy encrypting and transferring one presentation, but must also capture a second presentation at the same time. Both presentations will be captured, encrypted, and transferred, but the transfer rate for the first presentation could drop by 90 percent, from 1 mbps to 100 kbps. The presentation will become available to students eventually, but later than it would have been otherwise.</p> <p>Select SFTP w/o Encryption when you want to ensure data integrity but do not require data encryption. Although SFTP is normally encrypted, this setting programmatically disables the encryption feature.</p> <p>Because this option does not encrypt data, the appliance can transfer a presentation at 1 mbps or faster, even if it is capturing consecutive presentations.</p>
<p>FTP User Name</p>	<p>The user name for the FTP/SFTP server.</p>
<p>FTP Password</p>	<p>The password for the FTP/SFTP server.</p>
<p>FTP Folder</p>	<p>The absolute directory path (from the ESS application's perspective) where the FTP server receives data and the ESS should look for new capture uploads.</p>

<p>FTP Host</p>	<p>The host name of the FTP server, which by default is the ESS host. This can be a Fully Qualified Domain Name (FQDN) or an IP address. FQDN is recommended. This value will be provided to capture devices and media processors that are handling content, and care should be taken that any FQDN that is provided is one that the media processor or capture device can resolve to an IP address via DNS.</p>
<p>FTP Port</p>	<p>The port number of the FTP server. When configured for the internal SFTP server, the default port is 8022. If the server is external, the typical port settings are:</p> <ul style="list-style-type: none"> • FTP: 21. Alternate: 8021 • SFTP: 22. Alternate: 8022
<p>FTP Path</p>	<p>If you selected External for the FTP server field, this field appears. FTP Path is the virtual FTP/SFTP path to the directory that matches the FTP folder location.</p> <p>Example: Say that the FTP folder is /echo/upload. If the SFTP path to get to that folder is:</p> <ul style="list-style-type: none"> • sftp://echoupload.university.edu/echo/upload, then the FTP Path is /echo/upload • sftp://echoupload.university.edu/upload, then the FTP Path is /upload

Active Echo Settings

These settings define where active Echoes reside and how the HTML files for the presentations are served. Both the URL and directory must point to the same physical location. All paths (absolute, UNC, or mapped drives) must be valid, and the base directories must already exist. Be advised that selecting Internal or External web server will show different fields to complete.

Active Echo Settings

Active Echoes are 'Available' for users to access. Both the folder location and URL must point to the same physical location. For External Web Server configuration, HTTP port is needed for RSS feeds to function normally in "ALL HTTPS" and "ALL HTTPS with reverse proxy" modes.

Web Server :

Host Name : Port (HTTPS) :

HTTP Port :

Base URL Path :

Content Folder :

The table below provides descriptions for the Active Echo Settings options. **NOTE** that if you are using an External web server and RSS Feeds for publishing content, be sure the Host Name and HTTP port are configured properly. These are used to generate the base URL for RSS feeds from an External web server..

Setting	Description
---------	-------------

<p>Web Server</p>	<p>Select Internal or External from the list. By default, the ESS uses Jetty as the internal web server application, and the <i>Internal</i> web server is selected.</p> <p>If you have configured an External web server, be sure to identify the Host Name of the external web server along with the proper Ports (both HTTPS and HTTP) through which content is to be served. If you are using an external Apache or IIS web server, see also External Web Server Configuration for Live Chat for information on possible web server configuration file changes needed.</p>
<p>Content Folder</p>	<p>This directory contains the presentation files, including Flash SWF, thumbnails, audio, and HTML files. The Flash FLV files are placed in the Flash folder if the Flash Folder setting is configured, or in this folder if it is not. Presentation content in this location is available.</p> <p>This is the only configuration field shown for Internal web servers.</p> <div style="border: 1px solid green; padding: 10px; margin: 10px 0;"> <p><input checked="" type="checkbox"/> Best Practice: Configure the Flash Folder Setting</p> <p>We recommend that you configure the Flash Folder setting to give users the best playback experience.</p> </div>
<p>Host Name</p>	<p>Identifies the fully qualified host name of the External web server.</p>
<p>Port (HTTPS)</p>	<p>Identifies the Port number that the External web server will use to deliver active echoes.</p> <p>NOTE that if your Application Network Settings are set to serve mixed content (HTTPS for App/HTTP for Content, with or without Reverse Proxy) this field is labeled "HTTP Port" and must be the same port number as the other HTTP Port field in this section.</p>
<p>HTTP Port</p>	<p>Identifies the Port number that RSS feeds will use to deliver content from the External web server. RSS feeds MUST use an HTTP port for content.</p>
<p>Base URL Path</p>	<p>Identifies the base path on the External web server where active echoes are stored for content delivery.</p>

Inactive Echo Settings

Inactive Echoes are not available for student review. These settings define the location for the three types of inactive Echoes. All paths (absolute, UNC, or mapped drives) must be valid, and the base directories must already exist.

Inactive Echo Settings	
<i>An Echo may be moved into one of several inactive states. Specifying a folder location will enable the feature.</i>	
Unavailable Folder :	<input type="text" value="c:\echo360\attic"/>
Deleted Folder :	<input type="text" value="c:\echo360\deleted"/>
Archived Folder :	<input type="text" value="c:\echo360\archive"/>

The table below provides descriptions for the Inactive Echo Settings options.

Setting	Description
Unavailable Folder	ESS moves presentations into this directory when the user makes them unavailable. Unavailable presentations are typically ones that are not viewable by users, but are stored on a locally available media such as a NAS. They are presentations that can quickly be made available again, such as presentations that are taken off-line for editing.
Archived Folder	ESS moves presentations into this directory when the user archives them. It is good practice to archive content to an external location (possibly tape or other off-line media) so it does not consume critical and expensive ESS storage space. However, archived Echoes are not available. They cannot be viewed by students until you unarchive them. <div style="border: 1px solid blue; padding: 10px; margin-top: 10px;"> <p>i When Choosing the Archive Location</p> <p>Make sure the ESS can access the archive location.</p> </div>
Deleted Folder	ESS moves presentations into this directory when the user deletes them. They remain here until permanently deleted from the system or reinstated (undeleted) through the ESS.

Streaming Settings

The audio and video content is streamed during Echo playback. Streaming settings include the base directory where ESS stores all of the streaming audio and video files for presentations (FLV files) and the URL where the EchoPlayer accesses the streaming content. Both the directory and URL must point to the same physical location.

Streaming Settings

Streaming your video files protects the intellectual property of your lecture, and often improves the content viewer's experience. The folder may be local to the EchoSystem Server or on a network addressable location (NAS, SAN, UNC). Wherever it is located, the associated Streaming URL must point to the same folder. When using the Internal Wowza server, the URL for both Echoes and Apreso presentations must reference the same host.

Echo Content

Flash Streaming : External Flash Server ▾

External Flash URL : Flash Folder :

Live Flash URL : Live Streaming Server Host :

Apreso Content

Apreso Flash URL :

Real Media URL : Real Media Folder :

Windows Media URL : Windows Media Folder :

The table below provides descriptions for the Streaming Settings options.

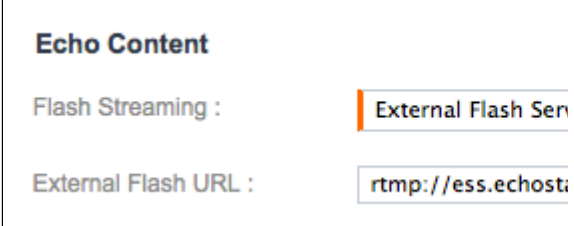
Setting	Description
Flash Streaming	<p>Select the streaming server that will be used to stream presentation playback content. Your choices include:</p> <ul style="list-style-type: none"> External Flash Server (can be either Wowza or Adobe FMS) Internal Wowza Server (only available for existing customers who upgrade to EchoSystem 5.4) <div style="border: 2px solid orange; padding: 10px; margin-top: 10px;"> <p>Upgrading to 5.4 with an Internal Wowza Configuration</p> <p>Existing users upgrading to EchoSystem 5.4, and who are using an Internal configuration of Wowza can continue to do so; the ESS will work with the existing Wowza v3.5, and will update the necessary items on upgrade. However, if you want to upgrade to Wowza 4, you must change to using an External configuration of Wowza.</p> <p>Upgrading to Wowza 4 and converting to an External Wowza media server configuration are both strongly recommended. See Configure the Flash Media Streaming Server and Configure an External Wowza Media Server for instructions.</p> </div>

External Flash URL / Internal Wowza URL

This setting defines the Base URL for the Flash application. The label on this setting varies, depending on your selection in the Flash Streaming setting.

If you selected **External Flash Server** as the Flash Streaming setting, this field is labeled **External Flash URL**.

- Recent versions of Adobe's Flash Player require that *both* the application and the instance name be specified.
- The External Flash URL is comprised of the following components: the RTMP protocol, the FQDN (fully-qualified domain name) of the Wowza or FMS server, the on-demand application name (echo), and a `_definst_` pointer. For most External Flash Server installations, the `_definst_` parameter is required at the end of the standard streaming server URL. The figure below shows an example External Flash URL.



The screenshot shows a configuration window titled "Echo Content". It contains two rows of settings. The first row is "Flash Streaming :" with a dropdown menu set to "External Flash Ser". The second row is "External Flash URL :" with a text input field containing "rtmp://ess.echo:".

If you selected **Internal Wowza Server** as the Flash Streaming setting, this field is labeled **Internal Wowza URL** and uses the host name of the ESS along with the on-demand application name (echo).

<p>Live Flash URL</p>	<p>This setting defines the base URL for the Flash streaming of live webcasts. You <i>must</i> use a Wowza Media Server for live webcasting.</p> <p>When using an External Wowza Server, the Live Flash URL should consist of the same elements as the External Flash URL above, but use the live application name (echolive) instead of the on-demand application name. For most External Flash Server installations, the <code>_definst_</code> parameter is required at the end of the standard streaming server URL.</p> <p>Example: <code>rtmp://ess.echostate.edu/echo live/_definst_</code></p> <p>When using an Internal Wowza server, the Live Flash URL uses the host name of the ESS along with the live application name (echolive). For example: <code>rtmp://es s.echostate.edu/echolive</code></p>
<p>Flash Folder</p>	<p>The path of the directory where the Flash streaming content is going to be stored.</p> <p>This may be a Windows UNC path, a Windows mapped drive, or a Unix-style path. If you use an external storage such as a SAN for this content, then the ESS service or daemon needs both read and write access to this directory. The Flash streaming server requires read access only.</p>
<p>Live Streaming Server Host</p>	<p>This setting identifies the host name of the Wowza Media Server that will be streaming the live webcasts, if applicable.</p> <p>When using an External Wowza server, the Live Streaming Server Host should be the FQDN (without schema or path components) of your Flash server.</p> <p>When using an Internal Wowza server, the Live Streaming Server Host is the same as the host name of the ESS.</p>
<p>Real Media URL</p>	<p>This setting is only used with Apreso Classroom capture stations configured to capture video using Real. Required if specifying a Real Media streaming directory. Enter the Base URL to the Real Media server mount point.</p> <p>Example: <code>rtmp://realserver.institution.edu /echo</code></p>

Real Media Folder	This setting is only used with Apreso Classroom capture stations configured to capture video using Real. Enter the absolute path of the directory where the Real Media streaming content is stored.
Apreso Flash URL	<p>The ESS supports presentations created by the legacy Anystream Apreso Classroom 1.3.10 system.</p> <p>This is the Flash base URL specific to content created by the Apreso Classroom capture stations. The Apreso-created content needs slightly differently settings to produced optimized playback and therefore uses a separate Flash application.</p> <p>When using External Flash streaming servers, this may be unique. For most External Flash server installations, the <code>_definst_</code> parameter is required at the end of the standard streaming server URL. Example: <code>rtmp://ess.echostate.edu/apreso/_definst_</code></p> <p>When using the Internal Wowza server, the host name must be the same as that defined for the Internal Wowza server.</p>
Windows Media URL	This setting is only used with Apreso Classroom capture stations configured to capture video using Windows Media. Required if specifying a Windows Media streaming directory. Enter the Base URL to the Windows Media Publish Point. Example: <code>mms://windowsmedia-server.institution.edu/echo</code>
Windows Media Folder	This setting is only used with Apreso Classroom capture stations configured to capture video using Windows Media. Enter the absolute path of the directory where the Windows Media streaming content is stored.

Use the table below as a quick guide to the options you can configure based on your capture configuration:

Capture Device and Products Created	Streaming Settings
EchoSystem SafeCapture HD, EchoSystem Capture Appliance, Classroom Capture or Personal Capture creating Podcast/Vodcast content.	Leave these settings as default. Generating a Podcast does not generate any streaming content.
EchoSystem SafeCapture HD, EchoSystem Capture Appliance, Classroom Capture or Personal Capture creating EchoPlayer content.	Specify the <i>Flash Folder</i> and either <i>Internal Wowza URL</i> or <i>External Flash URL</i> . You may leave the other settings blank.

Application Security

Application Security	
<p>The application security settings set the security module used to secure staff and instructor logins to the ESS application (UI) and instructor logins via Personal Capture and the capture device Web UI or REST API. Create and modify the settings for application security modules on the Configuration > Security tab. Select "Internal ESS Database" to manage user authentication in the ESS. Select an application security module to manage user authentication externally using LDAP. All users assigned the "System Admin" role will automatically fall back to the internal ESS database in the event authentication fails against the configured module. Select the "Enable Fallback to Internal ESS Database" check box to enable this option for all other user roles (instructor and scheduler).</p>	
Security Module :	Internal ESS Database ▾
Enable Fallback to Internal ESS Database :	<input type="checkbox"/>
Allow ESS users to login to view content :	<input type="checkbox"/>

Use the options in the following table to manage staff and Instructor logins to the ESS application (UI) and Instructor logins to Ad Hoc and Personal Capture.

Setting	Definition	Inheritance
Security Module	The module used to manage user authentication to the ESS. You can add and edit security modules on the System > Security tab. See LD AP Authentication if you do not want to use the internal ESS database.	N/A
Enable Fallback to Internal ESS Database	<p>Applies if you are using the LDAP security module. If Yes, the ESS database will be checked if LDAP authentication fails.</p> <ul style="list-style-type: none"> Users with the System Administrator, Parent Organization Administrator, or Child Organization Administrator roles will always be checked against the ESS database when LDAP fails. By entering Yes, you ensure that users with other roles (Scheduler, Instructor) will be checked against the ESS database when LDAP fails. 	N/A

Allow ESS users to login to view content	<p>This setting applies if you have collaboration services. If you do, we recommend that this setting be Yes. When Yes, the ESS checks the local database to grant Instructors and Teaching Assistants moderation privileges.</p> <p>Enter Yes when LDAP or seamless login is used to secure the section.</p>	N/A
---	--	------------

System Directories

The System Directories entry shows where device software update files are placed. You can leave this at the default unless you have a need to change the location.

System Directories
<p>The folder for device software updates is shown here.</p> <p>Device Software Update File Goes Here : C:\Program Files\Echo360\Server\plugins</p>

Log Retention Policy

The Log Retention Policy allows you to determine how many days log files will remain on the system. The default is 30 days, but you can set it for as long as you like. Any changes made to the retention policy are applied during the next scheduled log deletion process.

Log Retention Policy
<p>This section controls how many days logs will remain on the system. Any modifications will be used during the next scheduled log deletion process.</p> <p>Days to Retain Logs : 30</p>

Academic Staff Upload Settings

Academic Staff Upload Settings
<p><small>These settings control the upload of media files via the External Media tab in the EchoSystem Server and via Echo360 Personal Capture. Change these settings on a presenter's page to override the global defaults.</small></p> <p>May Upload External Media : <input checked="" type="checkbox"/> May Configure Products : <input checked="" type="checkbox"/></p>

The table below provides descriptions for the Academic Staff Upload Settings options.

These settings relate to the media import feature. See [Import Other Media for Academic Staff](#) for details on this feature. See [Upload Settings](#) for details on a related default.

Setting	Definition	Inheritance
May Upload External Media	The default value (Yes) means that Academic Staff (if defined as Instructor for the section) can upload external media.	System > Academic Staff

<p>May Configure Products</p>	<p>The default value (Yes) means that Academic Staff (if defined as Instructor for the section) can change which products are produced when uploading external media.</p>	<p>System > Academic Staff</p>
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Room Settings

Room Settings

These settings control default room-related values.

Time Zone : Video Standard :

The table below provides descriptions for the Room Settings options.

Setting	Description
Time Zone	The time zone where the parent organization is.
Video Standard	The standard used by the device in the room when it captures video. Options include NTSC and PAL , both of which are standard analog color television encoding systems.

Server Network Settings

Server Network Settings

These settings define the time servers used by EchoSystem Server to compare device time signatures in the event system time differs by more than required.

Time Server : Time Server :

Time Server : Time Server :

The table below provides a description of the Server Network Settings options.

Setting	Description
Time Server	Enter the NTP server addresses that the ESS should use to synchronize its time with the time signatures of connected devices. The EchoSystem requires at least two distinct time sources. No two Time Server fields should reference the same NTP server.

Save Changes

When you have entered your settings, click **Save**. You will be reminded that you need to restart the EchoSystem Server and Wowza for the changes to take effect. See [Start or Stop the ESS](#) and [Start or Stop Wowza](#) for detailed instructions if necessary.

Configure the Flash Media Streaming Server

In this section:

- [Overview](#)
- [Configuration Options](#)
- [Media Server Recommendations](#)
- [Adjust the Wowza Media Server](#)

Overview

The Flash media streaming server delivers streaming content to students. This content includes Echoes (on-demand content) and/or real-time live webcasts. You can use either the Wowza Media Server (Wowza) or the Adobe Media Server (Adobe).

Besides the configuration information contained on this page, you may also want to review the bandwidth requirements and example scenarios provided in [Bandwidth Requirements for Capture and Media Formats](#). While the information provided there is in the context of live webcasting, the specifications shown apply to both live webcasting and on-demand content delivery.

- **i** Live webcasting requires the Wowza Media Server. EchoSystem 5.5 requires Wowza 3.5, 3.6 or 4. Refer to the [Wowza website](#) for more information about their products.

In particular, existing users with an Internal Wowza configuration who are upgrading to 5.5 should refer to the Note in the section below for information regarding upgrading their Wowza version and configuration.

Configuration Options

The following pages provide the necessary instructions for installing and configuring the flash media server:

- [Configure an External Wowza Media Server](#)
- [Configure an External Adobe Media Server](#)

While you can install the flash media server on the same server as the ESS, for performance and scalability, we strongly recommend using a separate server. Both configurations are referred to as "external" because you will select "External Flash Server" in the [Streaming Settings](#) section of the System Settings page on the ESS. "Internal" configurations are only available for existing customers who are upgrading. See the note below.

You can use a single flash media server for both on-demand and live content, or you can use multiple flash media servers to deliver streaming content. Note the following points:

- Live webcasting must be streamed from a Wowza Media Server.
- You can have one flash media server (Wowza or Adobe) to deliver on-demand content, and another (Wowza) media server to deliver live content.
- If you use multiple flash streaming servers, one must be used for live content and one must be used for on-demand content; you cannot stream one type of content from two different servers (load-balancing).

Be sure you also obtain the proper licensing for the flash media server. For example, the use of Wowza requires a Wowza Production license, to allow for the number of concurrent connections required to stream ESS content to users. Refer to your flash media server documentation or sales representative for additional information.

As always, if you have questions or need clarification, contact [Echo360 Technical Support](#) for additional assistance.

Upgrading to 5.4 with an Internal Wowza Configuration

Existing users upgrading to EchoSystem 5.5 or any of the 5.5 Service Packs, and who are using an Internal configuration of Wowza can continue to do so; the ESS will work with the existing Wowza v3.5, and will update the necessary items on upgrade. However, if you want to upgrade to Wowza 4, you must change to an External Configuration of Wowza.

Upgrading to Wowza 4 and converting to an External Wowza media server configuration are both **strongly recommended**. The instructions linked above provide all the necessary steps for installing and configuring an external Wowza or Adobe media server.

Media Server Recommendations

Because media server load can vary dramatically from one installation to the next, it is difficult to make general recommendations. However, these are baseline requirements:

- 64-bit OS preferred
- 4 Cores (minimum)
- 8 GB RAM (minimum)
- 1 GB NIC

You are strongly encouraged to refer to the product websites for additional information and server requirements:

- Wowza: <http://www.wowza.com/faq>.
- Adobe: <http://www.adobe.com/products/adobe-media-server-standard/tech-specs.html>

Beyond these minimum requirements, consider the proportions of on-demand versus live content.

- When serving **on-demand content**, the server needs to move data from the storage disk to the streaming server to the student computer. But this data transfer does not have to happen in real time. The audio, video, and display is reassembled and synchronized when the Echo plays. This means the server should have fast data transfer ("fast disks") and a generous amount of CPU, but little RAM or network bandwidth.
- **Live webcasting** occurs in real time. It does not require a fast disk because no data is stored there during the webcast. It requires, by contrast, a fast network: the data (video, audio, display) must travel to multiple student computers and appear perfectly synchronized. It requires a high-bandwidth network with large amounts of RAM.

Consider these questions when determining media server requirements and configuration options.

- Will I use live webcasting at all, or will I use on-demand content delivery only?
- Will I use live webcasting regularly for classes or only for special events or unusual situations?
- Will live webcasts replace current on-demand content or will I be providing regular live webcasts *and* on-demand content?
- If upgrading to EchoSystem 5.5 and currently using an internal configuration, does my current ESS/media server device have sufficient power to provide live webcasting in addition to my current on-demand load? Will I be better off moving to an external media server?

These links can help you estimate system needs:

- [Deployment Planning](#). Provides system planning considerations as well as file transfer and content delivery information within the context of how network bandwidth is used.
- [Bandwidth Requirements for Capture and Media Formats](#). Provides very specific information regarding the bandwidth used for live (and on-demand) content delivery and how to calculate it accurately.
- [Wowza FAQs page](#). Useful if you are using a Wowza Media server. The *Performance and Scalability* section of this page provides performance testing information for both on-demand and live content delivery, as well as the hardware specifications for the machine on which the tests were performed.

Adjust the Wowza Media Server

If you are using a Wowza media server, you should review and, if necessary, adjust the settings applied by the initial configuration. Refer to these pages on the Wowza website:

- Wowza FAQs page: <http://www.wowza.com/faq>. See the section on performance and scalability.
- General performance tuning: <http://www.wowzamedia.com/forums/content.php?46>.
- If you are running Wowza on Linux, information on running Wowza as a named user in Linux: <http://www.wowza.com/forums/content.php?433>
- Wowza configuration tuning: <http://www.wowza.com/forums/content.php?5-general-tuning>.
- If you are using Wowza with a Java Virtual Machine (JVM) on Windows: [http://www.wowza.com/forums/showthread.php?1029-Windows-tuning-running-the-quot-server-quot-Java-VM-\(tuning\)](http://www.wowza.com/forums/showthread.php?1029-Windows-tuning-running-the-quot-server-quot-Java-VM-(tuning)).

Review the [Firewall Port settings for the Wowza Media Server](#), especially if you do live webcasts.

Wowza licensing

Please note that all licensing for your Wowza server is provided through Wowza. Echo360 no longer provides licensing for the Wowza server. Please see the following communications:

[Customer Communication re Wowza.pdf](#)

[Wowza Media Systems Comm Ltr.pdf](#)

Configure an External Wowza Media Server

In this section:

- [Overview](#)
- [Preparing for Installation](#)
- [Co-locating the Flash Content](#)
- [Installing the On-Demand Bundle](#)
- [Installing the Live Streaming Bundle](#)
- [Configuring Wowza](#)
- [Enabling iOS Live Streaming](#)
- [Configuring ESS](#)

Overview

This page provides the necessary instructions for installing and configuring a Wowza media server for use with the EchoSystem.

You can install Wowza on the same server as the ESS or on a separate server. Both configurations are referred to as "external" because you will select "External Flash Server" in the [Streaming Settings](#) section of the System Settings page on the ESS. "Internal" configurations are only available for existing customers who are upgrading; the instructions on this page do not apply to internal configurations.

For performance and scalability, we **highly recommend** using a dedicated server solely for the purpose of streaming Flash content that the EchoSystem produces.

Existing Users Upgrading to Wowza 4 Must Edit Server.xml File

If you already have an existing External Wowza configuration, but are upgrading to Wowza 4, you will need to make the following change to the `server.xml` file for Wowza 4 to work properly with EchoSystem 5.5:

- Change the **DefaultStreamPrefix** value from "mp4" to "flv"

See the [Configuring Wowza](#) section below for additional configuration instructions.

Wowza licensing

Please note that all licensing for your Wowza server is provided through Wowza. Echo360 no longer provides licensing for the Wowza server. Please see the following communications:

[Customer Communication re Wowza.pdf](#)

[Wowza Media Systems Comm Ltr.pdf](#)

Preparing for Installation

EchoSystem 5.5 requires the use of Wowza v3.5, v3.6 or v4. Be sure the server you will be using meets Wowza's specifications. Refer to the [Wowza FAQs page](#) for details and installation recommendations.

1. Wowza is a Java application, and requires Java Runtime Environment (JRE) version 6 or 7. Installers for your platform are available from [Oracle](#).
2. Download the Wowza Media Server installation bits for your platform from the [Wowza installer page](#).
3. Make a note of your Wowza license key, which will be required during installation.
4. Proceed with the installation of Wowza on the server.

Configure Wowza To Run As ESS User

For Linux users: After installation, be sure to configure Wowza to run as a named user. This user should be same user (or in the same group) as the ESS user (the user that ESS is configured to run as). For more information, refer to the Wowza forums for Linux at the following URL: <http://www.wowza.com/forums/content.php?433>.

For Windows users: The Wowza service should be run as the same domain user as the ESS server.

The next section provides instructions on configuring the content storage location that Wowza will use. The flash content does NOT need not be in the same location as the program files.

Co-locating the Flash Content

The ESS System Settings allow you to identify the specific location where the ESS is to deposit the Flash content it generates. This location can be either a local volume or a UNC-addressable path. The location is represented as the "Flash Folder" field in the [Streaming Settings](#) section of the [System Settings configuration](#).

In order for the Wowza server to find and stream the Flash content delivered by the ESS, that content must be stored on a volume that the Wowza application has read *and* write access to. This can be a local drive (that the ESS writes to via a network share), a mounted SMB/CIFS file share, or mounted NAS/SAN storage.

Consult your operating system's documentation for configuring file shares, or contact [Echo360 Technical Support](#) for guidance.

Installing the On-Demand Bundle

For on-demand Echoes and Apreso content, Echo360 has created an archive that contains the proper directory structure needed inside the Wowza application directory, along with the required files for configuration. For reference, the directory structure required is shown in the [Configuring Wowza](#) section below.

These steps are only necessary if you are configuring an external Wowza server for the first time.


1. Download the latest Wowza On-Demand Bundle available from the [Customer Support Portal](#).
2. Extract the contents of the downloaded zip file to your Wowza Media Server installation root. This will create the necessary folder structure, and will deposit **Application.xml** configuration files into each subfolder of the **/conf** directory.

Installing the Live Streaming Bundle

For live content and the chat and presence features, Echo360 has created a script that automatically installs the proper directory structure needed inside the Wowza application directory, and adds the required files for configuration as well as additional required Java libraries.

The following steps are required if you are configuring an external Wowza server for the first time, OR if you have an existing external Wowza server that you want to configure for live streaming.

1. Download the latest Wowza Live Streaming Bundle available from the [Customer Support Portal](#).
2. Extract the contents of the downloaded zip file to a temporary location on your Wowza server.
3. Open the included **README.html** document and follow the instructions appropriate for your platform.

 If you are using Live, be advised that features such as live chat require the [Collaboration and Statistics](#) service (also called HEMS). For other live requirements see [Specifications for Live Webcasting](#).

Configuring Wowza

Wowza Media Server relies on virtual servers, called applications, to serve the correct content based on the document root given in URL requests. These applications are configured by creating directory structures and XML documents at specific locations within the Wowza instance's installation folder.

Both live and on-demand streaming, along with their supporting components, are configured as separate Wowza applications with distinct parameters. There are four applications in total:

- One for on-demand Echo streaming,
- One for live Echo streaming,
- One for the chat and presence functions of live Echoes,

- One for legacy Apreso content.

Installing the On-Demand and Live Streaming bundles, covered in the above sections, creates the necessary application folders and provides the Application.xml files and Java libraries needed for Wowza to deliver ESS streaming content.

Once those steps are completed, use the below information to verify the proper folder structure and customize the Application.xml files for your system.

1. Starting at the installation root for the Wowza server instance, verify that the necessary components of the directory tree (in addition to the program files) appear. By default, the installation root for Wowza is:
 - Unix: /usr/local/WowzaMediaServer/
 - Windows: C:\Program Files\Wowza Media Server\
2. Within the installation root, the directory structure should appear as follows, noting that if you did not install the Live bundle, you will not see the /echolive/ or /echotextchat/ folders:

```
WowzaMediaServer
--- applications
  --- apreso
  --- echo
    --- keys
      --- _definst_
    --- sharedobjects
      --- _definst_
  --- echolive
    --- sharedobjects
      --- _definst_
  --- echotextchat
--- conf
  --- apreso
  --- echo
  --- echolive
  --- echotextchat
```

3. Next, you will need to edit one line in each of the installed *Application.xml* files (each *conf/{application name}* folder contains one) to define the location where Wowza should look for your Flash content.
4. The */echo/*, */echolive/*, and */apreso/* **Application.xml** files all contain a parameter named `StorageDir` in the first Streams stanza near the top of the file:

```
<StorageDir>C:\Echo360\FlashStreaming</StorageDir>
```

The default value of this parameter will not be valid for most deployments.

5. In each file, replace the path between the `StorageDir` tags with the location that corresponds (or will correspond) to the Flash Folder defined on your ESS System Settings page. As defined above this is the location where the ESS will deposit the Flash content it generates, and can be either a local volume or a UNC-addressable path.
6. The */echotextchat/* *Application.xml* file is different. Near the bottom of the file, this document contains a set of property values encoded as follows:

```

<Properties>
  <Property>
    <Name>objectstoragedirectory</Name>
    <Value>
      ${com.wowza.wms.context.VHostConfigHome}/echotextchat/rso
    </Value>
  </Property>
  <Property>
    <Name>chatlogstoragedirectory</Name>
    <Value>
      ${com.wowza.wms.context.VHostConfigHome}/echotextchat/chatlogs
    </Value>
  </Property>
  <Property>
    <Name>echosystemdirectory</Name>
    <Value>
      ${com.wowza.wms.context.VHostConfigHome}/
    </Value>
  </Property>
</Properties>

```

7. Replace the **`${com.wowza.wms.context.VHostConfigHome}`** string with the value entered for `StorageDir` in the other three *Application.xml* files BUT leave the appended paths (where this string precedes the path values) in place.

Changing this last property value identifies the `echosystemdirectory` as the storage or Flash Folder directory. This tells Wowza to write its chat and presence logs to a location accessible to the ESS, in a subfolder called "content" beneath the Flash storage root.

Finally, **if you are using Wowza v4**, make the following change to the `server.xml` file located in the `/conf/` folder of the Wowza installation root:

- Change the `DefaultStreamPrefix` value from "mp4" to "flv"

Further edits to the `server.xml` file are described below, as they relate to enabling iOS Live Streaming.

Enabling iOS Live Streaming

Before proceeding, ensure that you have followed the steps above and modified the *Application.xml* file for each of the four applications (echo, echolive, echotextchat and apreso).

As of EchoSystem 5.2, iOS streaming is supported for live presentations. However for this to work as expected, you must edit the *Server.xml* file located in the `/conf/` folder of the Wowza installation root as follows.

1. Open the **Server.xml** file for editing, and do the following:
 - a. Insert the following entry in the `<ServerListeners>` section of the `Server.xml` file:

```

<ServerListener>
  <BaseClass>com.echo360.streaming.live.MediaCaster</BaseClass>
</ServerListener>

```

- b. Insert the following entries at the bottom of the Server.xml file, placing them after the final <Properties> tag and before the final </Properties> tag (creating properties within the last Properties tag):

```

<Property>
  <!-- the directory that contains the streams.txt file -->
  <Name>StreamMonitorDir</Name>
  <Value> ${com.wowza.wms.context.VHostConfigHome}/monitor</Value>
</Property>

<Property>
  <!-- the wowza application that the streams will be activated
on. Default is echolive -->
  <Name>EchoLiveApplication</Name>
  <Value>echolive</Value>
</Property>

<Property>
  <!-- time the thread waits between checks of the streams.txt
file. Default is 5 seconds -->
  <Name>WaitInterval</Name>
  <Value>5000</Value>
</Property>

```

2. Replace the `${com.wowza.wms.context.VHostConfigHome}` string with the value you used for the `StorageDir` in the `Application.xml` files.

For your reference, a file named `example-Server.xml` is included with the Live Bundle files, that shows this change made to the file. This file contains a basic Wowza server configuration along with all of the necessary changes for iOS live streaming. It is not automatically installed as a part of the bundle (otherwise it would have overwritten your existing `Server.xml` file).

Once all the configuration files have been edited and saved according to these instructions, restart your Wowza service.

Configuring ESS

There are five especially important fields in the Streaming Settings section of your ESS System Settings that you will need to validate before the ESS can provision your configured Wowza server to stream content. The information shown below is also contained in the [Streaming Settings](#) section of the [System Settings configuration](#) page.

1. Log in to the ESS and navigate to the **Configuration > System Settings**.
2. Click the **Edit** button.
3. Scroll down to the **Streaming Settings** section of the page.

4. For the **Flash Streaming** parameter, select **External Flash Server**.
5. For the External Flash URL parameter, compose a URL consisting of the RTMP protocol, the fully-qualified domain name (FQDN) of the Wowza server, the on-demand application name (echo), and a **_definst_** pointer. The URL should look similar to the following:
rtmp://fqdn.of.wowza.server/echo/_definst_
6. For the **Live Flash URL** parameter, compose a similar URL consisting of all the same elements, but using the live application name (echolive), as follows:
rtmp://fqdn.of.wowza.server/echolive/_definst_
7. The **Flash Folder** parameter should already reflect the location where you have chosen to store your Flash content.
8. The **Live Streaming Server Host** parameter should represent the FQDN (without schema or path components) of your Flash server.
9. Once all these parameters are validated, click **Save**.

The ESS is now configured to direct your viewers' browsers to call the external Wowza streaming server when playing live and on-demand Echo content.

Configure an External Adobe Media Server

In this section:

- [Overview](#)
- [Preparing for Installation](#)
- [Co-locating the Flash Content](#)
- [Configuring the Streaming Application](#)
- [Configuring the ESS](#)

Overview

The Flash media streaming server delivers streaming content to students. This content includes Echoes (on-demand content) and/or real-time live webcasts. You can use either the Wowza Media Server (Wowza) or the Adobe Flash Media Streaming Server (Adobe FMS).

This page provides the necessary instructions for installing and configuring an External Adobe FMS for use with EchoSystem (5.1 and above).

Preparing for Installation

The first step is to determine whether Adobe FMS will be installed on the same machine as the ESS, as this will determine if there is a need to co-locate your Flash content (i.e. - to place it in a file system remote to the ESS via a network share so that the media server can access it locally).

If everything - the ESS, Adobe, and the flash content - will exist on the same physical device, OR the flash content is to be located or with the content located on a mounted SAN volume, then you can skip the following section. Simply make a note of the Flash Folder location, which will be configured in the [Streaming Settings](#) section of the ESS System Settings. See [Configuring the ESS](#) below as well as the [Configure System Settings](#) page.

Co-locating the Flash Content

In order for the Flash server to find and stream Flash content, that content needs to be stored in a drive letter-addressable location (i.e. - logically local). This location can be physically attached to the Adobe host or on the network as a SAN volume. The ESS must transfer the Flash content over the network to the location chosen for the

content storage, meaning this location must be accessible via a network share.

When using a common SAN volume for all content, you can skip this section, and make sure that the Flash Folder parameter entered in the [Streaming Settings](#) section of the ESS System Settings page matches the location where you want the Flash server to be looking for its content files.

Echo360 recommends NOT storing the content on a location that is logically remote to the Flash server, such as a NAS or UNC-addressable location, since this will generate unnecessary network traffic that could be detrimental to the performance of the streaming server.

The following instructions assume that Adobe FMS is installed on a Windows server; if using a Linux distribution, please refer to the instructions specific to your network file sharing solution (e.g. - Samba) to set up a network share.

1. Using Windows Explorer on the Adobe FMS machine, navigate to the folder where the root of the Flash content will be stored (e.g. - D:\echo\flash).
2. Right-click the folder, and select **Properties**.
3. On the Sharing tab of the Properties dialog box, click the radio button labeled **Share this folder**.
 - Enter a unique, recognizable share name. This will be the path element that is later referred to in the UNC path that defines the share.
 - Leave the user limit set to **Maximum allowed**.
4. Click **Permissions** and navigate to the **Share Permissions** tab in order to set the permissions for access to the folder at the share level.
5. Click **Add...**
6. If the server is located on an Active Directory-managed domain, add the name of the computer account for the machine that is running the ESS. Otherwise, it will be necessary to configure the ESS to run as a separate, privileged user in its Windows service settings, under the "Log On" tab of its properties dialog, and to add that same user account on this machine.
7. Click **Check Names** to verify the group and/or accounts that have been entered into the list. This may require authentication.
8. When satisfied that the account information entered is correct, click **OK**.
9. Select the account name specified in step 6 from the **Group or user names** list.
10. Check the box under the **Allow** column for each of the permissions that should be granted to the selected account. Echo360 *strongly recommends* that you allow **Full Control** to the user and/or computer accounts representing the ESS; otherwise, the ESS may not be able to place content here.
11. Click **OK** to commit the changes.
12. Select the **Security** tab to set the permissions for access to the folder at the file system level.
13. Repeat steps 5 through 10, using the same group and/or accounts that were used for the share-level permissions.
14. Click **Apply** and **OK** to commit the changes and close the Properties.

Optionally, but as a recommended verification, do the following:

1. Log into the machine running the ESS as the user account running ESS, if one was specified in Step 6 above.
2. Attempt to connect to the share you created above using its UNC path.
3. Once connected, confirm that it is possible to view, create, delete, and rename files.

Configuring the Streaming Application

Adobe Media Server relies on virtual servers, called "applications," to serve the right kind of content based on the document root given in URL requests. Adobe is installed with a set of default applications that reside in its Program Files folder. In order for Adobe to work with content from the EchoSystem, it is necessary to create a new application based on the default Video-on-Demand (called "vod") application. This application will be referred to as "echo."

1. Using Windows Explorer, navigate to the folder where the program files for Adobe FMS are installed.
2. Open the **applications** folder.
3. Create a copy of the **vod** contained there, and rename it to **echo**. There should now be both a **vod** and an **echo** folder within the **applications** folder.
4. Open the **echo** folder.
5. Open the **Application.xml** file in Wordpad for editing.
6. Line 5 contains a **<Streams>** directive that is currently set to: `!;${VOD_DIR}`.
7. Change this entry to read: `!;${ECHO_DIR}`.
8. **Save** and **close** the file.
9. Return to the **conf** subfolder under the Adobe FMS program files root. It should reside at the same level as the **applications** folder.
10. Open the **fms.ini** file in Wordpad for editing.
11. Find the location in the file where the variable **VOD_DIR** is defined.
12. **Add** a new line, defining a new variable, **ECHO_DIR**, to reflect the path configured as the share in the [Co-Locating the Flash Content](#) section above. Use the same format as the **VOD_DIR** variable. The **fms.ini** file should now contain definitions for both the **VOD_DIR** and **ECHO_DIR** variables.
13. When finished, **save** and **close** the file.
14. Start or restart the Adobe FMS service to commit the configuration changes.

Adobe FMS is now configured to serve content from the location set up for holding Flash content.

At this point, the Adobe FMS service should be configured to launch on startup by default.

Configuring the ESS

All of the infrastructure should now be in place for the external FMS. The final step involves configuring three entries in the ESS system configuration to recognize these changes. The information below is also available in the [Configure System Settings](#) page.

1. Log in to the ESS and navigate to **Configuration > System Settings**.
2. Click **Edit** (located at the bottom of the page).
3. Scroll down to the **Streaming Settings** section.
4. For the **Flash Streaming** parameter, select **External Flash Server**. Do this even if the FMS is located on the same host as the ESS.
5. For the **External Flash URL** parameter, compose a URL consisting of the RTMP protocol, the FQDN of the Adobe server, the application name (echo), and a `_definst_` pointer, as follows: `rtmp://fqdn.of.fms.server/echo/_definst_`

The "echo" in the URL is an application not a folder

The path elements of this URL do not map to path elements on the storage volume; here, "echo" is the name of an application and *not* the name of the folder in which the content is stored, and "`_definst_`" is a virtual pointer. If the URL contains more elements than the example shown here, or the **ECHO_DIR** folder contains additional subfolders above the content, FMS will not be able to locate the content.

6. For the **Flash Folder** parameter, enter the UNC path (or the drive letter path, if using a SAN volume) of the Flash content folder, which was configured in the [Co-Locating the Flash Content](#) section above. This should point to the same location defined as the variable "ECHO_DIR" in the application configuration.
7. When finished, click **Save**.

The ESS is now configured to call the external Adobe FMS when providing content to viewers. If prompted, restart the ESS in order for the changes to take effect, checking first that no capture or processing tasks are currently

running.

Updating an External Wowza Media Server

In this section:

- [Overview](#)
- [Replacing the Echo360 Libraries](#)
- [Enabling iOS Live Streaming Functionality](#)
- [Enabling Closed Captioning for Live Streams](#)
- [Required Modification for Wowza 4.0](#)

Overview

These instructions only apply if you are using a Wowza Media Server in an 'external' configuration (not installed or configured by the ESS). The following scenarios are covered in this document:

- You are upgrading from a prior EchoSystem release to version 5.5 **and** already have an external Wowza Media Server instance configured for on-demand and live Echo content.
- You are upgrading an external Wowza 3.x installation to version 4.0.

Use the instructions below to properly upgrade and configure your external Wowza Media Server instance for full functionality with version 5.5 of the EchoSystem.

Please ensure that the Wowza service is shut down before proceeding with these steps.

Wowza licensing

Please note that all licensing for your Wowza server is provided through Wowza. Echo360 no longer provides licensing for the Wowza server. Please see the following communications:

[Customer Communication re Wowza.pdf](#)

[Wowza Media Systems Comm Ltr.pdf](#)

Replacing the Echo360 Libraries

The first step in the upgrade process is to ensure that the latest Echo360 library files are installed. These files contain the code required for features such as collaboration, iOS live streaming and closed captioning.

1. Navigate to the `/lib/` directory under your Wowza installation root and move **all** existing Echo360-specific JAR files to a safe location outside this directory. The files present will depend on the version you're currently using:

Version 5.1 JAR Files

```
echo360-live-app-monitor-5.1.0.jar
echo360-text-chat-5.1.0.jar
```

Version 5.2 JAR Files

```
echo360-live-app-monitor-5.2.0.jar
echo360-text-chat-5.2.0.jar
echo360-mediacaster-5.2.0.jar
```

2. Download the latest External Wowza bundle, available from the [Customer Support Portal](#).
3. Extract the contents of the downloaded ZIP file to a temporary location.
4. Copy the contents of the extracted `/lib/` directory to the `/lib/` directory under your Wowza installation root. The Wowza installation `/lib/` directory should now contain the following files:

```
echo360-live-app-monitor-5.4.1.jar
echo360-text-chat-5.4.1.jar
echo360-mediacaster-5.4.1.jar
echo360-captioning-5.4.1.jar
```

5. Ensure that the ownership and permissions of these files match the rest of the files in the directory.

Enabling iOS Live Streaming Functionality

The next steps cover required modifications to enable Echo live streaming to iOS devices.

1. In the `/conf/` folder under your Wowza installation root, open the **Server.xml** in a text editor and make the following changes:

NOTE: If you have previously upgraded your Wowza installation to enable live streaming, then these attributes may already be present in the **Server.xml** file. We strongly recommend verifying these changes are still present to ensure proper functionality, as in some cases the **Server.xml** file can be overwritten when upgrading a Wowza instance. If these changes are not present, please add them to the file as directed.

2. Insert the following text between the `<ServerListeners>` and `</ServerListeners>` tags:

```
<ServerListener>
  <BaseClass>com.echo360.streaming.live.MediaCaster</BaseClass>
</ServerListener>
```

3. Insert the following text after the final `<Properties>` tag and before the `</Properties>` tag:


```

<Property>
  <!-- the directory that contains the streams.txt file -->
  <Name>StreamMonitorDir</Name>
  <Value> ${com.wowza.wms.context.VHostConfigHome}/monitor</Value>
</Property>

<Property>
  <!-- the wowza application that the streams will be activated on.
  Default is echolive -->
  <Name>EchoLiveApplication</Name>
  <Value>echolive</Value>
</Property>

<Property>
  <!-- time the thread waits between checks of the streams.txt file.
  Default is 5 seconds -->
  <Name>WaitInterval</Name>
  <Value>5000</Value>
</Property>

```

4. Replace the **`${com.wowza.wms.context.VHostConfigHome}`** string with the location of your Echo Flash folder. If you are not certain what this location is, refer to the `StorageDir` attribute in *Application.xml* file located under `/conf/echolive` in your Wowza installation root.

Enabling Closed Captioning for Live Streams

To enable Live Closed Captioning functionality, the following changes need to be made:

1. Copy the entire *echocaption* directory from the `/conf/` subfolder in extracted bundle location (from the *Replacing the Echo360 Libraries* section above) to the `/conf/` directory under your Wowza installation root.
2. Navigate to the `/applications/` subdirectory of your Wowza installation root and create a new empty folder labeled *echocaption*
3. In the newly copied `/conf/echocaption` directory of your Wowza installation root, open the **Application.xml** file in a text editor.
4. Near the bottom of the file, the document contains a set of property values encoded like so:

```

<Properties>
  <Property>
    <Name>objectstoragedirectory</Name>

    <Value>${com.wowza.wms.context.VHostConfigHome}/content/echocaption/rso</
Value>
  </Property>
  <Property>
    <Name>captionlogstoragedirectory</Name>

    <Value>${com.wowza.wms.context.VHostConfigHome}/content/echocaption/capti
onlogs</Value>
  </Property>
  <Property>
    <Name>echosystemdirectory</Name>
    <Value>${com.wowza.wms.context.VHostConfigHome}</Value>
  </Property>
</Properties>

```

5. Replace the **`${com.wowza.wms.context.VHostConfigHome}`** string with the location of your Echo Flash directory. If you are not certain what this location is, refer to the `StorageDir` attribute in *Application.xml* file located under `/conf/echolive` in your Wowza installation root.
6. Next, edit the **layout.xml** in the template directory of the EchoSystem Server

The default location on windows for this is:

C:\echo360\content\templates\1f80f82f-91ba-408a-9a23-c74d701fe3f1\echo_files\layout.xml Edit the file and update the `<enable-live-caption>` field to **true**. If you are using the built-in wowza server, simply uncomment the `<enable-live-caption>` option.

Required Modification for Wowza 4.0

The following change is required for Wowza 4.0 to function properly with the EchoSystem Server. Failure to make this change will result in all on-demand and live streaming features ceasing to function.

1. Under the `/conf` folder in your Wowza installation root, edit the **Server.xml** file. Find the following line:

```
<DefaultStreamPrefix>mp4</DefaultStreamPrefix>
```

2. Modify the value to change `mp4` to `flv`, like so:

```
<DefaultStreamPrefix>flv</DefaultStreamPrefix>
```

Once all the configuration files have been edited and saved according to these instructions, restart the Wowza service.

Advanced Configuration Options

In this section:

- [Overview](#)

Overview

The modular nature of EchoSystem allows for a great deal of flexibility with respect to system deployment, including some native services that can be installed and configured to run externally from the EchoSystem Server (ESS) application and computer. The following pages provide information and instructions for the advanced configuration options available for a more customized system setup:

- [Using External FTP for ESS File Transfers](#)
- [Using UNC Paths for Windows Media Processor Data Transfer](#)
- [Using an External Web Server for Content Playback](#)
- [Offloading Media File Downloads to an External Web Server](#)

Refer also to the [Deployment Planning](#) pages for information on the configuring the modular aspects of EchoSystem.

Using External FTP for ESS File Transfers

In this section:

- [Overview](#)
- [Configure the FTP Server](#)
- [A Word on Firewalls](#)
- [Configure the ESS](#)

Overview

In a default EchoSystem installation, devices exchange capture data with the EchoSystem Server (ESS) via an internal secure file transfer protocol (SFTP) server that listens on port 8022. While the standard method may be comfortable for most circumstances, SFTP carries a substantial amount of compression and encryption overhead that can cause transfer bottlenecks on large-scale installations.

The ESS provides the option to use an external FTP server for handling these file transfers rather than its internal SFTP facility. This has two advantages:

- The transfer speeds available are much higher
- A dedicated service can be used for back-end content transfers, consolidating back-end file transfer resources away from the ESS

✔ SFTP Without Data Encryption

It is possible to use the internal SFTP server without data encryption to achieve substantially faster transfer speeds from capture devices. This is handled by the FTP protocol option. See [Configure the ESS](#).

Configure the FTP Server

Although any FTP server can be used, this article will describe the procedure for setting up the FTP server built in to the Internet Information Services (IIS) suite for Windows Server 2003, which is recommended for use alongside the ESS especially in situations where simple transfer speed is desired.

1. If the IIS FTP server is not installed, from the Windows, Control Panel, select **Add or Remove Programs > Windows Components Wizard**. You may need a Windows installation CD if these components are not available. At a minimum, check the following tree of components:
 - Application Server
 - Internet Information Services (IIS)
 - File Transfer Protocol (FTP) Service; Internet Information Services Manager
2. In the Windows Control Panel, select **Administrative Tools > Internet Information Services (IIS) Manager**. Using the navigation pane on the left, expand the **local computer** entry and **FTP Sites** folder to expose the list of sites. You may use the default FTP site, or create a new one from scratch.
3. Right-click your FTP site and click **Properties**. The following tabs contain configuration options of interest:
 - **FTP Site:** This contains basic connection parameters for the FTP server.
If your server has multiple network interfaces, you can use the "IP address" field to specify which one the FTP will listen on, allowing you to segregate internal and external network traffic.
As a security measure, you may wish to force the FTP server to use a non-default TCP port as well, or limit the number of concurrent connections.
 - **Security Accounts:** Anonymous access is enabled or disabled here. By default, it is enabled; we strongly recommend against this. Clear the option, read the warning that Windows produces, and select **Yes** to continue. We will set up security in the next step.
 - **Home Directory:** Best practice standards recommend that the path given here should be part of the ESS content upload file system hierarchy. An ideal selection would be something like D:\echo360\upload\ext (as opposed to "int," which is the default). If the FTP server is remote to the ESS, you can also specify a shared location on the ESS server where you would like the FTP server to look for its files. In either case, be sure to enable both read and write permissions.
 - **Directory Security:** At a Network Administrator's discretion, you can restrict access to this FTP service to specific IP address ranges. Be sure, however, that you do not inadvertently lock out actual devices on your EchoSystem network from reaching the service to upload their content.
4. In the Windows Control Panel, select **Administrative Tools > Computer Management**. Using the navigation pane on the left, select **System Tools\Local Users** and **Groups\Users** to see a list of all users on the local system.
 - You will need to either create or repurpose a user that will control access to the FTP service from your appliances. Make a note of the user name and password that you choose.
 - In the user properties, be sure that "User must change password at next logon" is *not* enabled, and enable *at least* "Password never expires."
5. In Windows Explorer, navigate to the folder that you specified for the home directory of the FTP server in step 3 (e.g., D:\echo360\upload\ext).
 - Right click on the folder itself and click **Properties**.
 - Click the **Security** tab.
 - Click **Add** under the name list.
 - Enter the name of the user you selected in Step 4, and click **OK**.
 - In the "Group or user names" list, click the user you just added.

- In the permissions list, give *Allow* permissions for *at least* the Modify action. We recommend giving full control.
 - Click the **Advanced** button.
 - Under the **Permissions** tab, enable both check-boxes for inheriting and replacing permissions to all child objects.
 - Click **OK** to both dialog boxes to save your changes and close.
6. As an optional test of the new configuration, open a command prompt window.
- Execute the following command: `ftp localhost` (or the IP address you configured).
 - When prompted, enter the user name and password for the account you selected in step 4.
 - Execute the following commands: `ls`, `mkdir test`, and `rmdir test`.
 - If all of the above succeeded, you have confirmed that the FTP server is online and that the user account you selected has all the necessary permissions.

A Word on Firewalls

In testing, we have found that when using IIS as an FTP server, a firewall may not always automatically open the ports necessary for successful active-mode FTP connections; even when manually configuring exceptions for the FTP control and data ports (21 and 20, respectively), FTP in active mode uses other random ports for its data connections. However, if you must use a firewall, adding an application-based exception (the software must be able to support this; Windows Firewall does, for instance) rather than opening port ranges is the most effective method of allowing access. If you are using IIS, the application to clear with the firewall is called *inetinfo.exe* for Windows Internet Information Services. It may also be necessary under such circumstances to set a long session timeout value to prevent the control port from being closed during long file transfers.

Best Practice: Locate the FTP Server Inside the Secure Portion of the Network


If the FTP server is inside the secure portion of your network, no firewall is needed on the connections between client devices and the FTP server. This avoids connectivity and speed issues when moving essential files within your EchoSystem installation.

Configure the ESS

Make Sure the Processing Queue is Empty

Do not make changes to these settings if you have any tasks in your processing queue. Ignoring this warning could cause captures to be lost!

1. In the ESS administration interface, select **System > System Settings**.
2. Click the **Edit** button at the bottom of the page.
3. Under the **Intake Settings** heading, update the following configuration items:
 - FTP Server: External
 - FTP Protocol: FTP
 - FTP User Name: As configured on the FTP server. See [Configure the FTP Server](#).
 - FTP Password: As configured on the FTP server. See [Configure the FTP Server](#).
 - FTP Folder: The FTP home folder, as configured on the FTP server. See [Configure the FTP Server](#).
 - FTP Host: The FQDN of the FTP server for the address on which it is listening.
 - FTP Port: The TCP port, as configured on the FTP server. See [Configure the FTP Server](#).
 - FTP Path: *empty* (unless you are using one common FTP server with multiple subdirectories for multiple applications)
 - Default Processor Path to FTP Folder: *empty* (unless you have followed the procedure in the article "Using UNC Paths for Processor Data Transfer")
4. Click the **Save** button at the bottom of the page.

 This restarts all of your capture appliances.

5. As an optional test of the new configuration, click the green **Test Settings** button, which is under the Intake Settings heading. You should see a success message.

Using UNC Paths for Windows Media Processor Data Transfer

In this section:

- [Overview](#)
- [Define the Intake Directory](#)
- [Set Up the Intake Directory Share](#)

Overview

In a default EchoSystem installation, devices exchange capture data with the EchoSystem Server (ESS) via an internal secure file transfer protocol (SFTP) server that listens on port 8022. While the standard method may be comfortable for most circumstances, SFTP carries a substantial amount of compression and encryption overhead that can cause transfer bottlenecks on large-scale installations.

Many institutions prefer to implement a centralized, network-based storage solution that relies on universal naming convention (UNC) paths, thereby eliminating unnecessary file transfer operations. The EchoSystem Media Processor devices on your network can be configured to access these UNC shares, thereby accessing capture content directly. The result is a dramatic speedup of processing tasks.

Do Not Refer to Mapped Drives

It is important that you never use mapped drives when configuring storage locations for use with ESS. If configured incorrectly, these are not persistent across restarts, and the local system account running the EchoSystem NT services may not have access to the mapped drives in the first place. If you are using a SAN with system mounted volumes, the use of such a drive letter is acceptable; otherwise, you are likely to run into errors if you use this feature of Windows. When in doubt, always use a UNC path for networked storage.

Define the Intake Directory

The intake folder, specified in your ESS system settings as the *FTP Directory*, is where capture content is temporarily stored before being copied to, or in the case of network shares, read by the media processor devices on your network. Regardless of where the directory is located, this folder is the one that you will configure your media processor devices to access via a network share. Your ESS will receive and store capture content from your capture appliances and Classroom Capture devices at this location.

Before continuing, define the FTP Directory field under the Intake Settings heading in your ESS System Settings, then save your changes. For now, it is important that the field labeled "Default Processor Path to FTP Directory" should be left *blank*.

Set Up the Intake Directory Share

These instructions assume that all the media processor devices you want to configure are Windows systems assigned to an Active Directory controlled domain. Since the EchoSystem media processor runs as an NT service, we will use computer accounts for authentication to the network share and for read-write permissions to the shared folder itself.

Before continuing, you may find the share permissions easier to manage if all of the computer accounts for your media processor devices are added to a group, especially if you have several of them. If you only have one or two media processors, do not intend to increase your number of media processors, and/or would like to manage the permissions for each of them directly, skip the following subsection.

Adding Computers to a Security Group

Begin by logging on to your domain controller and accessing the Active Directory Users and Computers console.

1. In the Active Directory Users and Computers console, expand your domain from the list on the left.
2. Right-click **Groups**, then move your mouse to **Add** and click **Group**.
3. Add the information for this group. Remember that this is the group to which your all of your Media Processor devices should belong. You can call the group anything you like, but it should bear a name that is easy to recognize. Your network administrator probably has a naming scheme to follow. Review the information and click **Finish** when you are satisfied.
4. Select **Computers** from the console list under your domain. This will show an index of all the computer accounts on your domain in the right-hand pane.
5. Right-click the computer account for one of your media processor devices and select **Properties**.
6. Click the **Member Of** tab, and then click **Add**.
7. In the Select Groups dialog box, specify the group that you just created. Click **OK** to add the specified group to the list. Your media processor devices may be members of more than one group.
8. Select **OK** to finish.
9. Repeat steps 5 through 8 for all of the media processor devices on your domain.

Sharing and Security

Creating the share itself is usually a simple process but there are two places where your security settings need to be established: at the share level and at the file system level. You will need to log on to the system in which the folder you want to share physically resides (typically the machine running ESS itself) to make these changes.

1. Using Windows Explorer, navigate to the folder you defined as the FTP Directory in ESS earlier on.
2. Right-click the folder, and select **Properties**
3. Under the "Sharing" tab, click the radio button labeled "Share this folder." Give it a unique, recognizable share name. This will be the path element to which you will refer later on in the UNC path that defines the share (e.g., if you specify "int," it will be something like \\host\int). Leave the user limit set to "Maximum allowed."
4. Click the **Permissions** button. You will see the Share Permissions tab. Here we will set the permissions for access to the folder *at the share level*.
5. Click **Add**.
6. Enter the canonical name of the group you created for your media processor devices in the previous subsection. If you are not using groups for permissions management, search for or enter the names of the computer accounts of each Media Processor device.
7. You may click **Check Names** to verify the group and/or accounts that you have entered into the list. This may require you to authenticate. When you are satisfied that the information is correct, click **OK**.
8. Select the group or one of the user names you specified in step 6 from the "Group or user names:" list.
9. Check the box under the *Allow* column for each of the permissions you want to give to the selected account. We strongly recommend that you allow *Full Control* to the group and/or computer accounts representing your Media Processor devices.
10. Click **OK** to commit the changes.
11. Select the **Security** tab. Here we will set the permissions for access to the folder *at the file system level*.
12. Repeat steps 5 through 9, using the same group and/or accounts that you did for the share-level permissions.
13. Click **Apply** and **OK** to commit the changes.
14. Optionally, but as a recommended step, log in to one of the Media Processor devices and attempt to connect to the share you just created using its UNC path. You should be able to view, create, delete, and rename

files.

Define the Default Media Processor Path to FTP Directory

Specify where the share is.

1. Open the ESS System Settings page.
2. Under the Intake Settings heading, specify the full UNC path to the network share you configured in the previous section.
3. Click **Save**.
4. Click the green **Test Config** button to determine whether the settings are successful.
5. Restart the ESS service using the Services console in your Administrative Tools.

Congratulations. If all of the above succeeded, your Media Processor devices will access their files directly from the network share, reducing transfer overhead to a minimum and greatly speeding up the turnaround time for your Echoes.

Using an External Web Server for Content Playback

In this section:

- [Overview](#)
- [Define and Share the Active Content Directory](#)
- [On Ports and Protocols](#)
- [Configuring an IIS Web Server](#)
- [Configuring an Apache Web Server](#)
- [Configuring an NGINX Web Server](#)
- [Enabling an External Web Server on the ESS](#)

Overview

The EchoSystemServer software comes bundled with a java-based web server called Jetty. Jetty is responsible for serving up all web UI elements and product downloads, processing API calls, and providing EchoPlayer elements for Rich Media presentation playback. Jetty is enabled by default, and is capable of efficiently handling requests on small or low-load deployments. However, if you have a large number of users accessing the system simultaneously, we highly recommend offloading all playback requests to an external web server. Jetty will still be running on the application host for API requests and the web UI, but configuring the playback components to be offered by an external server can greatly reduce the overall load on the system and result in improved performance.

The following web server technology is supported for this use:

- Microsoft IIS 6
- Microsoft IIS 7
- Apache

The EchoSystemServer will also work with NGINX, and while this document covers the base configuration of this product, it is not officially supported at this time. The following instructions cover how to configure these software packages for use with ESS content playback.

Define and Share the Active Content Directory

The **Active Content Directory** is defined as the location of all available Echo content that can be viewed by users. This setting is specified in the EchoSystem Server under **System > System Settings > Active Echo Settings > Content Folder**. The content can be located on a drive local to the ESS, on a mounted SMB/CIFS file share, or on mounted NAS/SAN storage. Regardless of where this directory is *physically* located, this folder **must** be accessible by both your external web server and the ESS host.

Additionally, in order for the external web server to find and serve up Echo content delivered by the ESS, your active content directory network share must be one that the external web server has read *and* write access to.

Consult your operating system's documentation for configuring file shares, or contact [Echo360 Technical Support](#) for guidance.

Do Not Refer to Mapped Drives

It is important that you never use mapped drives when configuring storage locations. If configured incorrectly, these are not persistent across restarts, and the local system account may not have access to the mapped drives in the first place. If you are using a SAN with system mounted volumes, the use of such a drive letter is acceptable; otherwise, you are likely to run into errors if you use this feature of Windows. When in doubt, always use a UNC path for networked storage.

On Ports and Protocols

When setting up an external web server, you can configure either HTTP or HTTPS access. The port used is your choice, though we recommend sticking to standard ports (80, 443, 8080, 8443 etc.). The EchoSystem Server is typically configured to offer up content over HTTP on port 8080 or HTTPS on port 8443. The application itself always runs over HTTPS. Reference the documentation for your external web server for configuring ports and protocols.

While not recommended, it is possible to configure an external web server to run on the same physical host as the ESS. If this is done, it's important to note that the external web server **cannot** run on the same protocol and port as the application. In other words, if the ESS application is configured to run on HTTP/8443, then the external web server cannot use port 8443. A different port, such as 443, must be used in this case.

Best Practice: Serve Content Over HTTPS

For security reasons, recent versions of major web browsers block "mixed mode" content - in other words, HTTP content served in an HTTPS wrapper. This will cause certain features of the EchoSystem, such as editing, to be inaccessible or break entirely. Therefore, we highly recommend serving content over HTTPS. Not only does it prevent these problems from occurring, but it's a far more secure way of serving content. The ESS also has a built-in mechanism to re-direct users who access content over HTTP to HTTPS if the switch is made. To enable this on the ESS side, set the **Protocol** option in the **Application Network Settings** area of the **System** tab in the ESS to "All HTTPS".

Note: Mixed mode content is no longer supported as of ESS 5.4 SP3.

SSL Certificate Required for HTTPS

If you enable HTTPS on your external web server, you'll need to obtain an SSL certificate for the host. Refer to your external web server documentation on how to install a certificate.

The following sections cover individual configuration of the different external web server types.

Configuring an IIS Web Server

These instructions assume that you have already installed the Internet Information Services (IIS) features on the Windows host and have the service running with the default configuration.

Begin by opening the Internet Information Services (IIS) Manager, located under *Control Panel > Administrative Tools*.

1. On the left panel, expand your domain (or computer name) in the list.
2. Expand the **Sites** option to reveal your **Default Web Site**.
3. Right-click on **Default Web Site**, then select the **Add Virtual Directory** option.
4. In the **Alias** box, enter "echocontent" (without quotes).
5. Use the ... button or the **Physical Path** field to populate the path of the network share for your active content directory.
6. If your active content directory network share requires a domain account or elevated permissions to access, click on the **Connect As** button to enter the credentials of a specific user account that has full permission to access the share.
7. Once all fields are populated, click on **Test Settings** to verify your settings are correct.
8. When finished, click **OK**.
9. The "echocontent" alias should now appear on the left panel beneath **Default Web Site**. Expanding this option should show the sub-folders that exist in your active content directory.

Once you have verified the configuration, you'll need to restart the site for the changes to take effect. Click on the **Default Web Site** option in the left panel, and then **Restart** in the right panel under **Manage Web Site**. Continue to the [Enabling an External Web Server on the ESS](#) section below to finalize configuration.

Configuring an Apache Web Server

These instructions assume that you have already installed the appropriate Apache web server packages, along with the *mod_alias* module, and have the service running with the default configuration.

1. Make a backup copy of the existing *httpd.conf* file (typically located under */etc/httpd/conf*)
2. Add the following to your *httpd.conf* file:

```
Alias /echocontent "/var/www/echocontent"
<Directory "/var/www/echocontent">
    Options Indexes MultiViews
    AllowOverride None
    Order allow,deny
    Allow from all
</Directory>
```

3. Change both `"/var/www/echocontent"` paths to the path of the mount point you created for your Echo active content directory (quotations must be left in place).
4. Save the file.
5. Restart the Apache web server service (*/etc/init.d/httpd restart*).

Once finished, continue to the [Enabling an External Web Server on the ESS](#) section below to finalize configuration.

Configuring an NGINX Web Server

These instructions assume that you have already installed the appropriate NGINX packages and have the service running with the default configuration.

1. Make a backup copy of your configuration file before proceeding. By default, the configuration file is named *default.conf* and placed in the */etc/nginx/conf.d* directory.
2. Add the following to your *default.conf* file between the `server { }` block:

```
location /echocontent {
    alias /usr/share/nginx/echocontent;
}
```

3. Change `/usr/share/nginx/echocontent` to the path of the mount point you created for your Echo active content directory.
4. Save the file.
5. Restart the NGINX service.

Once finished, continue to the [Enabling an External Web Server on the ESS](#) section below to finalize configuration.

Enabling an External Web Server on the ESS

Once the configuration of your external web server has been completed, the final setup is to enable content playback to be served through it.

1. In the ESS interface, navigate to **System > System Settings**.
2. Click the **Edit** button. Scroll down to the **Active Echo Settings** and make the following modifications

Field	Input
Web Server	Select External from the drop-down list.
Host Name	Enter the FQDN of your external web server host.
Port (HTTPS)	Specify the port that HTTPS is using on your external web server.
HTTP Port	Specify the port that HTTP is using on your external web server (specify 80 if not used).
Base URL Path	Enter "echocontent" (without the quotation marks)
Content Folder	This field should already be populated with the location of the active content folder relative to your ESS.

3. When finished, scroll to the bottom of the page and click **Save**.
4. You will then be prompted to restart the EchoSystem Server service.

After the ESS service has been restarted, verify that Echo content playback works using your new external web server configuration.

Offloading Media File Downloads to an External Web Server

In this section:

- [Overview](#)
- [URL Rewrites](#)
- [Configuring an IIS Web Server](#)
- [Configuring an Apache Web Server](#)
- [Configuring an NGINX Web Server](#)
- [Enabling External Media Downloads on the ESS](#)

Overview

When configuring the EchoSystemServer for use with an external web server for content playback (see [Using an External Web Server for Content Playback](#)), downloadable static media, such as .MP3 and .M4V files, are still served through the built-in Jetty web server. In deployments that experience regular high load, having these files served through Jetty can have a serious impact on application performance. The following document covers how to offload the serving of these files to an external web server that has previously been configured for ESS content playback.

The following web server technology is supported for this use:

- Microsoft IIS 7
- Apache

Microsoft IIS 6 does not support URL rewrites, and therefore is not supported for this configuration.

This document also covers the configuration of NGINX, but it is not officially supported at this time.

URL Rewrites

The essence of this change involves the use of URL rewrites. When a request comes to the ESS to download a static media file, this request is then re-directed to the external web server (which already has access to the appropriate files in the active content directory defined by your ESS) to be served up for download. Each web server software package has different means of enabling URL rewrites, and the steps below make the assumption that the URL rewrite module or feature is already installed for your instance.

Consult your web server software configuration guide for further details on enabling URL rewrite capability, or contact [Echo360 Technical Support](#) for guidance.

Configuring an IIS Web Server

These instructions assume that you have already installed the Internet Information Services (IIS) packages on the Windows host and have the service configured for use with ESS content playback. Before processing, ensure that the URL Rewrite Module version 2.0 is installed. You can obtain it here: <http://www.microsoft.com/web/gallery/install.aspx?appid=urlrewrite2>. Additionally, make sure .NET is installed with IIS and .NET Roles is enabled and running under **ASP.NET** in the Features View tab in the IIS manager.

Begin by opening the Internet Information Services (IIS) Manager, located under *Control Panel > Administrative Tools*.

1. On the left panel, expand your domain (or computer name) in the list.
2. Expand the **Sites** option, then click on **Default Web Site**.
3. On the Features View tab, double-click on **URL Rewrite**.
4. In the Actions panel on the right side of the screen, click on **Add Rule(s)...**
5. In the window that appears, under the Outbound Rules section select **Blank rule** and then the **OK** button. You will then be presented with the page to create a new outbound rule.
6. Set the name of the rule to "Allow Podcast Download" (without the quotations).
7. Use the drop-down to select **<Create New Precondition...>** and populate the following values for the new Precondition:

Field	Value
Name	Only Match Podcast
Using	Regular Expressions
Logical Group	Match All

8. Click the **Add..** button to add a new condition, and populate the following values:

Field	Value
Condition Input	{RESPONSE_CONTENT_TYPE}
Check if input string	Matches the Pattern
Pattern	^audio/mpeg
Ignore case	Checked

9. Press **OK** to complete adding the condition.
10. Press **OK** to complete adding the precondition.
11. Expand the **Match** section, and populate the following values:

Field	Value
Matching Scope	Server Variable
Variable Name	RESPONSE_Content_Disposition
Variable Value	Matches the Pattern
Using	Regular Expressions
Pattern	(.*)
Ignore Case	Checked

12. Expand the **Conditions** section.
13. Set the **Logical grouping** to *Match All*.
14. Ensure the **Track capture groups across conditions** option at the bottom of the pane is checked.
15. Click on the **Add...** button. A window will appear to add a new condition. Populate the following values:

Field	Value
Condition Input	{QUERY_STRING}

Check if input string	Matches the Pattern
Pattern	^download
Ignore case	Checked

16. Press **OK** to complete adding the condition.
17. Expand the **Actions** section and populate the following values:

Field	Value
Action Type	Rewrite
Value	attachment;filename=media.mp3
Replace existing server variable value	Checked
Stop processing on subsequent rules	Unchecked

18. In the Action panel on the right side of the screen, click on **Apply**. If successful, you'll see the message: "The changes have been successfully saved."
19. Click the **Back to Rules** link.
20. Click on **Add Rule(s)...** again to add another rule.
21. Set the name of the rule to "Allow Vodcast Download" (without the quotations).
22. Use the drop-down to select **<Create New Precondition...>** and populate the following values for the new Precondition:

Field	Value
Name	Only Match Vodcast
Using	Regular Expressions
Logical Group	Match All

23. Click the **Add..** button to add a new condition, and populate the following values:

Field	Value
Condition Input	{RESPONSE_CONTENT_TYPE}
Check if input string	Matches the Pattern
Pattern	^video/m4v
Ignore case	Checked

 **Note for IIS 8.5**

Though not supported at this time, if you are using IIS 8.5 the match pattern should be set to "^video/mp4" rather than "^video/m4v".

24. Press **OK** to complete adding the condition.
25. Press **OK** to complete adding the precondition.
26. Expand the **Match** section, and populate the following values:

Field	Value
Matching Scope	Server Variable
Variable Name	RESPONSE_Content_Disposition
Variable Value	Matches the Pattern
Using	Regular Expressions
Pattern	(.*)
Ignore Case	Checked

27. Expand the **Conditions** section.
28. Set the **Logical grouping to** *Match All*.
29. Ensure the **Track capture groups across conditions** option at the bottom of the pane is checked.
30. Click on the **Add...** button. A window will appear to add a new condition. Populate the following values:

Field	Value
Condition Input	{QUERY_STRING}
Check if input string	Matches the Pattern
Pattern	^download
Ignore case	Checked

31. Press **OK** to complete adding the condition.
32. Expand the **Actions** section and populate the following values:

Field	Value
Action Type	Rewrite
Value	attachment;filename=media.m4v
Replace existing server variable value	Checked
Stop processing on subsequent rules	Unchecked

33. In the Action panel on the right side of the screen, click on **Apply**. If successful, you'll see the message: "The changes have been successfully saved."
34. Click the **Back to Rules** link.
35. The two new outbound rules should be shown in the bottom panel.
36. Restart the IIS service for these changes to take effect, and proceed to the section below [Enabling External Media Downloads on the ESS](#) .

Configuring an Apache Web Server

These instructions assume that you have already installed the appropriate Apache web server packages, and have service already configured for use with ESS content playback. You will also need to have the *mod_rewrite* and *mod_header* Apache modules installed. Refer to the Apache or system documentation for instructions on how to do this for your platform.

1. Make a backup copy of the existing *httpd.conf* file (typically located under */etc/httpd/conf*)

2. Enable the *mod_rewrite* and *mod_header* Apache modules. This is typically accomplished by adding lines like this to the *httpd.conf* file, but the specifics will depend on your platform:

```
LoadModule rewrite_module modules/mod_rewrite.so
LoadModule headers_module modules/mod_headers.so
```

3. Locate the existing *echocontent* Alias section of the *httpd.conf* file and add the following between the `<Directory>` tags:

```
RewriteEngine On
RewriteCond %{QUERY_STRING} ^download
RewriteCond %{REQUEST_FILENAME} mp3$ [OR]
RewriteCond %{REQUEST_FILENAME} m4v$
RewriteRule ([^/]+)$ - [E=dlfilename:$1]
Header onsuccess set Content-Disposition
"attachment;filename=\"%{dlfilename}e\" env=dlfilename
```

This should result in a stanza similar to this:

```
Alias /echocontent "/var/www/echocontent"
<Directory "/var/www/echocontent">
  Options Indexes MultiViews
  AllowOverride None
  Order allow,deny
  Allow from all
  RewriteEngine On
  RewriteCond %{QUERY_STRING} ^download
  RewriteCond %{REQUEST_FILENAME} mp3$ [OR]
  RewriteCond %{REQUEST_FILENAME} m4v$
  RewriteRule ([^/]+)$ - [E=dlfilename:$1]
  Header onsuccess set Content-Disposition
  "attachment;filename=\"%{dlfilename}e\" env=dlfilename
</Directory>
```

In this example, `/var/www/echocontent` is the location of the mount point created for the active content directory. Your configuration will vary.

4. Restart the Apache service for these changes to take effect, and proceed to the section below [Enabling External Media Downloads on the ESS](#).

Configuring an NGINX Web Server

These instructions assume that you have already installed the appropriate NGINX packages and have the service running with the default configuration. The `nginx` application comes bundled with a URL rewrite module by default. Normally no action will be necessary to enable it.

1. Make a backup copy of your configuration file before proceeding. By default, the configuration file is named `default.conf` and placed in the directory `/etc/nginx/conf.d`

2. Add the following directives to the location block referencing the URL alias for your ESS content (e.g., location /echocontent):

```
if ($query_string ~* ^download)
{ set $target $1; add_header Content-Disposition 'attachment;
filename="$target" '; }
```

This should result in a stanza similar to this:

```
location /echocontent
{
  alias /usr/share/nginx/echocontent;
  if ($query_string ~* ^download)
  { set $target $1; add_header Content-Disposition 'attachment;
filename="$target" '; }
}
```

In this example, /usr/share/nginx/echocontent is the location of the mount point created for the active content directory. Your configuration will vary.

3. Restart the NGINX service for the changes to take effect, and proceed to the section below [Enabling External Media Downloads on the ESS](#).

Enabling External Media Downloads on the ESS

The final step involves a change to one of the configuration files on the ESS host. You'll need access to the host the EchoSystem Server application is running on.

1. On the host file system, use a text editor to open the file labeled *wrapper.conf*, located by default under /usr/local/echo360/server/etc on Linux and C:\Program Files\Echo360\server\etc on Windows
2. Add the following line within the # Java Additional Parameters section:

```
wrapper.java.additional.981=-Decho.direct.external.download=true
```

- ⚠** Ensure that this line is inserted in numeric order relative to the other `wrapper.java.additional` values. The `wrapper.conf` file cannot have multiple `wrapper.java.additional` values with the same number. For example, if the block contained the following stanzas:

```
wrapper.java.additional.401=-Dlogback.configurationFile=etc
/jetty.logging.cfg.xml
wrapper.java.additional.402=-Dorg.apache.tapestry.enable-re
set-service=true
wrapper.java.additional.1012=-XX:MaxGCPauseMillis=1000
wrapper.java.additional.1021=-Xloggc:logs/gc.%WRAPPER_TIME_
YYYYMMDD_HHIISS%.log
```

This line would be inserted like so:

```
wrapper.java.additional.401=-Dlogback.configurationFile=etc
/jetty.logging.cfg.xml
wrapper.java.additional.402=-Dorg.apache.tapestry.enable-re
set-service=true
wrapper.java.additional.981=-Decho.direct.external.download
=true
wrapper.java.additional.1012=-XX:MaxGCPauseMillis=1000
wrapper.java.additional.1021=-Xloggc:logs/gc.%WRAPPER_TIME_
YYYYMMDD_HHIISS%.log
```

3. Save the `wrapper.conf` file, and restart the ESS service

Server Configuration for Presenters

In this section:

- [Overview](#)
- [Add a Presenter](#)
- [License Presenters](#)
- [Assign Presenters to Sections](#)
- [Assign Presenters to Schedules](#)

Overview

You typically assign the Academic Staff role to faculty, then apply one of the section roles to the faculty member when you add the faculty member's sections. Doing so allows Academic Staff to publish Personal Capture

recordings and import external media (Media Import) for those sections.

In order to use PCAP and publish those recordings, [Academic Staff must be licensed to use Personal Capture](#). Personal Capture users are also referred to as "Presenters".

Add a Presenter

Before you can make a person a Presenter, you must [add them to EchoSystem as an Academic Staff user](#). You then give that Academic Staff user a Presenter role when you [add their section](#). Presenter roles include Instructor, Student Presenter, Teaching Assistant, and Guest Presenter.

For licensing purposes, users only need to have the Academic Staff role assigned to their user account. They do not need to be a Presenter for a section or schedule in order to be licensed, however they do need to be associated with a section in order to publish recordings to a section. The licensing interface, however, refers to licensed users as "Presenters."

License Presenters

If you are licensing Presenters for **Personal Capture**, there are two options: site license or license packs. If you purchased a:

- Site license, no further licensing configuration is required. Presenters are automatically granted the ability to capture and publish.
- License pack, you must assign licenses to Presenters who will use Personal Capture.

There are four ways to assign licenses to presenters.

- Navigate to **System > Licensing** where you can:
 - [License Individual Presenters via Licensing Page](#)
 - [Bulk License Presenters via CSV Import](#)
- Navigate to **Configuration > Users** where you can:
 - [License Individual Presenters via User Profile](#)
 - [Bulk License Presenters via Users Page](#).

Assign Presenters to Sections

To publish Personal Capture recordings or to import external media for a section, the Presenter must be assigned to the section with a section role, or [assigned as a Presenter on a schedule](#) for a section.

1. On the EchoSystem Server (ESS), navigate to **Schedule > Courses**.
2. Click on the course that contains the section to be assigned.
3. On the Course Details page, click on the edit button for the Presenter's section, as shown in the figure below.

- In the People and Section Roles portion of the Edit Section page, shown in the below figure, select an Academic Staff member from the **Person** drop-down list, then select a Role for the user from the **Section Roles** drop-down list.

- Click the **Add >>** link located to the right of your selection.
- Save the changes. The user is now assigned a role for the section.

Assign Presenters to Schedules

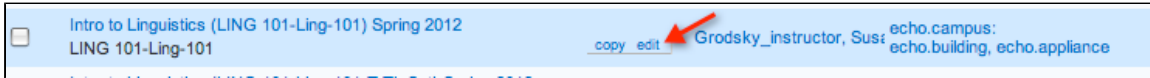
When you create a schedule for a section, you have the ability to assign a Presenter to that particular section schedule. This simply identifies who is typically presenting that particular instance of the section.

Presenters for schedules are not required to be the same people assigned section soles for the section, though typically they are. You may, for instance, have a one-time special event for a section where there is a Guest Presenter who is not necessarily assigned to that section.

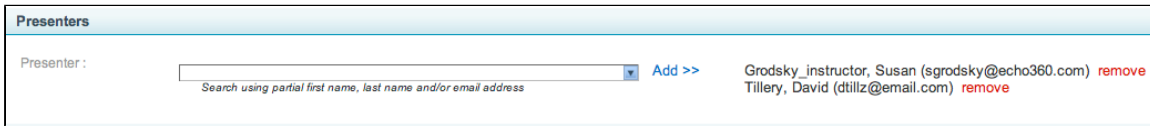
The assignment of Presenter for a section schedule allows that user to upload media and Personal Capture recordings (if the user is [licensed to use Personal Capture](#)) to the ESS for that section. Presenters can be added when you [create the schedule](#), or added later by editing an existing schedule, using the procedure below.

- On the ESS, navigate to **Schedule > Schedules**.
- From the list, find the section schedule to which you want to add a Presenter, and click **Edit**, as shown in the

figure below.



3. In the Presenters section of the Schedule Details screen shown in the below figure, select a Presenter from the drop-down list, then click **Add >>**. As is indicated below the text box, you can shorten the selection list by entering partial First Name, Last Name, and/or Email Address text into the Presenter box.



4. Repeat this step to add more Presenters to the schedule.
5. When finished, click **Save**.

Localize the EchoSystem

I want to:

- [Localize the EchoSystem User Interface](#)
- [Localize EchoSystem Components \(ESS UI, Ad Hoc UI, EchoPlayer, Editor\)](#)

Localize the EchoSystem User Interface

In this section:

- [Show the ESS in a Different Language](#)
- [Show the ESS in British English](#)
- [Change the Language Setting in Your Browser](#)

Show the ESS in a Different Language

Echo360 supports the EchoSystem in six languages:

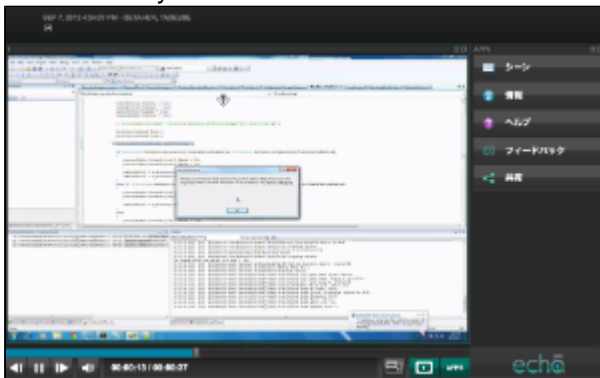
- English (U.S. English and British English)
- French
- Spanish
- German
- Arabic
- Japanese

This means that you can [change the language setting](#) in your browser and the following components will be displayed in the chosen language. The screenshots show a page of each component in Japanese. Notice that some items in the interface (such as the Echo names) are **not** localized.

- The EchoSystem Server (ESS)



- The EchoPlayer



- The EchoCenter

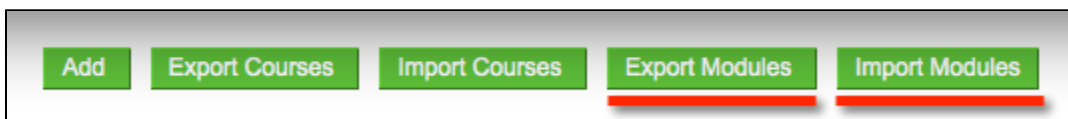


If you want to display these components in a language not listed above, you can:

- Contact the reseller for your region. Some resellers have translated the component user interface already.
- Translate the user interface for the component yourself, following the technique described in [Localize EchoSystem Components](#).

Show the ESS in British English

You can change the language setting in your browser to British English (en-gb). The term "section" will be localized to "module" the term typically used in Great Britain. For example, buttons labeled **section** when displayed in U.S. English will be labeled **module** when displayed in British English, as shown below.




See [Change the Language Setting in Your Browser](#) for instructions.

Only the en-us and en-gb Settings Are Supported

Although your browser may support Australian English (en-au), Canadian English (en-ca) and other dialects of English, the ESS supports only U.S. English (en-us) and British English (en-gb). If you specify another dialect of English, the ESS displays U.S. English (en-us).

Change the Language Setting in Your Browser

 Browsers are updated frequently. This Echo was accurate as of December 2011.

The Echo below explains how to change the language setting for two commonly used browsers, Firefox and Internet Explorer.

Rich Media version:

<http://training.echo360.com:8080/ess/echo/presentation/6ce93f44-b76a-49a0-90b4-a390b445b134>

Video Podcast version:

<http://training.echo360.com:8080/ess/echo/presentation/6ce93f44-b76a-49a0-90b4-a390b445b134/media.m4v>

Defaults and Inheritance

In this section:

- [Overview](#)
- [Concepts and Rules](#)
- [Where Do Defaults Come From?](#)
- [Inheritance](#)
- [Inheritance When You Change an Object's Organization](#)

Overview

Defaults streamline device management and capture workflow because they:

- Allow you to define settings shared among various objects at a global level
- Pass the setting values down to the related objects, such as devices, sections, and schedules

Passing these settings down is referred to as *inheritance*. Because objects inherit settings from the defaults, you do not have to set them manually. This simplifies tasks such adding a new device or creating a new schedule.

Best Practice: Set the Defaults at Installation

Set the defaults during installation or when upgrading to get the full benefit of this efficiency.

Concepts and Rules

As you work with defaults, understand these concepts.

- **Defaults.** The settings for a particular object before you customize the settings.
- **Inheritance.** The setting of one object is automatically given to a related object further down the inheritance chain.

- **Inheritance Chain.** The inheritance levels for an object.
- **Override.** Changing a default setting.
- **Object.** An entity created and managed by EchoSystem, such as a room or section.

These rules also apply:

- Any default setting can be changed on an object's settings page.
- Changes to a setting in the parent organization apply to all existing objects, except that:
- If you override a default setting for an object, changes to that setting up the inheritance chain will not change the overridden value.

Where Do Defaults Come From?

Defaults are set in different ways, depending on the object.

- **Device defaults** are set on the Device Defaults page (**Configuration > Device Defaults**). These are inherited directly by the devices, not via a parent or child organization. See [Manage Device Defaults](#) for details on each setting. These settings can be changed (see [About Devices](#)) and the new defaults will be passed down to new devices.
- **System defaults** are set on the System Settings page (**System > System Settings**).
- **Organization defaults** are set on the parent organization. These settings can be changed (see [Manage Organizations](#)) and the new defaults will be passed down from the parent to the child organization.

If you used EchoSystem before EchoSystem 4.0

These defaults replace the global defaults in earlier releases.

Inheritance

If your EchoSystem Server (ESS) has a hierarchy of parent and child organizations, the inheritance chain has four levels for most objects:

- Level 1: Parent organization.
- Level 2: Child organizations. Child organizations inherit properties from the parent organization. Example: the law school inherits the Product Group settings from the parent organization.
- Level 3: Objects or sections inherit properties from the child organization. Example: A section inherits the Product Group settings from the child organization.
- Level 4: Schedules inherit properties from sections. Example: a schedule inherits the Product Group settings from the section.

If you do not implement delegated administration (and therefore do not have a parent-child hierarchy), the chain has three levels: Level 2, the child organization level, is eliminated. Objects or sections inherit settings directly from the parent organization.

This inheritance chain does not apply to devices, which inherit their settings directly from the device default settings.

For the most part, system settings are not inherited. One exception is the Academic Staff Upload Properties, which are set at a system level (**System > System Settings**), then inherited by individual Academic Staff.

Inheritance When You Change an Object's Organization

When you change an object's organization, the object's properties may not inherit as expected.

An object's properties will be handled in these ways:

- No customization rule. If the object's properties have not been customized, it has the default values of its parent. When you move the object to a new organization it inherits the default properties of its new parent.

i No Customization Example

Room 667 was owned by Echo360 University. The Administrator of Echo360 University did not change the Admin User Name for the Ad Hoc Interface (capture appliance) from the default value. It is **Admin**. Now you move Room 667, giving ownership to the engineering school. The engineering school has also preserved the default value of this setting. After moving, the value remains **Admin**.

- Customization rule. If the object has a customized property, the customized property is preserved when the object is moved to a new organization.

i Customization Example

Room 667 was owned by the law school, which customized the Admin User Name to **Judge**. Now you move Room 667, making it part of the engineering school. The Admin User name remains **Judge**. If the engineering school has a different Admin User Name (**Admin**, **Design**), you will have to change the Admin User Name for Room 667 in the ESS interface, by navigating to the room details page for Room 667.

The customization rule does not apply if you specify the value of a property on a spreadsheet and import the property using the [import/export method](#); the value on the spreadsheet overrides any other value.

Delegated Administration and Organizations

In this section:

- [Overview](#)
- [About Hierarchies](#)
- [Organizational Ownership](#)
- [User Roles and Rights](#)
- [Licensing](#)

Overview

This page describes delegated administration and discusses relevant concepts. Review this page carefully **before deciding if you should implement delegated administration**. See [Implement Delegated Administration](#) for detailed implementation procedures.

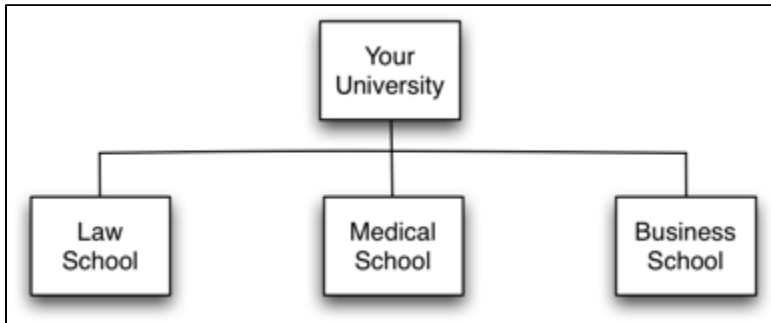
You can create a two-level hierarchy that allows you to create individual organizations such as a school within your university. You can then delegate some aspects of EchoSystem administration to the school. With delegated administration, an individual school can create users, schedule rooms, and manage sections. It can also define its own policies on such subjects as frequency of capture, the need for confidence monitoring, retention policies, and many other topics. However, an individual school may not have the resources to perform system administration operations, such as configuring the streaming server, configuring the web server, or configuring the file transfer server. These can be handled by a university-level IT department that supports each individual school.

✓ Delegated Administration is Optional

You do not have to delegate administration. Delegating allows individual schools or departments to customize the EchoSystem for their needs. If this customization is not of interest, do not create individual organizations. All objects will be owned and managed by the parent organization.

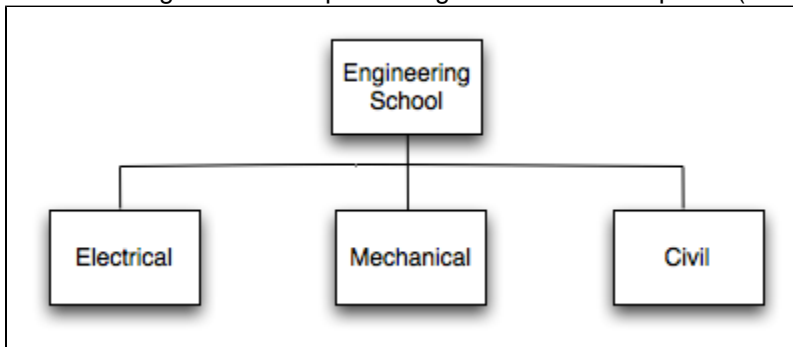
About Hierarchies

A typical hierarchy mirrors the organizations in your institution that use EchoSystem, as demonstrated in the diagram below:



This example hierarchy consists of one **parent organization** (your university) and three **child organizations** (the law school, the medical school, and the business school). You can have only one parent organization but any number of child organizations.

The parent organization need not be the university. If you want a more granular organization, you could have a hierarchy like that shown in the following diagram, where the parent organization is the Engineering school, with three child organizations representing the different disciplines (electrical, mechanical and civil):



You can create only one, two-level hierarchy per EchoSystem Server (ESS). You cannot create both of the hierarchies illustrated above in a single ESS.

To add the organizations that create hierarchy, see [Manage Organizations](#).

When you create a hierarchy, three other concepts become important:

- Organizational ownership
- Inheritance
- User roles and rights

Organizational Ownership

Objects are entities within the EchoSystem. With the addition of hierarchy, it is possible for organizations to own objects. Owning an object means having the ability to schedule it, use it, or share it with another organization. Both the parent organization and the child organizations can own objects and, in a typical configuration, both do. However, certain objects can only be owned by the parent organization.

Some objects can have **shared ownership**:

- When an object is shared, organizations other than the owner can schedule or use the object.
- Only the owner can modify the properties of the shared object.
- Objects owned by the parent organization are automatically shared with all child organizations.
- Child organizations can own objects but cannot share them. Only the parent organization can share objects.

Rooms and courses are commonly shared:

- **Rooms.** You might share a room when two different child organizations (say, the Engineering School and the School of Arts and Sciences) use a room and want to be able to schedule courses for it. It is good practice for the parent organization to own the room and share it.
- **Terms.** If the term is the same among organizations it is good practice for the parent organization to own the term and share it.

Courses, by contrast, are commonly owned by a single organization, so that school only can customize the course and other schools cannot manage it.

The table below gives ownership details for all objects.

Object	Can be owned (and shared) by parent organization?	Can be owned by child organization?	Can be batch moved to another Organization?	Comments
room	Yes	Yes	No	Rooms and capture devices depend on each other to function. A room and the device assigned to a room must be owned by the same organization. The move operation will check some dependencies before completing.
term	Yes	Yes	No	A term can be owned by a child organization but cannot be moved to another child organization.

device	Yes	Yes	Yes	<p>Rooms and capture devices depend on each other to function. A room and the device assigned to a room must be owned by the same organization. Devices can be assigned to any organization at registration time.</p> <p>The move operation will check some dependencies before completing. You can move many devices at once by exporting then importing rooms.</p>
content security module	Yes	Yes	No	<p>A content security module can be owned by a child organization but cannot be moved to another child organization.</p>

media processor	Yes	Yes	No	<p>Initially, all media processors are owned by the parent organization.</p> <p>Media processors owned by the parent organization share the load for all child organizations.</p> <p>A media processor owned by the child organization handles jobs only for that child organization.</p> <p>A child organization Administrator can change job priorities only for media processors owned by the child organization.</p>
publisher	Yes	Yes	No	<p>A publisher can be owned by a child organization but cannot be moved to another child organization.</p>
course	Yes	Yes	Yes	<p>Courses own sections. If you move a course from one organization to another, all related sections move with the course. When a section moves, certain other objects move with it. See the description of section in this table for details.</p>

branding asset	Yes	Yes	No	A branding asset can be owned by a child organization but cannot be moved to another child organization.
section	Yes	Yes	Yes	<p>Sections own certain other objects: schedules, capture records, and Echoes. When a section moved to a new organization, all of these objects move with it.</p> <p>A capture record is the unique record for the specific capture. It appears in the Monitor tab when the capture is running and in the logs after the capture completes.</p> <p>You can move many sections to a new organization at once by exporting or importing sections.</p>
schedule	Yes	Yes	Yes	Schedules are owned by a section and move with the section. If you move a section from one organization to another (from child to child, from parent to child, from child to parent), the schedule for the section moves with the section.
Echo	Yes	Yes	Yes	

Echoes are owned by a section. If you move the section to a different organization, Echoes move with the section.



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campus	Yes	No	No	A campus cannot be owned by a child organization but the child organization Administrator can add or edit a campus when adding a room.
building	Yes	No	No	A building cannot be owned by a child organization but the child organization Administrator can add or edit a building when adding a room.
application security module	Yes	No	No	The application security module supports querying multiple LDAP servers and trees. See LDAP Authentication .
license	Yes	No	No	All licenses are owned by the parent organization. Both parent and child organization Administrators can assign licenses to venues and users. We recommend that Administrators coordinate their efforts to ensure proper license assignment.
trusted system	Yes	No	No	--

user	Yes	No	Yes	<p>All user objects are owned by the parent organization and assigned access rights to both parent and child organizations through roles.</p> <p>You can assign many roles at once by exporting or importing users.</p>
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User Roles and Rights

When you create a hierarchy with a parent organization and child organizations, certain roles are associated with an organization. Others are associated with a section. This distinction is important because organization roles are defined on the User page in the ESS (**Configuration > Users**) but section roles are defined on the Section page (**Schedules > Courses**).

Rights "flow down". This means that the Admin at the parent organization level can make configuration choices for any child organization. Say, for example, that the Admin at the parent organization has specified that the Days to Keep Originals setting is 120 days. However, the business school is running short on storage space and the Admin for the business school is on vacation. The parent organization Admin can change this setting for the business school. The business school is lower in the hierarchy, so the parent organization Admin has access rights.

For details on the different roles and instructions on adding users, see [Manage Users](#).

Licensing

A license is an object and, like all objects, a license owned by the parent organization is automatically shared with child organizations. This means that any existing course, venue, or user can be assigned a license because it can use the parent organization license.

On upgrade, all licenses are owned by the parent organization.

A license can be purchased by a child organization and used only for that child organization, but the license **will always be owned** by the parent organization. Parent organization licenses are still shared and can still be used by a child organization that has purchased its own license.

See [Manage Licenses](#) for details.

Implement Delegated Administration

In this section:

- [Overview](#)
- [Plan the Organizational Hierarchy](#)
- [Plan Organizational Ownership](#)
- [Plan User Roles](#)
- [Add Child Organizations](#)
- [Reassign Ownership of Objects](#)
- [Reassign User Roles](#)

Overview

Who can do this?

- System Administrator
- Administrator of Parent Organization

You can follow this process to implement delegated administration in either of these circumstances:

- **New install.** You are installing the EchoSystem Server (ESS) for the first time. You will be able to skip some steps.
- **Upgrade.** You have an existing ESS and are upgrading to a release that supports delegated administration. Delegated administration is supported in EchoSystem 4.0 and later.

The implementation process described here assumed you have already:

1. Reviewed the [relevant documentation](#).
2. Gained a thorough understanding of the concepts underlying delegated administration: organizations, hierarchy, inheritance, object ownership.
3. Decided that you want to implement delegated administration.
4. Set up a test system.
5. Installed a release that supports delegated administration on that test system. Delegated administration is supported in EchoSystem 4.0 and later.
6. Attended any training classes available or held discussions with Echo360 engineers.

Implementing delegated administration consists of these steps:

1. [Plan the organizational hierarchy](#).
2. [Plan organizational ownership](#).
3. [Plan user roles](#).
4. [Add child organizations](#).
5. [Reassign ownership of objects](#). New installs can skip this step.
6. [Reassign user roles](#). New installs can skip this step.

Best Practices

1. Complete all of the planning steps before you begin implementation.
2. Create delegated administration on a test system and verify it before moving to a production system.

Plan the Organizational Hierarchy

Delegated administration allows you to create a two-level hierarchy consisting of a parent organization and as many child organizations as you like.

List the child organizations you intend to create, such as:

- Law School
- Medical School
- Business School

See [About Hierarchies](#) for discussion and examples.

Plan Organizational Ownership

The advantage of delegated administration is that child organizations can own objects (such as rooms, devices, publishers, courses, or sections), configuring them and managing them as they like.

If you implemented delegated administration already, any existing organizational hierarchy is respected when you install an upgrade.

If you have not implemented delegated organization, all objects are owned by the parent organization. In this step, you list specific objects and decide which should be owned by child organizations. See [Organizational Ownership](#) for details. Consider these guidelines:

- Some objects can only be owned by the parent organization
- Some objects can be owned by either the parent organization or a child organization
- Some objects can be shared

See [Organizational Ownership](#) for discussion and examples.

Plan User Roles

If you implemented delegated administration already, any existing user roles are respected when you install an upgrade. You can probably skip this step.

If you are implementing delegated administration for the first time, do this step.

- **Add Organization Administrators.** You may want to reassign some System Administrators to either the parent organization Administrator or child organization Administrator role.
- **Reassign some Instructors to an auxiliary role.** You may want to reassign some Instructors to the Teaching Assistant or Guest Presenter roles.
- **Assign Instructors to a section.** You must assign Instructors to sections.
- **Appoint a License Manager.** You may want to assign a staff member the new role of License Manager. It is typical for an organization Administrator to also have the role of License Manager.

See [Manage Users](#) for discussion and examples.

Add Child Organizations

See [Add a Child Organization](#).

Reassign Ownership of Objects

New installs can skip this step. If you have an existing installation but are implementing delegated administration for the first time, do this step.

Follow this order to ensure a smooth process.

1. **Reassign courses.** You can reassign many courses to a child organization efficiently by using the export and import feature. See [Import Courses](#). You do not need to reassign sections, schedules, and Echoes. These

reassignments occur automatically when you reassign the course.

2. **Reassign rooms.** If you have only a few rooms to reassign to new organizations, you can [edit the room details](#). If you have many rooms to reassign, use the [export and import feature](#). The devices associated with a room are automatically reassigned when you reassign the room.
3. **Reassign devices.** You can reassign devices in two ways. First, when you reassign a room, the device associated with the room is also reassigned. Second, if a device is not associated with a room, you can associate it by editing the Current Room Assignment setting.
4. **Reassign security modules.** A security module is typically shared, but you can reassign it by editing the security module details. Navigate to **System > Security** and edit the security module.
5. **Reassign media processors.** Edit the media processor details. Navigate to **Configuration > Devices** and edit the media processor.
6. **Reassign publishers.** Edit the publisher details. Navigate to **Configuration > Publishers** and edit the publisher.

Reassign User Roles

New installs can skip this step. If you have an existing installation but are implementing delegated administration for the first time, do this step.

Organizational user roles can be reassigned efficiently by using the export and import features with a spreadsheet program such as Excel. See [Import Users](#). You can use this feature to assign the Academic Staff role.

After you assign the Academic Staff role to a user, you will probably want to assign a section role (Instructor, Guest Presenter, Student Presenter, Teaching Assistant). These roles must be assigned role by role. See [People and Section Roles](#).

Manage Organizations

In this section:

- [Overview](#)
- [Edit the Parent Organization](#)
- [Add a Child Organization](#)
- [Edit a Child Organization](#)
- [Delete a Child Organization](#)

Overview

Since EchoSystem 4.0, you have had the ability to implement a hierarchy of parent and child organizations ("delegated administration"). The parent organization, typically the university, is established automatically when you install EchoSystem 4.0 or higher. If you are **upgrading to the current release** from EchoSystem 4.0 or later, you should have already adjusted your configuration to work with delegated administration.

You can also establish child organizations, which are often component schools such as the School of Nursing. Once you have child organizations, they can own rooms, devices, and other objects.

Child organizations initially inherit all of the settings of the parent but you can customize those settings. Customization allows an individual school to define its own policies on such subjects as frequency of capture, the need for confidence monitoring, retention policies, and many other topics.

You can have two hierarchical levels: parent and child. You can have only one parent but any number of child organizations.

i You Cannot Delete the Parent Organization.

If you are the System Administrator or the Administrator of the parent organization, you can edit the parent organization's details or add a child organization to it. You cannot delete it.

Edit the Parent Organization

i Who can do this?

- System Administrator
- Administrator of Parent Organization

The parent organization's settings are specified automatically when it is created, but they can be edited. These customized settings become the default settings for child organizations.

1. Navigate to **Configuration > Organizations**. The Organizations page appears.
2. Select the parent organization. Buttons appear in the highlighted row. The parent organization is selected in the example below.

Name	Full Name
Echo360	Echo360 University
Echo360 / CLP	Echo360 CLP Department
Echo360 / Engineering	Martin School of Engineering

View: 20 Organizations per Page

Add

EchoSystem v. 3.1.2011-02-21.1* | ess@echo360.com | Logout

3. Click **edit**. The Edit Organization – *Parent Name* page appears.
4. Modify settings. See [Organization Settings](#) for details.

Add a Child Organization

i Who can do this?

- System Administrator
- Administrator of Parent Organization

1. Navigate to **Configuration > Organizations**. The Organizations page appears as shown in the figure below.

Organizations 1 - 3 of 3

Name ▲	Full Name
Echo360	Echo360 University
Echo360 / CLP	Echo360 CLP Department
Echo360 / Engineering	Martin School of Engineering

View: Organizations per Page 1 - 3 of 3

[Add](#)

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2. Click **Add**. The Add Organization page appears.
3. Review the settings, which are inherited from the parent organization.
4. Change the inherited settings as needed. For example, if you want to display the child organization's logo in the EchoPlayer, you would change the Player Logo Image setting. You might also customize the Player Logo Hover Text and Player Logo Click URL settings. See [Organization Settings](#) for details.
5. Click **Save**.

Edit a Child Organization

i Who can do this?

- System Administrator
- Admin of Parent Organization
- Admin of Child Organization (that is being edited)

1. Navigate to **Configuration > Organizations**. The Organizations page appears.
2. Hover over an organization to edit. Buttons appear in the highlighted row, as shown in the figure below.

Organizations 1 - 3 of 3

Name ▲	Full Name
Echo360	Echo360 University
Echo360 / CLP	Echo360 CLP Department
Echo360 / Engineering	Martin School of Engineering

View: Organizations per Page 1 - 3 of 3

[Add](#)

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3. Click **edit**. The Edit Organization – *Parent Name / Child Name* page appears.
4. Review and change the current settings as needed. See [Organization Settings](#) for details on the available fields and settings.

- When finished, click **Save**.

Delete a Child Organization

i Who can do this?

- System Administrator
- Administrator of Parent Organization
- Administrator of Child Organization (that is being deleted)

- Navigate to **Configuration > Organizations**. The Organizations page appears.
- Select an organization to delete. Edit and delete buttons appear in the highlighted row. You can only delete organizations that are **not** associated with rooms, courses, and other entities. To delete an organization, you must delete those entities first.
- Click **delete**. A confirmation dialog box appears.
- Confirm that you want to delete the child organization by clicking **Yes**. The child organization is removed from your EchoSystem Server (ESS).

Organization Settings

In this section:

- [Overview](#)
- [Organization Details](#)
- [Schedule Settings](#)
- [Media Settings](#)
- [Echo Deletion Settings](#)
- [Echo Defaults](#)
- [Branding](#)
- [EchoCenter](#)
- [EchoPlayer](#)
- [Product Groups](#)
- [Security Settings](#)
- [Support](#)
- [Upload Settings](#)

Overview

The parent organization is automatically created with particular default settings. You can change those settings and child organizations will inherit the new default settings. See [Manage Organizations](#).

The individual settings are:

- [Organization Details](#)
- [Schedule Settings](#)
- [Media Settings](#)
- [Echo Defaults](#)
- [Branding](#)
- [EchoCenter](#)
- [EchoPlayer](#)
- [Product Groups](#)
- [Security Settings](#)
- [Support](#)

- [Upload Settings](#)

Details on these settings are provided in the sections that follow.

Organization Details

Organization Details	
Short Name :	<input type="text" value="Westman"/>
EchoSystem Identifier :	e1c8621e-8f2a-4f10-b7d8-09e6393e03b3
Alternate Identifier :	<input type="text"/>
Full Name :	<input type="text" value="Northwestern NY University - Westman School of Music"/>

The table below provides definitions for the Organization Details options.

Setting	Definition	Inheritance
Short Name	Name of the organization as it appears in the user interface	N/A
EchoSystem Identifier	The globally unique identifier (GUID) used by the EchoSystem Server (ESS) to identify the object. The ESS automatically assigns this ID to each object in the system. You may use this identifier when making API or other system calls. See API Documentation for further explanation.	N/A
Alternate Identifier	The globally unique identifier (GUID) used by an external system, such as an LMS or LDAP, to identify the object. Entering an Alternate ID is optional, but allows you to use the external system's GUID (not the EchoSystem Identifier) when making API or other system calls. The Alternate Identifier must be unique for each ESS object type. See API Documentation for further explanation.	N/A
Full Name	Use this field to include a full description of the organization	N/A

Schedule Settings

Schedule Settings

These settings control default schedule values. Change these settings on a section's or schedule's page to override the global defaults.

Term : Choose... Duration (minutes) : 10

Default Publishers :

Available	↔	Selected
BB Links Seamless Blackboard Links	select ↔ deselect	Echo360 Search Indexing RSS Feed Section

The table below provides definitions and inheritance information for the Schedule Settings options.

Setting	Definition	Inheritance
Term	The default term used when creating new schedules and the term in which to copy schedules	Parent Organization > Child Organization > Schedule
Time Zone	The default time zone used when creating captures within new schedules	Parent Organization > Child Organization > Schedule
Duration	The default duration used when creating captures within new schedules	Parent Organization > Child Organization > Schedule
Default Publishers	The default publishers used for sections (new and existing) and schedules (new and existing)	Parent Organization > Child Organization > Schedule

Media Settings

Media Settings

These settings control the automated deletion of raw media files and media file copyright insertion. Change these settings on a section's page to override the global defaults.

Delete Original Media? :

Days to Keep Originals : 120

Display Media Links on Playback :

The table below provides definitions and inheritance information for the Media Settings options.

Setting	Definition	Inheritance
Delete Original Media?	A check box value enabling or disabling the feature and the Days to Keep Originals field.	N/A

Days to Keep Originals	How long original (raw media) files are kept before being automatically deleted. The number of days is defined from the capture date of the echo.	Parent Organization > Child Organization > Section
Display Media Links on Playback	If checked, links appear in the EchoPlayer that allow a student to download Podcasts or Vodcasts. Downloaded files can be distributed by the student. If unchecked, a student must stream the files.	Parent Organization > Child Organization > Section

Echo Deletion Settings

Echo Deletion Settings

These settings control the automated deletion of echoes. Change these settings on a section's page to override the global defaults.

Automatically delete Echoes? :

Days to Keep Echoes :

The table below provides definitions and inheritance information for the Echo Deletion Settings options.

Setting	Definition	Inheritance
Automatically Delete Echoes?	A check box value enabling or disabling the feature and the Days to Keep Echoes field.	N/A
Days to Keep Echoes	How long original Echoes are kept before being automatically deleted. The number of days is defined from the capture date of the echo.	Parent Organization > Child Organization > Section

Echo Defaults

Echo Defaults

This setting controls the default presentation state. Presentations can either be made Available or Unavailable by default. Change these settings on a section's or schedule's page to override the global defaults.


Echoes Initially Unavailable? :

The table below provides definitions and inheritance information for the Echo Defaults options.

Setting	Definition	Inheritance
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Echoes Initially Unavailable?

A check box value defining if the default state of a new Echo (presentation) should be "Unavailable". This is typically used for workflows requiring approval or editing of presentations before student review or for workflows favoring presentation release at specified times, such as a week before exams.

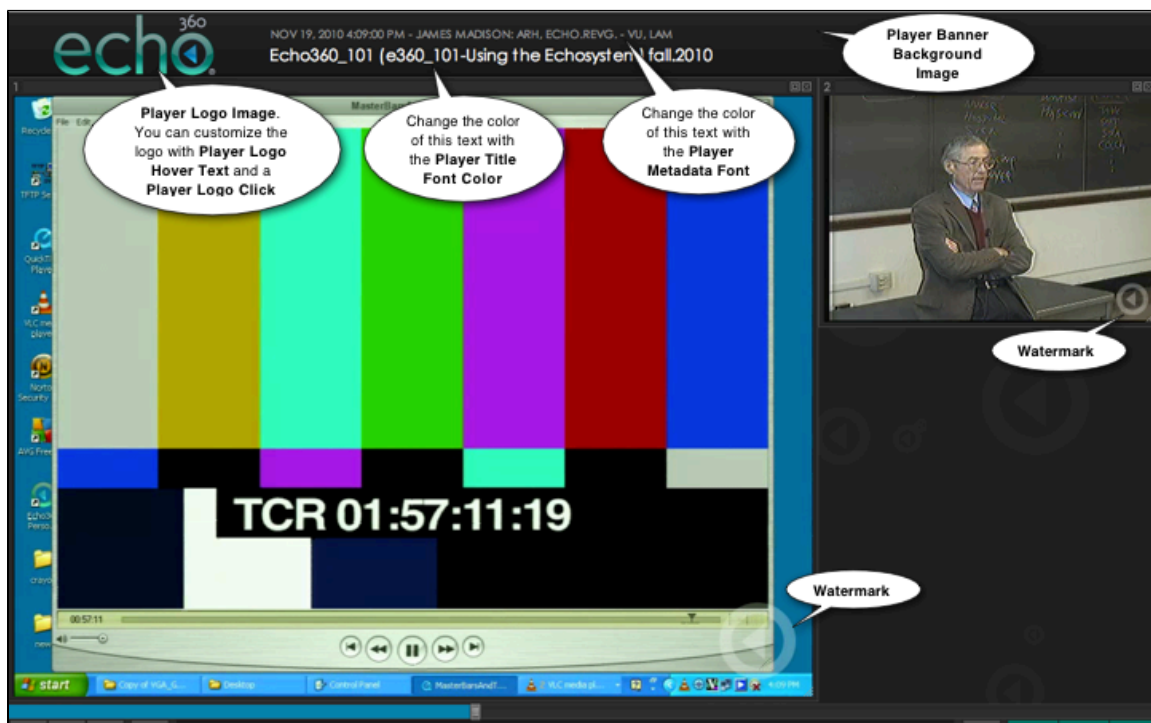
 **Live Streaming Not Available if Checked**

If a schedule is configured for a Live Webcast section and this box remains checked on the [Section scheduling page](#), Live Webcast streaming of the section will **not** be available. You can still check this box as the default for Section schedules, however if any Live Webcasting schedules are created or edited, the **Echoes Initially Unavailable** check box **must** be unchecked.

Parent Organization > Child Organization > Schedule**Branding**

Branding	
<p><i>These settings control the optional colors, images and copyright text used to brand the Echo player for your institution. There are also settings to add a short video clip at the beginning and end of media files. Change these settings on a section's page to override the global defaults.</i></p>	
Copyright Text :	<input type="text"/>
Enforce Copyright Acknowledgement :	<input type="checkbox"/>
Player Metadata Font Color :	<input type="text" value="#999999"/>
Player Banner Background Image :	<input type="button" value="Choose..."/>
Player Logo Hover Text :	<input type="text"/>
Intro Clip :	<input type="button" value="None Available"/>
Watermark Image :	<input type="button" value="Choose..."/>
Player Title Font Color :	<input type="text" value="#ffffff"/>
Player Logo Image :	<input type="button" value="None Available"/>
Player Logo Click URL :	<input type="text"/>
Outro Clip :	<input type="button" value="None Available"/>

Students viewing Echoes in the EchoPlayer will see your institution's logo or other branding assets, as shown in the figure below:




In some cases, you will need to upload an image or video clip file to the branding repository before selecting it from a drop-down list. See [Manage the Branding Files Repository](#).

Note the following details about application or changes to Branding settings:

- After you establish the branding items described below, they are automatically applied to new Echoes.
- Existing Echoes displayed in the EchoPlayer product will have the Player Banner Background Image and copyright text applied after you establish these branding items.
- Existing Echoes displayed in the Podcast product must be reprocessed (presentation by presentation) to apply any brand item.
- If a brand item does not appear in an existing Echo, reprocess the Echo. Press the **Reprocess Media** button at the bottom of the Echo Details page.

The table below provides definitions and inheritance information for the Branding options.

Setting	Description	Inheritance
Copyright Text	<p>Copyright text appears on the loading screen in the EchoPlayer and Podcast products. Enter the copyright text.</p> <ul style="list-style-type: none"> • Formatting (such as capital letters and spaces) is respected. • The color of the copyright text changes to coordinate with the EchoPlayer theme chosen. The text is white if the dark theme is chosen, black if the light theme is chosen. • The character limit depends on the exact release installed. • You can enter about 400 words in English. The word count will be different in other languages. 	Parent Organization > Child Organization > Section
Enforce Copyright Acknowledgment	<p>If you check this box, users must acknowledge that the material is copyrighted before viewing.</p> <div style="border: 2px solid orange; padding: 10px; margin: 10px 0;"> <p> Enforcing copyright acknowledgment prevents Echo playback from embedded EchoPlayers. If you or your users plan to embed EchoPlayers, do not check this box, or plan to uncheck it on a per-section basis as needed.</p> </div>	Parent Organization > Child Organization > Section

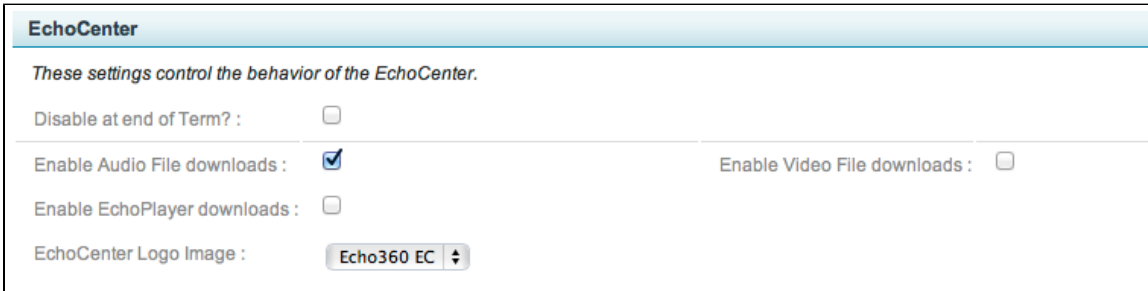
<p>Player Metadata Font Color</p>	<p>Metadata appears in the upper left corner of the EchoPlayer, next to the logo. It includes the date, time, room, and Presenter.</p> <p>The Player Banner Background Image is layered below this text. Choose a color that contrasts well with the background image.</p> <p>Metadata is in smaller and lighter weight type above the class title.</p> <p>Type the HTML number for the metadata font color. To find the HTML number, we recommend the site http://kuler.adobe.com/. You could specify one of your institution's characteristic colors.</p>	<p>Parent Organization > Child Organization > Section</p>
<p>Player Title Font Color</p>	<p>The class title appears in the upper left corner of the EchoPlayer window, next to the logo. It is in larger and heavier weight type under the metadata.</p> <p>The Player Banner Background Image is layered below this text. Choose a color that contrasts well with the background image.</p> <p>Type the HTML number for the color. To find the HTML number, we recommend the site http://kuler.adobe.com/. You could specify one of your institution's characteristic colors.</p>	<p>Parent Organization > Child Organization > Section</p>

<p>Player Banner Background Image</p>	<p>The banner background appears in the upper portion of the EchoPlayer window.</p> <p>Select the desired image from the drop-down list. To see details about available branding files, navigate to Schedule > Branding.</p> <p>If the file you want to use is not available, upload the image to the branding repository so you can select it. See Manage the Branding Files Repository.</p> <p>You could upload an image of your institution or department.</p>	<p>Parent Organization > Child Organization > Section</p>
<p>Player Logo Image</p>	<p>The logo appears in the upper-left corner of the EchoPlayer window.</p> <p>Select the desired image from the drop-down list. To see details about available branding files, navigate to Schedule > Branding.</p> <p>If the file you want to use is not available, upload the image to the branding repository so you can select it. See Manage the Branding Files Repository.</p>	<p>Parent Organization > Child Organization > Section</p>
<p>Player Logo Hover Text</p>	<p>Enter the text to display when the student hovers a cursor on the EchoPlayer logo image. If the logo links to your institution's home page, your hover text might be "Go to <my_institution's> home page."</p>	<p>Parent Organization > Child Organization > Section</p>
<p>Player Logo Click URL</p>	<p>You can make the EchoPlayer logo image a hyperlink by entering a URL in this field. When the student clicks on the logo a new browser window opens with this URL. You might, for example, link to your institution's homepage.</p>	<p>Parent Organization > Child Organization > Section</p>

<p>Intro Clip</p>	<p>An intro (also called "bumper") is a movie or clip that plays before the captured content. You can use this to promote your institution or department.</p> <p>The intro appears in the Podcast, Vodcast, and EchoPlayer products.</p> <p>Select the desired file from the drop-down list. To see details about available branding files, navigate to Schedule > Branding.</p> <p>If the file you want to use is not available, upload the image to the branding repository so you can select it. See Manage the Branding Files Repository.</p>	<p>Parent Organization > Child Organization > Section</p>
<p>Outro Clip</p>	<p>An outro is a movie or clip that plays after the captured content.</p> <p>The outro appears ONLY in the Podcast and Vodcast products; it does not appear in the EchoPlayer.</p> <p>Select the desired file from the drop-down list. To see details about available branding files, navigate to Schedule > Branding.</p> <p>If the file you want to use is not available, upload the image to the branding repository so you can select it. See Manage the Branding Files Repository.</p>	<p>Parent Organization > Child Organization > Section</p>

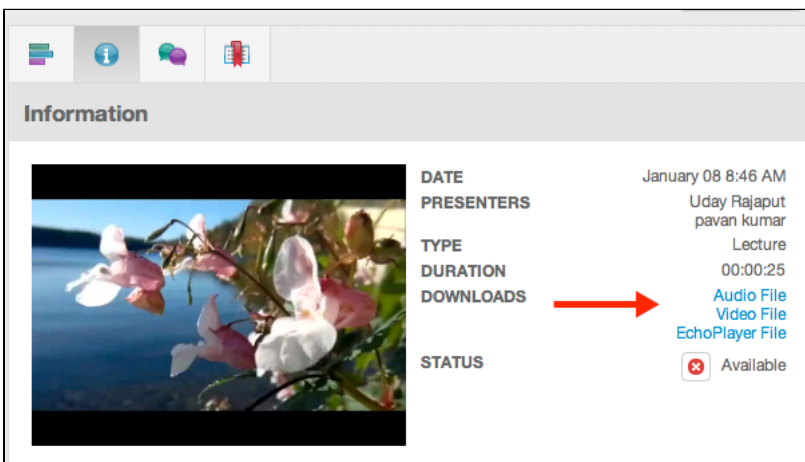
<p>Watermark Image</p>	<p>A watermark is an image file (such as a logo) that appears in the lower right corner of both the video pane and the content (VGA) pane.</p> <p>Select the desired file from the drop-down list. To see details about available branding files, navigate to Schedule > Branding.</p> <p>If the file you want to use is not available, upload the image to the branding repository so you can select it. See Manage the Branding Files Repository.</p>	<p>Parent Organization > Child Organization > Section</p>
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EchoCenter



Use these settings to control the behavior of certain aspects of the EchoCenter.

The Enable downloads options let you determine whether or not users can download processed echoes for offline access, and in what format. When enabled, the available downloads appear as links for the Echo in the EchoCenter, as identified in the below figure.



The table below provides definitions and inheritance information for the EchoCenter options.

Setting	Definition	Inheritance
---------	------------	-------------

Disable at end of Term?	The EchoCenter page for the course will be disabled when the term ends.	Parent Organization > Child Organization > Section
Enable Audio File downloads	If checked, the EchoCenter page provides an Audio file (Podcast) download link. It appears on the Info tab for an Echo. This allows users to download the audio recording of the Echo for offline listening.	Parent Organization > Child Organization > Section
Enable Audio File downloads	If checked, the EchoCenter page provides an Audio file (Vodcast) download link. It appears on the Info tab for an Echo. This allows users to download the video of the Echo recording for offline viewing.	Parent Organization > Child Organization > Section
Enable EchoPlayer downloads	<p>If checked, the EchoCenter page provides an EchoPlayer download link. It appears on the Info tab for an Echo. This allows users to download the EchoPlayer browser-based playback media experience. This is useful for instances where available internet speeds for students are not fast enough to allow streamed viewing over the internet.</p> <p>Be advised that you must have the proper licensing for your EchoSystem in order for this option to appear.</p>	Parent Organization > Child Organization > Section
EchoCenter Logo Image	Allows you to select an image that will appear on EchoCenter pages. You must first add the image to the branding repository. See Manage the Branding Files Repository .	Parent Organization > Child Organization > Section

EchoPlayer

EchoPlayer

These settings control which applications are available in the EchoPlayer.

Discussions : Feedback :

Sharing :

The table below provides definitions and inheritance information for the EchoPlayer options.

Setting	Definition	Inheritance
Discussions	Check to enable the Discussions application in the EchoPlayer. You must subscribe to the Collaboration and Statistics Service to enable this application.	Parent Organization > Child Organization > Section
Feedback	Check to enable the Feedback application in the EchoPlayer.	Parent Organization > Child Organization > Section
Sharing	Check to enable the Sharing application and Embed code for the EchoPlayer. The Share button in the EchoPlayer allows users to share a link to the Echo, or to embed the Echo on a 3rd party website, such as an LMS, or staff member's website/course page, or a social media site.	Parent Organization > Child Organization > Section

Product Groups

Product Groups

These settings control the default product groups created for each capture. Change these settings on a section's or schedule's page to override the global defaults.

Product Group : Display Only (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality ▾

The table below provides definitions and inheritance information for the Product Group options.

Setting	Definition	Inheritance
Product Group	The product group specified here is inherited by sections. You can change the value either here in the organization or on the section.	Parent Organization > Child Organization > Section

Security Settings

Security Settings

These settings control the security.

Security Module : Allow All ▾

This setting allows you to implement either the [standard or Collaboration Service versions of the EchoCenter pages](#).

The Standard version of EchoCenter does not require user authentication and therefore does not provide the same level of functionality as the Collaboration Service version of the EchoCenter does.

Collaboration features require the system to know who is logged in. This means that in order to use Collaboration and present the appropriate information and features, you must use a security module that requires authentication. Conversely, sections configured with a Security Module that requires user authentication are presented with the Collaboration Service version of EchoCenter.

The table below provides definitions and inheritance information for the Security Settings options. The options you can select from this list depends on what [Security Modules](#) have already been configured for your system.

Setting	Definition	Inheritance
---------	------------	-------------

Security Module

Specify the security module to use, by default, for all configured sections in the Organization. Security settings determine how (or whether) the ESS should verify a user's credentials when accessing EchoCenter, EchoPlayer, or other content. Security modules may have custom names.

Allow All does not authenticate users for access, and therefore implements the Standard version of the EchoCenter.

Authentication Required uses either the ESS user information or an external [Trusted System](#) such as [CAS or Shibboleth](#) to authenticate users. You can also configure the LMS (like Blackboard or Moodle) as as trusted system to authenticate users. This configuration requires users to access EchoCenter through the LMS.

LDAP allows you to use an external LDAP system for user authentication. See [LDAP Authentication](#) for more information.

- If you are using [LTI-Based Publishing](#), you **MUST** use either LDAP or Authentication Required as the security module for sections to be presented through an LTI integrated system.

Seamless Only requires the use of an LMS (such as Blackboard or Moodle) or other third party system to pass through user credentials and allow user access.

- With Seamless Only, users can only access Echoes through the third party system and *only* if the appropriate building blocks or plug-ins have been installed. Echo360 provide downloads for supported systems via the [Customer Portal](#).

Parent Organization > Child Organization > Section

Support

We recommend that you provide instructions on the specifics of your playback products, directing students to your institution's website and help desk. The help link is visible on the student's EchoPlayer during playback (in the browser).

Support	
<i>Help information can optionally be provided. If this information is entered, it will be provided to users in the Echo player when presentations are viewed. Change these settings on a section's page to override the global defaults.</i>	
Support URL Text: <input type="text"/>	Support Phone: <input type="text"/>
Support URL: <input type="text"/>	

The table below provides definitions and inheritance information for the Support options.

Section	Description	Inheritance
Support URL Text	Defines text to be displayed when the student rests their cursor on the help link displayed in the EchoPlayer. Example: "Online help."	Parent Organization > Child Organization > Section
Support Phone	Defines a phone number for technical support that students can call with questions or problems on the EchoPlayer. This number appears in the Help tab of the EchoPlayer.	Parent Organization > Child Organization > Section
Support URL	Defines a URL to your help page or help system URL in this field. A link to this help page will be displayed in the Help tab of the EchoPlayer.	Parent Organization > Child Organization > Section

Upload Settings

The Upload Settings allow you to configure and enforce file size quotas for each section. The quota applies to instructor-uploaded files like external media files and Personal Capture recordings. Section upload quotas let you limit the amount of total storage that can be used for these files.

Upload Settings	
<i>These settings control the upload of media files via the External Media tab in the EchoSystem Server and via Echo360 Personal Capture. Change these settings on a section's page to override the global defaults.</i>	
Enforce section upload quotas: <input type="checkbox"/>	Section upload quota (MB): <input type="text" value="20,480"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Note the following about quotas:

1. Quota size includes the **total** of the processed AND completed media files (the /content AND the /flash folder on the file system), not just uploaded files. Take this into consideration when calculating quota allotments per

section. Avoid a situation where the processed file storage requirement is significantly greater than the section quota. For example:

- Section Quota - 10 MB
 - Unprocessed uploaded file - 8 MB
 - Processed file storage file - 41 MB
2. Quotas can only be enforced on upload. Once uploaded, media is made available. If the processed file size causes the quota to be reached or exceeded, future uploads will fail unless the quota is increased.
 3. Once a quota is reached, and if section upload quotas are enforced, users will not be able to upload additional files.

The table below provides definitions and inheritance information for the Upload Settings options.

These settings relate to the Media Import feature. See [Import Other Media for Academic Staff](#) for details on this feature.

Setting	Definition	Inheritance
Enforce section upload quotas	If set to the default value (No), Presenters may import as many other media files as they wish and those files can be of any size.	Parent Organization > Child Organization > Section
Section upload quota (MB)	<p>This setting is enforced only if the Enforce section upload quotas setting is Yes.</p> <p>If set to the default value (0), Presenters cannot import external media files.</p> <p>When setting this value, consider the amount of storage you have available and the needs of Presenters. This value is the total amount of file space used for both processed and completed media files, as noted above.</p>	Parent Organization > Child Organization > Section

System Management and Reporting

In this section:

- [Overview](#)

Overview

EchoSystem provides a variety of ways to manage and monitor the system. The topics in this section provide information and instructions on using the available tools to keep apprised of system usage, issues, set alerts and if necessary, upload server information to the Echo360 support team. The pages in this section include:

- [Monitor the System and Set Alerts](#)
- [Manage System Indexes](#)

- [Student Usage Reports](#)
- [Track ESS Usage with Google Analytics](#)
- [Support Uploads](#)
- [Audit Reports](#)
- [EchoCenter Cache Behavior and Troubleshooting](#)

Monitor the System and Set Alerts

In this section:

- [User Roles and Monitoring](#)
- [Monitor Overall Processing Status](#)
- [Monitor Capture Processing Status](#)
- [Monitor Capture Status](#)
- [Monitor Processing Tasks](#)
- [Monitor Personal Capture Devices](#)
- [Receive Alerts](#)
- [Receive Email Notifiers](#)
- [View and Set Alerts](#)
- [Receive Technical Support](#)
- [View Log Files](#)

User Roles and Monitoring

If you implemented [delegated administration](#) , you created child organizations and user roles that are specific to the child organizations. You might have an Administrator or Scheduler for the child organizations. You might also have Academic Staff for the child organizations.

The tabs visible to you and the information in the tabs depends on your role and on your organization, as detailed in the table below.

If you are:	You:
The System Administrator	See every tab and all information on the tabs. As the System Administrator you are, by definition, associated with the parent organization
An Administrator for the parent organization	See every tab and, in each tab, information on tasks related to all organizations
An Administrator for a child organization	See every tab and, in each tab, information on tasks related to your organization

<p>A Scheduler (for either the parent or a child organization)</p>	<p>See only the Summary and Processing Tasks tabs</p> <p>See only events from your organization. You can see all events for your organization, even if you did not schedule them yourself.</p> <p>See the capture and section details links</p> <p>Cannot change priorities or delete jobs on the Processing tab</p>
<p>Academic Staff</p>	<p>Cannot see the Monitor tab</p>

Monitor Overall Processing Status

i What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

You can find statistics about the overall health of the EchoSystem Server (ESS) on the Summary page. Statistics include the number of system alerts, the status of each active device and media processor, and the system status. All monitoring activities on this tab are done at the system level, meaning you can monitor *all* capture operations on a given day.

You can also monitor the status of the audio, display, and video signals associated with each capture. A legend is listed next to the Source header of the page explains the meaning of each color for the signal status.

i Monitor a Single Capture

You can also monitor a single device-specific configuration or device-specific configuration or capture in the Ad Hoc interface. You may want to do this, for example, if you noticed a problem with a capture on the Summary page but could not resolve the problem without more detail. The Ad Hoc interface provides a way for you to get more information about the problem from the capture device itself. To reach the Ad Hoc interface, navigate to **Configuration > Devices**, then click the link in the device listing to reach the Device Details page. Click the IP address of the device. The Ad Hoc interface appears. Click the **Monitor** tab to watch a visual representation of the capture.

1. Navigate to **Monitor > Summary**. The Summary tab appears, as shown in the figure below.

System Alerts	Capture Stations	Processors	System Status
1 in last hour	4 registered	1 registered	7 active license(s) [expiration in 1 year, 11 months]
2 1 to 4 hours ago	0 out of contact	0 out of contact	2 storage volume(s) with disk space OK
7 4 to 12 hours ago	3 assigned to a room	0 jobs in queue	0 storage volume(s) with disk space LOW
0 12 to 24 hours ago	26 jobs completed today	0 jobs in process	0 storage volume(s) with disk space CRITICAL
0 1 to 5 days ago		25 jobs completed today	

2. Review the System Alerts, Capture Stations, Media Processors, and System Status information at the top of the page.
3. Click any number in the summary statistics to link to detailed information about it. For example, clicking the

number of registered capture stations opens the Devices page within the Configuration tab, where you can view, edit, upgrade, or retire those capture stations.

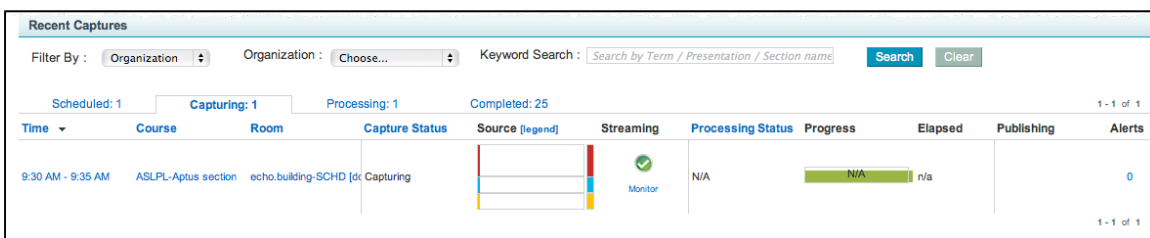
4. Review the System Status column to see the status of storage volumes.
 - Disk space is CRITICAL when a volume has 10 GB (10240 MB) or less of unused storage space
 - Disk space is LOW when a volume has 30 GB (30720 MB) or less of unused storage space

Monitor Capture Processing Status

i What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

1. Navigate to **Monitor > Summary**. The Summary tab appears.
2. View the Recent Captures area below the summary statistics, shown in the below figure.






All recent captures appear on one of four tabs: Scheduled, Capturing, Processing, or Completed, as defined in the table below.

Capture State	Definition
Scheduled	A capture that has been scheduled for later today.
Capturing	A lecture that is currently being captured.
Processing	A capture or media import that is being processed and packaged for use.
Completed	A capture that has completed processing and has been published to the selected publisher(s).

3. Find the capture you want to monitor. You can do that in either of the following ways.
 - Search for a capture that meets the search criteria you enter.
 - Browse the captures by state by clicking the relevant tab as described in the table above.
4. Review the status of the capture. The following table explains each element of the capture's status.

Status Element	Definition
Time	Start and end time of the capture
Course	The Course Identifier associated with a course in the system

Room	Physical location where the capture occurs									
Capture Status	<p>Displays the status of the capture of the lecture or external media import. Options are <i>Waiting</i>, <i>Uploading Files</i>, <i>Capturing</i>, <i>Succeeded</i>, <i>Failed</i>, and <i>Missed</i>.</p> <p>A capture that is <i>Failed</i> or <i>Missed</i> will be listed for seven days, then deleted.</p> <div style="border: 1px solid #4F81BD; padding: 10px; background-color: #D9E1F2;"> <p>i Missed Captures</p> <p>A missed capture is a scheduled capture that did not start capturing. A capture might be missed if there is not a device in the room, if the scheduled capture was not transmitted to the device in time for the capture to actually start, or a power outage occurred. The System Administrator can troubleshoot a missed capture by monitoring the device and confirming that it is licensed.</p> </div>									
Source	<p>Shows the status of the video, display, and audio signals associated with the capture. The following image explains the color coding of the signal status.</p> <div style="border: 1px solid #4F81BD; padding: 5px; background-color: #D9E1F2;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="background-color: #4F81BD; color: white; padding: 2px;">Audio Signal Present</td></tr> <tr><td style="background-color: #C00000; color: white; padding: 2px;">Audio Signal Not Present</td></tr> <tr><td style="background-color: #808080; color: white; padding: 2px;">Audio Signal Status Unknown</td></tr> <tr><td style="background-color: #00B0F0; color: white; padding: 2px;">Display Signal Present</td></tr> <tr><td style="background-color: #C00000; color: white; padding: 2px;">Display Signal Not Present</td></tr> <tr><td style="background-color: #808080; color: white; padding: 2px;">Display Signal Status Unknown</td></tr> <tr><td style="background-color: #FFD700; color: white; padding: 2px;">Video Signal Present</td></tr> <tr><td style="background-color: #C00000; color: white; padding: 2px;">Video Signal Not Present</td></tr> <tr><td style="background-color: #808080; color: white; padding: 2px;">Video Signal Status Unknown</td></tr> </table> </div> <div style="border: 1px solid #4F81BD; padding: 10px; background-color: #D9E1F2;"> <p>i The source signal graph only shows the status of the latest 60-minute block of the capture, in one-minute intervals.</p> </div>	Audio Signal Present	Audio Signal Not Present	Audio Signal Status Unknown	Display Signal Present	Display Signal Not Present	Display Signal Status Unknown	Video Signal Present	Video Signal Not Present	Video Signal Status Unknown
Audio Signal Present										
Audio Signal Not Present										
Audio Signal Status Unknown										
Display Signal Present										
Display Signal Not Present										
Display Signal Status Unknown										
Video Signal Present										
Video Signal Not Present										
Video Signal Status Unknown										
Streaming	<p>If a currently capturing item is a live webcast, the Streaming column provides an icon to indicate whether the expected input is streaming properly, and provides a Monitor link that allows you to open the student view of the webcast to see what is being broadcast in real-time.</p>									

Processing Status	<p>Displays the status of the processing of the capture, which involves packaging the capture into a form that a student, for example, can experience. Options are <i>Succeeded</i>, <i>Failed</i>, <i>License Expired</i>, or <i>Cancelled</i>.</p> <div style="border: 1px solid #4a7ebb; padding: 10px; background-color: #e6f2ff;"> <p>i About the Succeeded Status</p> <p>It is possible for a capture's processing status to display <i>Succeeded</i> even when the source signal graph shows areas of problems with a source signal. The processing status complements the source signal graph. <i>Succeeded</i> indicates that some signal was successfully captured. Problems in the source signal highlight portions of the captured media that may not have captured the desired content. For example, if the Audio Signal shows as Not Present, perhaps because the microphone was unplugged, the capture's processing status would show as <i>Succeeded</i> but the captured media may have an audio dropout.</p> </div>
Progress	Displays the percent complete of the processing step.
Elapsed	Time in hours, seconds, and minutes since processing began.
Publishing	If the capture is scheduled to be published, this field shows the name of each publisher (such as RSS or Email) and its status: <i>Success</i> (), <i>Pending</i> (<input style="vertical-align: middle;" type="checkbox"/>), <i>Retry</i> (), and <i>Failure</i> ().
Alerts	Number of times this capture has raised a publishing alert.

i Sort the list of captures

You can sort the list of captures for a selected capture state tab by clicking the column name.

Monitor Capture Status

i What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

View the status of all captures, including Echoes (lecture captures) and external media imports, on the Captures tab. Click any capture name to view its details.

1. Navigate to **Monitor > Captures**.

Title	Room	Capture Status	Course Section
How to do scheduling		Succeeded	ECHO100-100-002
temp		Succeeded	3.0-sanity-video-only
Echo360 training-Scheduling		Succeeded	ECHO100-100-001
3.0-sanity-testing (3.0-sanity-appliance) fall.2010	echo.revG	Succeeded	3.0-sanity-appliance

2. Find the Echo or media import. You have several choices for finding a capture. Options include the following.
 - Click the **All** tab and search for a capture by entering a term in the **Keyword Search** box and then clicking **Search**.
 - Click the **All** tab and filter the list of all captures by Date, Course, Presenter, or Room. Select one of these options from the **Filter** list, optionally enter a date, and then click **Search**.
 - Filter the list of all captures by clicking the **Scheduled**, **Capturing**, **Processing**, or **Completed** tab. Each tab corresponds to a capture state. A list of only those captures in the selected state appear.

i Sort the List of Captures

You can sort the list of captures for a selected capture state tab by clicking the column name.

3. Check the status of the capture by viewing the summary in the capture list. Click the capture name to view the [detailed status](#) about the capture, including its history as reported in the system log and full log.

View Capture Details

You can click the name of a capture in the list of captures on the Captures page and the Processing Tasks page to get details about that capture, as well as access to a full log of the capture's processing activity.

1. Navigate to **Monitor > Captures**.
2. Click the name of the capture in the Title column. The Capture Details page appears, as shown in the figure below.

[Captures](#) > Capture Details

Capture Details – 5 Min Captures (5min-111) Winter 2011

Capture Description	
ID :	2e30eeb9-1d4e-452f-8990-88c669d74688
Title :	5 Min Captures (5min-111) Winter 2011
Room :	Echo360: Dulles, Poland-1
Start Time :	2/16/11 10:21 AM
Presenter :	Darone, Ken
Presentation ID(s) :	
Section :	5 Min Captures (5min-111) Winter 2011
Status :	Not Started
Duration :	50 minutes

Related Tasks

Task ID	Task Created
<i>There are no processing tasks to display here.</i>	

[System Log](#)
[Full Log](#)
[Done](#)

The following table explains the information on this page.

Field	Description
ID	The unique identifier for the capture. Click this link to view the processing log in a new browser window.
Title	The capture title that the system or the user provided
Room	Complete location of capture including campus, building and room
Start Time	The time when the capture began
Presenter	The name(s) of the Presenter(s) that the user provided
Presentation ID(s)	The unique identifier of the processed echo. Click this link to view details about this echo.
Section	Term, Course and Section IDs
Status	This capture status
Duration	The length in time of the capture
Task ID	The unique identifier for the processing task
Task Created	The time when the processing task began

- For additional details about this capture, view one of the logs. Click the **System Log** button to view the details about the processing of this specific capture. Click the **Full Log** button to view the complete history of the capture from the time it was scheduled to the time publishing is complete. Both logs open in a new browser window.

i Sort the List of Captures

You can sort the list of captures for a selected capture state tab by clicking the column name.

Monitor Processing Tasks

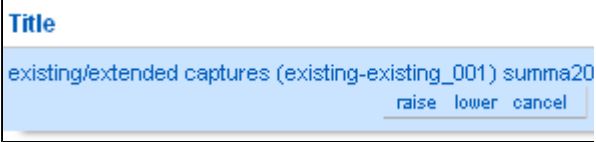
i What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

On the Processing page you can see the captures currently being processed and in the queue for processing. In addition to viewing the details of the task in either list, you can prioritize (raise or lower the priority in the list) or cancel the tasks for the ESS in the Queued to be Processed list.

Click any task to view its details, including its history as captured in the system log and full log.

- Navigate to **Monitor > Processing Tasks**. The Processing Tasks page appears. You can do the following on this page.
 - View information about each capture that is being processed or in the queue for processing. The following table explains this information.

Field	Description
Title	Name of the capture being processed or in the queue for processing
Processor	The MAC of the media processor assigned the processing task
Pri.	<p>Priority of the capture that is determined by the user. The default, which you may change, is <i>Normal</i>. Options are <i>Low</i>, <i>Normal</i>, and <i>High</i>. Note that you can raise or lower the priority of a capture by hovering your mouse over a capture to highlight it, then clicking raise or lower, as shown in the following figure.</p>  <p>Click cancel to cancel the processing of this task.</p>

Task Created	The date and time when the recording of the capture ended and processing began.
Next Retry	If the media processors are busy or the media files are uploading, the system enters a time in this field. The default is ASAP.
Capture Start	The date and time when the recording of the capture began.
Duration	The length of time of the capture that is in the queue to be processed.
Room	The room where the capture was recorded

- Click the capture title to view [details](#) about that capture.
- Change the priority or cancel the processing task. To do so, hover your mouse over a capture to highlight it. Click the **raise** button to increase the priority of the processing task, the **lower** button to decrease its priority. Click the **cancel** button to remove it from the list and either stop all processing tasks in progress or remove those tasks from the processing queue.

i Sort the List of Processing Tasks

You can sort the list of processing tasks by clicking the column name.

Monitor Personal Capture Devices

i What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

This tab lists computers with Personal Capture that have connected to the ESS.

Navigate to **Monitor > Personal Capture**. The Personal Capture Devices page appears as shown in the below figure.

Last IP Address	Platform	O/S Details	Software Version	Last Publish Request Time	Last Publish Request By
10.3.10.208	Windows 32-bit (x86)	Microsoft Windows 7 (bui 3.0.21431)		11/19/10 4:04 PM	vu, lam
10.3.10.164	Mac (Universal)	Version 10.6.4 (Build 10F13.0.21403)		11/18/10 12:01 PM	vu, lam

The following table explains the fields.

Field	Description
Last IP Address	The IP address of the computer that connected to the ESS. The Last Publish Request By field shows that the last request was made by Lam Vu, so this is probably the IP address of Lam Vu's personal computer.
Platform	The computing platform of the personal computer when it last connected to the ESS. This is probably the computing platform of Lam Vu's personal computer.
O/S Details	The operating system of the personal computer when it last connected to the ESS. This is probably the computing platform of Lam Vu's personal computer.
Software Version	The version of Personal Capture installed on the personal computer when it last connected to the ESS. This is probably the version of Personal Capture installed on Lam Vu's personal computer.
Last Publish Request Time	The date and time of the last publishing request received by the ESS from this personal computer.
Last Publish Request By	The person who made the most recent publish request from this personal computer.

Sort the List of Devices

You can sort the list of personal capture devices by clicking the column name.

Receive Alerts

What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

You can receive alerts that apply to ESS as a whole or to a specific capture. They show if something out of the ordinary has happened on your EchoSystem. For example, if the capture was not licensed or your ESS is out of disk space, you can receive an alert.

You can view a record of all of the alerts that your capture and processing tasks have triggered. This information helps you decide when you might need to reprocess an Echo.

- Navigate to **Monitor > Alerts**. The Alerts page appears. You can do the following on this page.
 - View the alerts that have been triggered by capture and processing tasks. The following table explains the available status information.

Field	Description
Alert Time	The time the alert was triggered
Triggering Event	The event that caused the alert to be sent
Time Relative to Trigger	How soon after the triggering event that the ESS sent the alert
Relates To	Name of the ESS capture or processing task that triggered the alert
No. of Notifications Sent	Number of emails sent to the ESS administrator about this alert

Receive Email Notifiers

What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

You can set up EchoSystem to send a notifier e-mail if a system alert occurs. Receiving these notifications helps you address potential problems quickly, thereby maintaining system up time. You can view these emails as well as add, edit, and delete them.

These notifier emails are sent through a SMTP server to all registered addresses for certain user roles (Scheduler, Academic Staff, Admin, A/V Technician, and Server Administrator).

View Email Notifiers

1. Navigate to **Monitor > Notifiers**. The Notifiers page appears.
2. View all email notifications that ESS has sent. The following table explains the information provided about these emails.

Field	Description
Name	Name of the email notifier
Description	Additional information about the email notifier
Notifier Type	How the notifier was sent. <i>Email</i> is currently the only option.

Add Email Notifiers

1. Navigate to **Monitor > Notifiers**. The Notifiers page appears.
2. Click **Add**. The Add Notifier page appears, as shown in the following figure.

The screenshot shows the 'Add Notifier' form in the EchoSystem 5.5 interface. The form is located under the 'Notifiers' menu item. It has a title 'Add Notifier' and a section 'Notifier Details'. The form contains three input fields: 'Name', 'Description', and 'Notifier Type'. The 'Notifier Type' field is a dropdown menu with 'Choose...' selected. At the bottom right of the form are 'Save' and 'Cancel' buttons.

3. Enter a name for the notifier.
4. Optionally, enter additional information about the notifier.
5. Select a notifier type from the list. *Email* is currently the only option.
6. Click **Save**.

Edit Email Notifiers

You may need to edit your email notifiers if you modify your email system; for example, by adding security to the system or changing your email server.

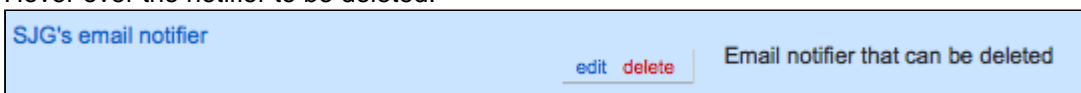
1. Navigate to **Monitor > Notifiers**. The Notifiers page appears.
2. Highlight a notifier. Two buttons appear.
3. Click **edit**.
4. Make changes to the notifier as desired.
5. Click **Save**.

Delete Email Notifiers

If the email notifier has sent an alert (even just once) it cannot be deleted.

Otherwise, follow these steps.

1. Navigate to **Monitor > Notifiers**.
2. Hover over the notifier to be deleted.



3. Click **delete**.
4. Confirm that you want to delete the notifier.
5. Notice the message confirming deletion at the top of the page.

View and Set Alerts

i What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

You can view all alerts configured and specify which alerts selected users should receive. When the administrator configures an alert, he or she subscribes to it on behalf of a selected user role. For example, when triggering events occur, an alert about them is sent only to people with selected roles such as A/V Technician, Server Administrator, and Academic Staff.

The notifier email simply contains the outgoing SMTP server information.

View Alert Settings

Navigate to **Monitor > Alert Settings**. The Alert Settings page appears, showing all alert settings for all user roles.

echo³⁶⁰

Echoes
Monitor
Schedule
Configuration
Reports

Summary
Captures
Processing Tasks
Personal Capture
Alerts
Notifiers
Alert Settings
Support
Help

Alert Settings

Role Subscriptions

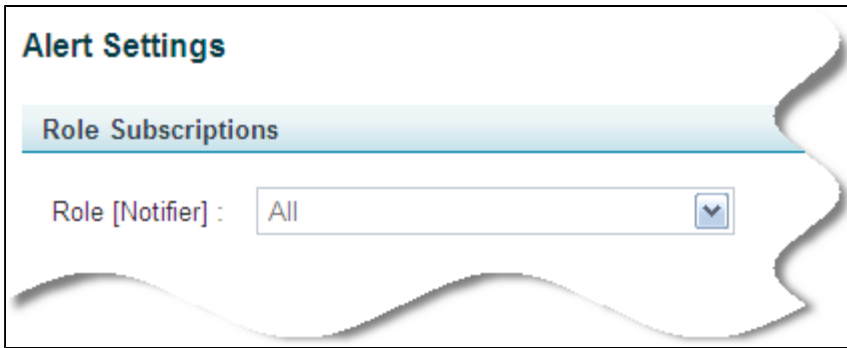
Role [Notifier] :

Alert Type	Subscribing Roles
Capture - Device overdue [1 hour before]	Server Administrator [Email Notifier]
Capture - Device overdue [1 day before]	Server Administrator [Email Notifier]
Capture - No device in room [1 hour before]	Server Administrator [Email Notifier]
Capture - No device in room [1 day before]	Server Administrator [Email Notifier]
Capture - No device in room [1 week before]	Server Administrator [Email Notifier]
Capture - No device in room [1 month before]	Server Administrator [Email Notifier]
Capture - Product not supported [1 hour before]	Server Administrator [Email Notifier]
Capture - Product not supported [1 day before]	Server Administrator [Email Notifier]
Capture - Product not supported [1 week before]	Server Administrator [Email Notifier]
Capture - Product not supported [1 month before]	Server Administrator [Email Notifier]
Capture - Room not licensed [1 hour before]	Server Administrator [Email Notifier]
Capture - Room not licensed [1 day before]	Server Administrator [Email Notifier]
Capture - Bad File Upload	Admin [Email Notifier]; Presenter [Email Notifier]; Server Administrator [Email Notifier]
Capture - Error	Admin [Email Notifier]; Presenter [Email Notifier]; Server Administrator [Email Notifier]
Capture - Input Missing [5 minutes after]	A/V Technician [Email Notifier]; Presenter [Email Notifier]
Capture - Input Restored	A/V Technician [Email Notifier]; Admin [Email Notifier]
Capture - Missed	Server Administrator [Email Notifier]
Capture - New Ad Hoc Available For Processing	Admin [Email Notifier]
Capture - Stopped	Presenter [Email Notifier]
Device Clock - Out of Sync	Server Administrator [Email Notifier]
Device Clock - Sync Restored	Presenter [Email Notifier]; Server Administrator [Email Notifier]
Device Failure - Reboot Required	Presenter [Email Notifier]; Server Administrator [Email Notifier]
Device Failure - Reboot Successful	Server Administrator [Email Notifier]
Device - Overdue [10 minutes after]	A/V Technician [Email Notifier]
Device - Overdue [1 hour after]	A/V Technician [Email Notifier]
Device - Overdue [8 hours after]	A/V Technician [Email Notifier]; Admin [Email Notifier]
Device - Overdue [1 day after]	A/V Technician [Email Notifier]
Disk Space Status Changed	Server Administrator [Email Notifier]
ESS Emergency Restart	Admin [Email Notifier]; Server Administrator [Email Notifier]
ESS Emergency Shutdown	Server Administrator [Email Notifier]
License update - Restart Wowza	Server Administrator [Email Notifier]
License - Expires [1 day before]	A/V Technician [Email Notifier]
License - Expires [1 week before]	A/V Technician [Email Notifier]
License - Expires [2 weeks before]	A/V Technician [Email Notifier]; Presenter [Email Notifier]
License - Expires [1 month before]	A/V Technician [Email Notifier]; Admin [Email Notifier]
Presentation - Publish Failed	Server Administrator [Email Notifier]
Processor - Bad File Upload	Server Administrator [Email Notifier]
Processor - Job Failed	Admin [Email Notifier]; Presenter [Email Notifier]; Server Administrator [Email Notifier]
System Clock - Out of Sync	Presenter [Email Notifier]; Server Administrator [Email Notifier]
System Clock - Sync Restored	Server Administrator [Email Notifier]

EchoSystem v. 3.0.2010-11-17.1*
ess@echo360.com | Logout

Set Alerts to Receive

1. Navigate to **Monitor > Alert Settings**. The Alert Settings page appears, showing all alert settings for all user roles.
2. From the Role list, select the user role to which you want to send a new alert.




3. Select one or more triggering events for which you want to generate an alert to people with this user role.
4. Click **Save**.

Receive Technical Support

i What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

When you need support, navigate to **Monitor > Support** and share the details there about your ESS to support personnel. You can even upload this information directly to support personnel by clicking the **Upload** button at the top of the page. Click the logs at the bottom of the page to get details about all recent capture and processing tasks.



Echoes
Monitor
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Alert Settings
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Help

Support

Upload to Support

You can upload troubleshooting information for this server to Echo360 support by clicking the upload button below. Information was last uploaded to support **11/20/10 11:23 PM**

Upload

Recent Upload Events

11/20/10 11:23 PM	
11/20/10 11:23 PM	

System Technical Information

Current System Time :	11/21/10 12:13:03 AM
Last Started :	11/19/10 2:03:11 PM (1 day, 10 hours)
Last Database Schema Update :	11/17/10 4:17:47 PM (3.0.7.21551)
System Time Zone :	America/New_York (-05:00)
System Locale :	English (United States)
Installed Notifier Plugins :	Email;
Installed Publisher Plugins :	Angel Learning System; Blackboard Learning System (Vista 4 and CE 6); Blackboard Learning System Enterprise (6-9); Closed Captioning and Transcript; Echo360 Search Indexing; Email Publisher; Moodle Learning System; RSS Feeds; TWEN; iTunes U;
Installed Security Plugins :	Allow All; LDAP Security; Seamless Only;
All Devices Current? :	Yes

Software Versions

EchoSystem :	3.0.2010-11-17.1*
Server :	3.0.7.21551
Device :	3.0.21451
Operating System :	Linux, 2.6.18-194.17.1.el5, amd64
Java Runtime Environment :	Java(TM) SE Runtime Environment, 1.6.0_16-b01
Java Virtual Machine :	Java HotSpot(TM) 64-Bit Server VM, 14.2-b01
Database :	Apache Derby v.10.5 [10.5.3.0 - (802917)]

Installer Versions

Mac Personal Capture :	3.0.21403
Windows Personal Capture :	3.0.21431
Linux Device :	3.0.21545*
Mac Device :	3.0.21545
Windows Device :	3.0.21545*

Log Files

Log Files : [ess.20101121.log](#)
[ess.20101120.log](#)
[ess.20101119.log](#)
[ess.20101118.log](#)

```

ess.20101117.log
ess-installer.log
request.20101121.log
request.20101120.log
request.20101119.log
request.20101118.log
request.20101117.log
wrapper.20101119.log
wrapper.20101117.log
jetty.20101117.log
jetty.20101118.log
jetty.20101119.log
jetty.20101120.log

```

EchoSystem v. 3.0.2010-11-17.1* ess@echo360.com | Logout

View Log Files

What You See Depends on Who You Are

Your user role and organizational affiliation affect the information shown to you, as explained in [User Roles and Monitoring](#).

Overview

Log files (except for the **ess-installer.log**) show detailed daily operations by component. You might be asked to send a log file to Technical Support or to look at one while talking with a Technical Support engineer.

- The **ess log files** (such as **ess.20111020.log**) show all server-side activity required to make a capture available. Current ESS tasks are shown as active. This file is often used when diagnosing publisher issues.
 - If you are diagnosing issues with a Blackboard integration, consult this KB (Knowledge Base) article ([Diagnosing Blackboard Learn 9 publisher failures](#)) for a discussion of log file messages and what they mean.

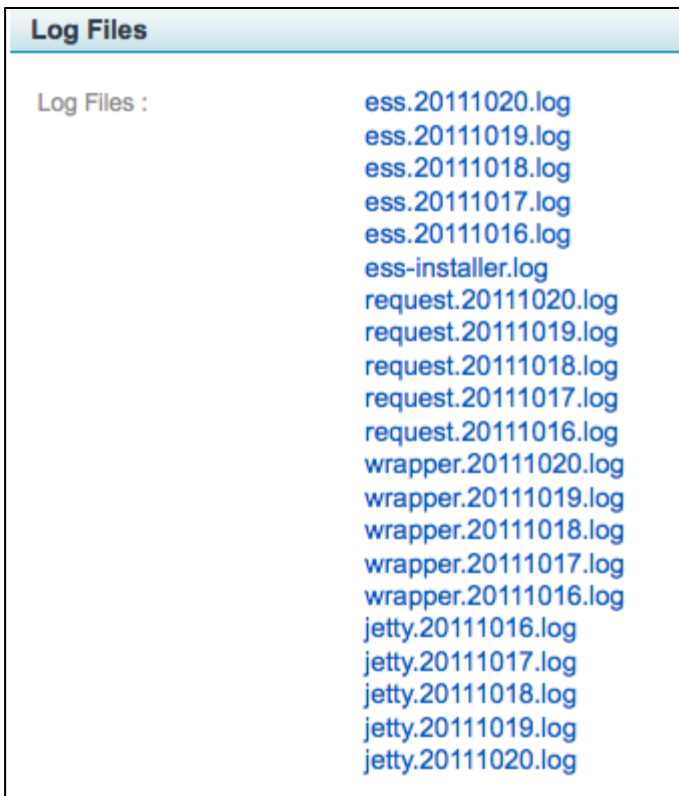
Accessing the Knowledge Base

You will need a customer portal login to access the Knowledge Base. Contact [Technical Support](#) if you need a login.

- The **request log files** (such as **request.20111020.log**) show every http request being made to the web server. These are typically called "web server access logs". You might view these files with Echo360 Technical Support to discover spurious requests from the server.
- The **wrapper log files** (such as **wrapper.20111020.log**) show interaction between the ESS and operating system (Windows, Linux, Mac OS). You might view these files with Echo360 Technical Support when the Java virtual machine (JVS) fails to start.
- The **jetty log files** (such as **jetty.20111016.log**) show errors specific to the web server (the Jetty server) as opposed to those that relate to the ESS. You might view these files with Echo360 Technical Support when either the ESS or EchoCenter fails to start.

Procedure

1. Navigate to **Monitor > Support**.
2. Scroll down to the **Log Files** section of the page.



- Click on the desired log file. The file opens in a new tab. The example below shows an ESS log file.

```

00:00:00.062 INFO [eduler_Worker-3] com.echo360.ess.util.impl.ApplicationInfoUtilImpl (line 247 ) EchoSystem v4.0.2011
00:00:00.063 INFO [eduler_Worker-3] com.echo360.ess.util.impl.ApplicationInfoUtilImpl (line 250 ) EchoSystem Server v4
00:00:00.063 INFO [eduler_Worker-3] com.echo360.ess.util.impl.ApplicationInfoUtilImpl (line 253 ) current time: 2011-1
00:00:00.063 INFO [eduler_Worker-3] com.echo360.ess.util.impl.ApplicationInfoUtilImpl (line 260 ) default time zone: A
00:00:00.064 INFO [eduler_Worker-3] com.echo360.ess.util.impl.ApplicationInfoUtilImpl (line 273 ) Java HotSpot(TM) 64-
00:00:00.064 INFO [eduler_Worker-3] com.echo360.ess.tx.impl.AbstractDatabaseUtil (line 107 ) database: Microsoft
00:16:26.949 INFO [cutor-default-2] c.echo360.ess.service.impl.PresentationServiceImpl (line 275 ) beginning evaluation
00:16:27.032 INFO [cutor-default-2] c.echo360.ess.service.impl.PresentationServiceImpl (line 275 ) evaluating random ba
00:16:27.076 INFO [cutor-default-2] c.echo360.ess.service.impl.PresentationServiceImpl (line 284 ) none of the presenta
00:16:27.076 INFO [cutor-default-2] com.echo360.ess.job.ExpiredMediaFileDelete (line 33 ) finished evaluation
00:17:21.758 INFO [cutor-default-2] com.echo360.ess.job.CleanupLogUploadOrphans (line 74 ) starting cleanup of
00:17:21.764 INFO [cutor-default-2] com.echo360.ess.job.CleanupLogUploadOrphans (line 76 ) completed cleanup of
00:17:22.564 INFO [cutor-default-5] com.echo360.ess.job.ExpiredExternalMediaDelete (line 30 ) beginning evaluation
00:17:22.565 INFO [cutor-default-5] com.echo360.ess.job.ExpiredExternalMediaDelete (line 38 ) finished evaluation
00:17:32.037 INFO [cutor-default-5] com.echo360.ess.job.UpdateCaptureStatusJob (line 60 ) found 16 capture(s)
01:10:07.563 INFO [cutor-default-2] com.echo360.ess.job.SectionXmlResync (line 43 ) beginning resync of
01:10:08.894 INFO [cutor-default-2] com.echo360.ess.job.SectionXmlResync (line 77 ) finished resync of 1
01:10:14.919 INFO [cutor-default-6] com.echo360.ess.job.SectionXmlResync (line 43 ) beginning resync of
01:10:15.965 INFO [cutor-default-6] com.echo360.ess.job.SectionXmlResync (line 77 ) finished resync of 1
01:14:31.288 INFO [cutor-default-5] com.echo360.ess.job.SectionXmlResync (line 43 ) beginning resync of 1
01:14:32.393 INFO [cutor-default-5] com.echo360.ess.job.SectionXmlResync (line 77 ) finished resync of 1
01:14:38.694 INFO [cutor-default-3] com.echo360.ess.job.SectionXmlResync (line 43 ) beginning resync of
01:14:39.827 INFO [cutor-default-3] com.echo360.ess.job.SectionXmlResync (line 77 ) finished resync of 1
01:16:27.116 INFO [cutor-default-1] com.echo360.ess.job.ExpiredMediaFileDelete (line 29 ) beginning evaluation
01:16:27.178 INFO [cutor-default-1] c.echo360.ess.service.impl.PresentationServiceImpl (line 275 ) evaluating random ba
01:16:27.227 INFO [cutor-default-1] c.echo360.ess.service.impl.PresentationServiceImpl (line 284 ) none of the presenta
01:16:27.228 INFO [cutor-default-1] com.echo360.ess.job.ExpiredMediaFileDelete (line 33 ) finished evaluation
01:17:22.594 INFO [cutor-default-3] com.echo360.ess.job.ExpiredExternalMediaDelete (line 30 ) beginning evaluation
01:17:22.595 INFO [cutor-default-3] com.echo360.ess.job.ExpiredExternalMediaDelete (line 38 ) finished evaluation
01:17:32.254 INFO [cutor-default-2] com.echo360.ess.job.UpdateCaptureStatusJob (line 60 ) found 16 capture(s)
01:47:21.794 INFO [cutor-default-1] com.echo360.ess.job.CleanupLogUploadOrphans (line 74 ) starting cleanup of
01:47:21.799 INFO [cutor-default-1] com.echo360.ess.job.CleanupLogUploadOrphans (line 76 ) completed cleanup of
01:53:22.076 WARN [768-plugin-test] com.echo360.ess.publish.EmailPlugin (line 100 ) MessagingException w
javax.mail.MessagingException: Unknown SMTP host: https://localhost
    at com.sun.mail.smtp.SMTPTransport.openServer(SMTPTransport.java:1280) ~[mail-1.4.jar:1.4]
    at com.sun.mail.smtp.SMTPTransport.protocolConnect(SMTPTransport.java:370) ~[mail-1.4.jar:1.4]
    at javax.mail.Service.connect(Service.java:275) ~[mail-1.4.jar:1.4]
    at com.echo360.ess.publish.EmailPlugin.getConnectedTransport(EmailPlugin.java:149) ~[classes/:4.0.18-SNAPSHOT]

```

Manage System Indexes

In this section:

- [Overview](#)
- [Procedure](#)

Overview

The system indexes are used when you search or filter lists of items on an ESS page, such as the Courses page shown below:

Courses

Search

Organization : Term : Person :

You might be asked to regenerate a system index while talking with a Technical Support engineer.

The table below shows the index to regenerate for particular types of content.

Regenerate this index	To re-index this content and keyword search for the page
AdHocCapture	Ad hoc captures listed on the Echoes > Ad Hoc Captures page.
Capture	Captures listed on the Monitor > Captures page.
Course	Courses listed on the Schedule > Courses page. The Course search parameter appears on the Schedules > Schedule page.
Person	Users listed on the Configuration > Users page. The Person search parameter appears on the Schedules > Courses page.
Presentation	Echoes listed on the Echoes > Echoes page.
Room	Rooms listed on the Configuration > Rooms page. The Room search parameter appears on the Configuration > Devices page.
Schedule Rule	Schedules listed on the Schedule > Schedules page.

Procedure

1. Navigate to **System > System Indexes**.

System Indexes

Index Name	Location	
AdHocCapture	C:\Program Files\Echo360\Server\db\index\adhoc	Re-Index on Next ESS Restart
Capture	C:\Program Files\Echo360\Server\db\index\capture	Re-Index on Next ESS Restart
Course	C:\Program Files\Echo360\Server\db\index\course	Re-Index on Next ESS Restart
Person	C:\Program Files\Echo360\Server\db\index\person	Re-Index on Next ESS Restart
Presentation	C:\Program Files\Echo360\Server\db\index\presentation	Re-Index on Next ESS Restart
Room	C:\Program Files\Echo360\Server\db\index\room	Re-Index on Next ESS Restart
Schedule Rule	C:\Program Files\Echo360\Server\db\index\schedulerule	Re-Index on Next ESS Restart

[Re-Index All on Next ESS Restart](#)

2. Do one of the following:
 - Click on the button next to the specific index you want to regenerate. The [table in the Overview](#) shows which index to regenerate for specific search parameters.
 - Click on the **Reindex All on Next ESS Restart** button at the bottom of the page to regenerate every index.
3. [Restart the ESS](#) at a time that minimizes disruption and delay.

Student Usage Reports

In this section:

- [Overview](#)
- [Summary Report](#)
- [Detailed Reports](#)

Overview

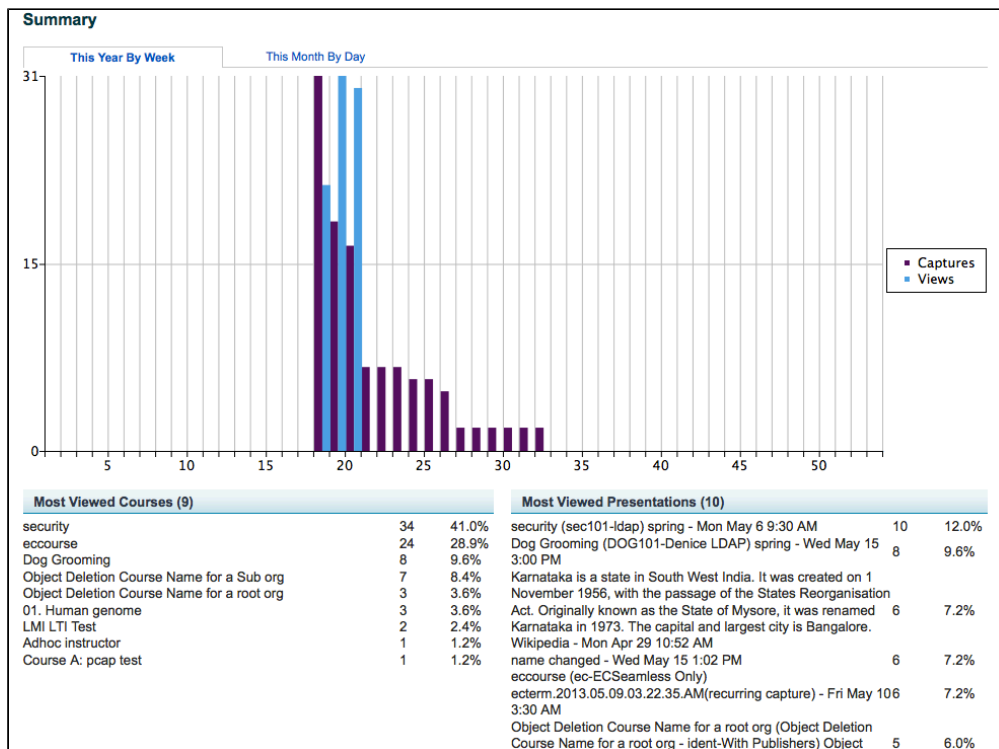


Who can do this?

- System Administrator
- Admin of Parent Organization
- Scheduler of Parent Organization

The summary report and detailed reports show student usage of EchoSystem content.

- [Summary reports](#) are automatically generated. As the example shown below illustrates, they show:
 - A chart of week-by-week usage for the year ("This Year By Week") or day-by-day usage for the current month ("This Month By Day")
 - A list of frequently accessed courses and presentations



- [Detailed reports](#) are generated on request. Usage data is exported to a .pdf file.

i What is a "View"?

The reports show "most viewed courses", "most viewed presentations" and other statistics. But what user action constitutes a "view"?

A view is recorded whenever a user visits a URL to view a product. If you authenticate or authorize users before allowing access to the URL, the user must be authenticated or authorized before the view is recorded.

Summary Report

To navigate to the summary report, select **Reports > Summary**.

The first tab, **This Year By Week**, plots captures and views for each week of the year on a histogram. At the bottom of the page, the Most Viewed Courses and Most Viewed Presentations are ranked according to the most frequently accessed content for the year. Percentages are figured against total views.

The second tab, **This Month By Day**, plots the day-by-day usage for the current month. At the bottom of the page, the Most Viewed Courses and Most Viewed Presentations are ranked according to the most frequently accessed content for the month. Percentages are figured against total views.

Detailed Reports

To navigate to the summary report, select **Reports > Details Reports**.

The detailed reports are created when you specify these parameters:

- Report type:
 - **Views by Presentation**, showing the presentations ranked from most frequently viewed to least, and including number of hits and percentage of total viewing traffic
 - **Views by Product**, showing the types of recordings (that is, Podcast vs. Vodcast vs. EchoPlayer) that are being viewed, and including number of hits and percentage of total viewing traffic
 - **Quota by Section**, showing the storage (in MB) used by the section and the section limit
 - **Views by Time of Day**, showing 24 one-hour segments and the number of views within that segment, both as an aggregate number of views and as percentage of total views
 - **Views by Week of Year**, showing the number of views occurring within each week of the calendar year, both as an aggregate number and as a percentage of total views.

Detailed Reports

Report Type

Report Type :

Report Selection

Filter By :

Report Output Format

Report Output Format :

- Date range.
- Output format. The report is a .pdf file.

A sample report is shown below.



Track ESS Usage with Google Analytics

In this section:

- [Overview](#)
- [Get Started with Google Analytics](#)
- [Turn Off Google Analytics](#)

Overview

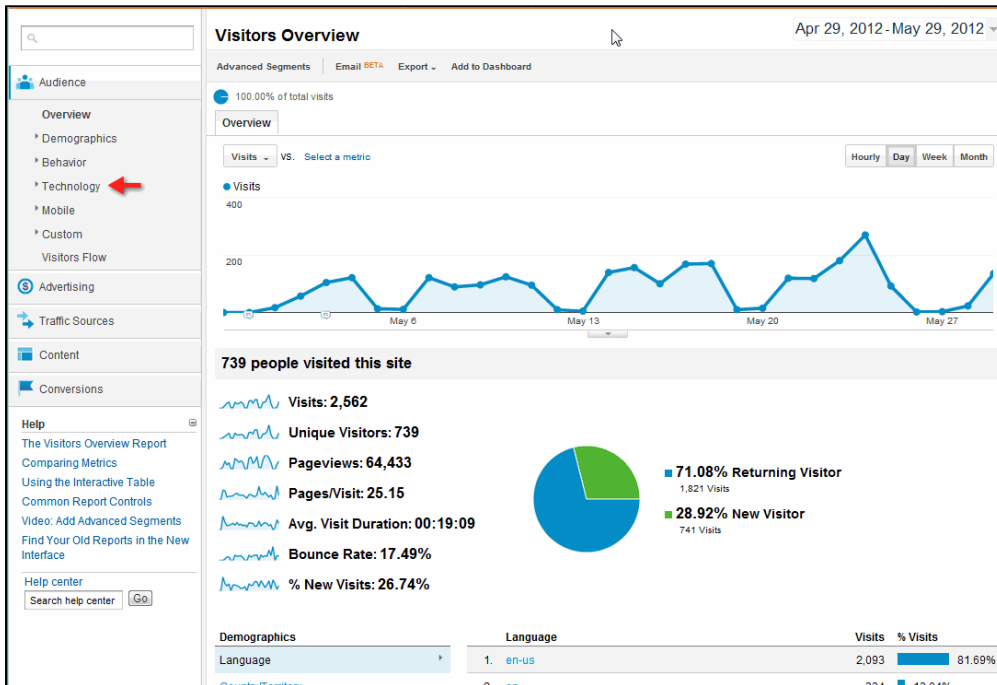
With EchoSystem 5.1, Echo360 began using Google Analytics (GA) to identify browser composition and usage across deployed EchoSystems. You, as the System Administrator, can also use a GA Tracking ID to generate reports about your school's ESS usage.

What is Google Analytics?

Google Analytics (GA) is a service that allows you to track views of web pages through embedded JavaScript calls.

As each page is rendered in a browser, a call is made to GA. The system correlates the views and inspects the browser user agent string to determine browser characteristics (see <http://www.useragentstring.com> for details on the user agent string contents).

GA also provides analytic tools for aggregating and inspecting the data. The current GA dashboard, which gives an overview of the data collected, is shown below.



Example - GA at Echo360

At Echo360 we need to know the specific browsers that customers prefer. We drilled into the **Technology** parameter (marked with a red arrow in the figure above) and got the analysis shown below. We saw that Firefox had the greatest penetration and were able to drill down further to see which versions of Firefox were used.

i Example For Illustration Purposes Only

Please do not draw any conclusions from this example.



For further details on GA, see <http://www.google.com/analytics> or follow the blog at <http://analytics.blogspot.com/>.

Get Started with Google Analytics

Using GA to track ESS page usage requires these phases:

1. [Get the GA Tracking ID](#)
2. Tell the EchoSystem Server (ESS) to [include the Tracking ID on each ESS page](#)

Phase 1 - Get the Tracking ID

If you already have a GA account and a Tracking ID, skip this phase.

1. Create a Google account. Visit <http://www.google.com> and <https://accounts.google.com>.
2. Visit <http://www.google.com/analytics> and log in.
3. Click **Admin**.
4. Click **+ New Account**.
5. Complete the Account Administration page.
 - a. Under "What would you like to track?" select **Web Site**. This means that all your pages will be tracked, even if your content is hosted separately.
 - b. Complete the rest of the fields.
 - c. Disable both sharing settings.

Google Analytics
Account Administration

Accounts

What would you like to track?

Web Site **App**

Track web sites whose HTML you control | Track interactions within Android and iOS apps

Setting up your web property

Website Name
My New Web Site

Web Site URL
http://
Example: http://www.mywebsite.com

Industry Category
Select One

Reporting Time Zone
United States | (GMT-08:00) Pacific Time

Setting up your account

Account Name
Accounts are the top-most level of organization and contain one or more tracking IDs.
My New Account Name

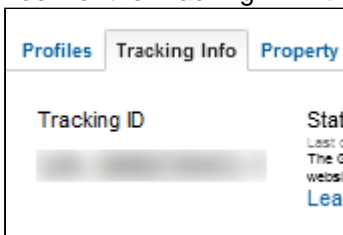
Data Sharing Settings

With other Google products only *optional*
Enable enhanced ad features and an improved experience with AdWords, AdSense and other Google products by sharing your website's Google Analytics data with other Google services. Only Google services (no third parties) will be able to access your data. [Show example](#)

Anonymously with Google and others *optional*
Enable benchmarking by sharing your website data in an anonymous form. Google will remove all identifiable information about your website, combine the data with hundreds of other anonymous sites in comparable industries and report aggregate trends in the benchmarking service. [Show example](#)

Get Tracking ID Cancel

6. Click **Get Tracking ID**.
7. Look for the Tracking ID in the format UA-#####-# at the top of the page.



8. Make a note of the Tracking ID. You will use it soon.
9. Navigate back to your account home page. Notice that the new account is listed.

Phase 2 - Include the Tracking ID on Each ESS Page

Follow these steps.

1. In `{ESS_HOME}/etc/analytics/`, create a file called `push-customer.js`.
2. Include this **exact** call. This is the code that will be called to the GA service.

```

_gaq.push(
  ['b._setAccount', 'UA-#####-#'],
  ['b._setDomainName', 'none'],
  ['b._setAllowLinker', true],
  ['b._trackPageview']
);

```

3. Replace **UA-#####-#** with your GA Tracking ID.
4. Restart the ESS.
5. Visit <http://www.google.com/analytics> to see the results.
 - Results are not immediately posted.
 - Allow some time.

Turn Off Google Analytics

The ESS uses a series of script files to control GA . If you do not want GA to collect data, you can prevent that script from running.

Follow these steps:

1. Create an empty file: **{ESS_HOME}/etc/analytics/declare-queue.js**.
2. Restart the ESS.

Support Uploads

In this section:

- [Upload Process](#)
- [Logging](#)
- [Cached Files](#)
- [Other](#)

Upload Process

1. Immediately after the user presses the button, an empty "transfer.started" file is uploaded. If this file cannot be successfully uploaded, no support upload will be performed, but the files that would be uploaded are still created in the staging area. If the user presses the button and the folder and file are not created within a few seconds you know the upload will not work.
2. The upload is now broken into several files instead of just one big one. Each file is created in a staging area and regardless of whether they can actually be uploaded, the files are created and remain in the staging area until the next support upload is performed.
3. The staging area is under **<ESS_HOME>/tmp/.supportUpload**. Whenever a new support upload is initiated, the staging area is cleaned out prior to new staged support upload files being created there.
4. A directory is created in the staging area that is named the same as the directory where files are uploaded on **sftpupload.echo360.com**.
5. The upload files are created one by one and are uploaded as they are created:
 - config.zip contains the contents of the **<ESS_HOME>/etc** dir and the wowza configuration dir (if applicable).
 - sysInfo.zip contains various system information, such as Java system properties, environment

variables, a summary of the relevant file systems, and a file that shows the number of records in each of the database tables.

- Zip files are created that contain log files covering three day periods. The first, logs_00-03_daysAgo.zip, contains the log files with a last modified time from now until three days ago. The second, logs_03-06_daysAgo.zip, contains the log files with a last modified time from three to six days ago. Zip files are created and named following this pattern. The oldest file, logs-27-30_daysAgo.zip, contains the log files with a last modified time from 27 to 30 days ago.
 - database.zip contains the Derby database (if applicable).
6. The log file archives will only be produced if there are logs from those days. Also, there is a 200 MB limit, so as soon as the cumulative size of the log archives exceeds that limit, no more will be produced.
 7. Files (like log files, files in etc, database files) now retain their last modified date when extracted from the zip.
 8. If all of the files upload successfully, an empty "transfer.complete" file is uploaded as before.
 9. No longer allow multiple overlapping simultaneous uploads at the same time. Give user a message that one is already in progress if they keep hitting the button before the first one is finished.

Logging

1. There is a new "jetty.log" file that logs some jetty-specific stuff, especially during startup. This will be very useful troubleshooting cases where the EchoSystem Server (ESS) will not start up correctly. It should no longer be necessary to start the ESS from the command prompt in these cases. In fact, most logging is no longer directed to stdout/stderr so will not appear in the console when starting from a command prompt.
2. wrapper.log is now capturing stdout/stderr from the java virtual machine. This will allow it to capture thread dumps and other debugging information that can be provided by the JVM.
3. The logging configuration file (<ESS_HOME>/etc/logging.cfg.xml) can now be changed on a running system and the changes will be picked up without restarting the ESS
4. Logging should now resume soon after correcting a problem that prevents logging, such as interruption of an NFS share or a permissions issue. Until now, when logging stopped due to such an issue, an ESS restarted was required to get it going again.
5. The request.log file entries are now in the local time zone of the ESS machine like all of the other logs, instead of GMT. The naming pattern of the request log files is now consistent with the other logs.
6. The active log files are now named using the same pattern as the rolled-over log files, so the name will no longer change when it gets rolled over. This was previously the case with the wrapper log file and now applies to all of the log files.

Cached Files

1. The <ESS_HOME>/cache dir, where the device software files are cached, has been moved to <ESS_HOME>/tmp/.deviceFileCache.
2. The place where the device software jar file is unzipped (staged) was previously in a temporary folder under the system temp dir, but has now been moved to <ESS_HOME>/tmp/.deviceFileStaging.
3. The place where plugins are staged during run time was previously in a temporary folder under the system temp dir, but has now been moved to <ESS_HOME>/tmp/.deviceFileStaging

Other

1. The name of the executable jar for command line utilities has changed from "ess-lib-util.jar" to "ess-command.jar". For example, to run a database script, you will now do this:
2. <ESS_HOME>/etc/wrapper.conf no longer is required to have numbered entries be in strict numerical order without gaps. In the past, when adding Java Additional Parameters, for instance, you had to number them consecutively. This is no longer needed and the default wrapper.conf now has these parameters organized into logical groups.
3. JConsole is now included with the Java Runtime Environment installed with the ESS and the MBean support for monitoring Jetty is configured by default. New installations as of 2.6 include the lines needed to enable monitoring with JConsole commented out in the Java Additional Parameters section of jre/bin/java -Xmx1024m -jar lib/ess-command.jar ExecuteScript --script somescript.sql <ESS_HOME>/etc/wrapper.conf.

For new installations, monitoring with JConsole merely requires uncommenting three lines from wrapper.conf, restarting the ESS, and starting JConsole (<ESS_HOME>/bin/jconsole).

Audit Reports

In this section:

- [Overview](#)

Overview

Audit Reports are automatically generated and list items that are added to or deleted from the system.

To view the audit report, select **Reports > Audit Report**.

For a detailed review of the audit report information, click **Export** to export the Audit Report to a CSV file. This allows you to open the report in a spreadsheet program, and perform sorting and filtering of the reported data.

A sample Audit Report is shown in the below figure.

Time	Username	Action	Type	Description
7/16/13 2:46 PM	essadmin@institution.edu	Added	Schedule	dz-qaroomCS101 (dz-qaroomCS101-section001) dan qa DeptA summer - dan zhang instructor - DZ_QA_LAB_CCAP
7/16/13 2:45 PM	essadmin@institution.edu	Added	Section	section001 - dz-qaroomCS101 - dan qa DeptA summer
7/16/13 2:44 PM	essadmin@institution.edu	Added	Course	dz-qaroomCS101 (dz-qaroomCS101)
7/16/13 2:11 PM	essadmin@institution.edu	Added	Schedule	fpga_EP_Display.very_low.SC.low_14.53.00 [10m_11.24] - DVI-D 1440x900 - ns.instructor - QA_LAB_SCHD_3
7/16/13 2:11 PM	essadmin@institution.edu	Added	Schedule	fpga_EP_Display.medium.SC.medium_14.20.00 [10m_11.24] - DVI-D 1440x900 - ns.instructor - QA_LAB_SCHD_3
7/16/13 2:10 PM	essadmin@institution.edu	Added	Schedule	fpga_EP_Display.low.SC.low_15.04.00 [10m_11.24] - DVI-D 1440x900 - ns.instructor - QA_LAB_SCHD_3
7/16/13 2:10 PM	essadmin@institution.edu	Added	Schedule	fpga_EP_Display.high.SC.medium_14.31.00 [10m_11.24] - DVI-D 1440x900 - ns.instructor - QA_LAB_SCHD_3
7/16/13 2:10 PM	essadmin@institution.edu	Added	Schedule	fpga_EP_Display.extreme.SC.medium_14.42.00 [10m_11.24] - DVI-D 1440x900 - ns.instructor - QA_LAB_SCHD_3
7/16/13 2:08 PM	essadmin@institution.edu	Added	Section	5297 - SCHD_FPGA - newton
7/16/13 2:08 PM	essadmin@institution.edu	Added	Course	SCHD_FPGA (SCALER)
7/16/13 1:16 PM	essadmin@institution.edu	Deleted	Presentation	SCHD_Regression (SCHDR-GB36664R) newton [Podcast Audio.Low]
7/16/13 12:56 PM	essadmin@institution.edu	Added	Schedule	SCHD_Regression (SCHDR-GB36664R) newton [Podcast Audio.Low] - ns.instructor - QA_LAB_SCHD_3
7/16/13 12:50 PM	essadmin@institution.edu	Added	Schedule	dz CS 101 (dz CS101-8AM section by instructor) dan qa DeptA summer - dan zhang instructor - DZ_QA_local
7/16/13 12:49 PM	essadmin@institution.edu	Added	Section	8AM section by instructor - dz CS 101 - dan qa DeptA summer
7/16/13 12:48 PM	essadmin@institution.edu	Added	Course	dz CS 101 (dz CS101)
7/16/13 12:48 PM	essadmin@institution.edu	Added	Term	dan qa DeptA summer
7/16/13 12:47 PM	essadmin@institution.edu	Added	Person	dan zhang instructor <dzhanginstructor@echo360.com> [dzin]
7/16/13 12:41 PM	essadmin@institution.edu	Added	Device Configuration	custom: 28e4ad8b-7d94-40b2-ba1e-b51f02adb80c
7/16/13 12:38 PM	essadmin@institution.edu	Added	Device	device-type-software-capture e0-06-e6-45-15-57
7/16/13 12:34 PM	essadmin@institution.edu	Added	Device Configuration	custom: 241481f6-e00a-4ff8-910a-2fa2971b05ae

View: 20 | 521 - 540 of 598

Export

The information provided by an audit report is detailed in the below table.

Column Name	Description
Time	Provides and time/date stamp for when the listed action occurred.
Username	Lists the email address of the logged in user who performed the action.
Action	Shows whether the item was Added or Deleted from the ESS.

Type	<p>Lists the type of item that was either added or deleted from the ESS, and can include the following items:</p> <ul style="list-style-type: none"> • Schedule • Section • Course • Term • User (Type=Person) • Device • Device Configuration • Security Module • Organization • Echo (Type=Presentation) NOTE: Only Deleted Echoes are listed, since creation is not done through direct interaction with the ESS interface.
Description	<p>Provides detailed information about the item, and includes the following information for the noted item type:</p> <ul style="list-style-type: none"> • Schedule: <schedule name> <room name> <presenter name> <summary from schedule list> • Section: <section name> - <course name> - <term name> • Course: <course name> • Term: <term name> • User (Type=Person): <display name> <email address> <username> • Device: <device type> <MAC Address> • Device Configuration: <device configuration name> • Security Module: <security module name> • Organization: <organization name> - <org full name> • Echo (Type = Presentation): <echo name> <device name> <product group>

EchoCenter Cache Behavior and Troubleshooting

In this section:

- [EchoCenter Cache Behavior](#)

EchoCenter Cache Behavior


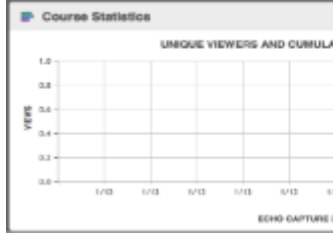
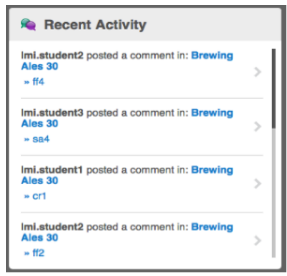
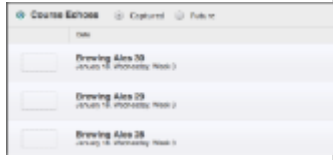
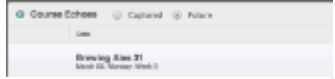


When the EchoCenter is loaded, page information is retrieved either from a cache or the application database. The first time the page is loaded, all information is retrieved from the database. On subsequent page loads, information

is retrieved from the cache, as retrieving information from the cache is faster than from the database. After a predefined amount of time, called Cache Time, has elapsed, page information is again retrieved from the database (instead of the cache) to guarantee accuracy of the data.

At any time, a user can force the page to load all information from the database by appending "**?skipCache=true**" to the EchoCenter URL.

For example: <https://ess12-white.ga.echo360.com:8443/ess/portal/section/7dcb18a9-d0c7-4399-bd9c-e37b4de16b89?skipCache=true>

The table below lists the caching setup for each page/module in EchoCenter, and describes the amount of time before cached information expires.

Module	Cache Time	Cache Name	Screenshot/Usage
Course and section names	1 hour	essSectionCache	
Course statistics	5 minutes	hemsPresentationsInSectionCache	
Recent Activity Stream	3 minutes	hemsDiscussionActivityInSectionCache	
Presentations	3 minutes	essPresentationsInSectionCache	
Scheduled Lectures	3 minutes	essCapturesInSectionCache	
Presentation Activity	15 minutes	hemsPresentationActivityCache	
Presentation Meta data	3 minutes	essPresentationsInSectionCache	
---	15 minutes	hemsDiscussionsInPresentationCache	Contains cached chat discussions for an echo
---	15 minutes	hemsPeopleInSectionCache	Contains cached users from a section

---	15 minutes	hemsPresentationPersonActivityCache	Contains cached detailed echo activity for an user
---	15 minutes	hemsPresentationPersonDetailActivityCache	Contains cached detailed echo statistics for an user
---	15 minutes	hemsPersonPresentationActivitiesCache	Contains cached detailed echo activities for an user in a section
---	3 minutes	hemsSectionWeeklyViewsCache	Contains cached weekly views for a section
---	3 minutes	essPresentationIdsInSectionCache	---
---	1 minute	essPresentationsCache	Contains cached echo
---	1 minute	essCurrentlyLiveAndFutureCapturesCache	Contains cached live and futures captures of a section
---	3 minutes	essCaptureRoomCache	Contains cached room that has capture device provisioned
---	60 minutes	essPersonCache	Contains cached user
---	15 minutes	essPresentationMediaDownloadReportByPresentationAndPersonCache	Contains cached downloadable report of echo with user in a section
---	15 minutes	essPresentationMediaDownloadReportByPersonCache	Contains cached downloadable report of an user in a section
---	15 minutes	hemsPersonActivitiesCache	Contains cached user activities for a section, by given pagesize, sortorder and sortfield
---	30 minutes	ecTokenCache	Holds tokens that hash to hems sessions. Tokens expire after 30 minutes of inactivity

Hosted Services

In this section:

- [Overview](#)

Overview

The Hosted Services area of the ESS System is where a System Administrator can configure and view the externally hosted systems that interact with the ESS and provide interactive services for instructors and students through the EchoCenter. The following Hosted Services are available for configuration:

- [Collaboration and Statistics Service](#)
- [Lecture Tools Integration](#)

The pages linked above provide details and instructions for configuring those services.

Collaboration and Statistics Service

In this section:

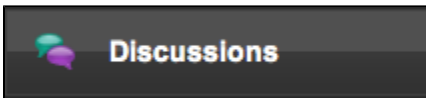
- [Overview](#)
- [Licensing](#)
- [Configuration](#)
- [Disable or Enable the Discussions Feature](#)

Overview

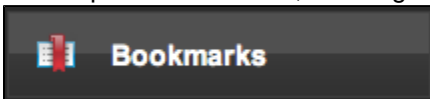
What is the Collaboration and Statistics Service?

The Collaboration and Statistics Service (also called the "Collaboration Service") offers these features:

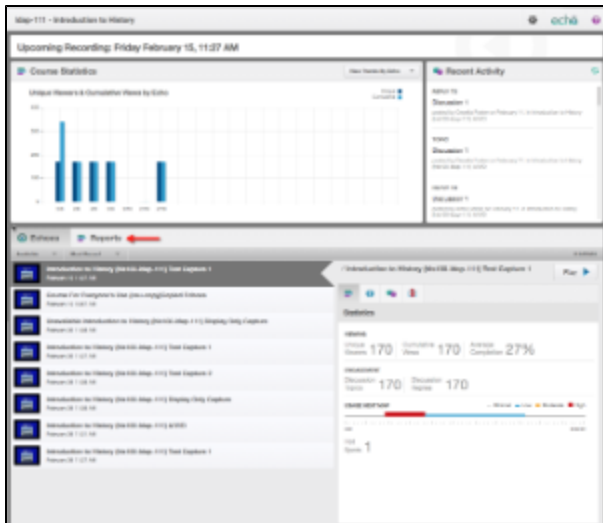
Discussions. A student (or an instructor) viewing an Echo can click the Discussions button, shown below, and begin a discussion with the instructor and other students. Discussions can also be launched from the [EchoCenter](#). Discussions can be enabled or disabled for a section using the Discussions check box in the EchoPlayer portion of the Section configuration page.



Bookmarks. A student (or an instructor) viewing an Echo can click the Bookmarks button, shown below, to mark certain points in an Echo, allowing him to quickly navigate to a particular point.



Student Usage statistics. These appear as charts and reports on the number of students who have viewed a particular Echo or participated in a discussion. Instructors (but not students) see usage statistics on the EchoCenter page, as shown in the figure below. See [Student Usage Reports - Are Students Engaged?](#).



Server Hosted by Echo360

The Collaboration and Statistics Service relies on the EchoSystem Server (ESS) or the EchoPlayer sending and receiving data from a server hosted by Echo360. Data is sent with SSL encryption. Only course information and statistical data required to support these features are stored on the server. No Echoes, raw media files, or identifying information about the student are stored there. For further details on Echo 360's privacy policy, see <http://echo360.com/echo360-online-privacy-policy/>.

Licensing

If you purchased any of the following licenses, the Collaboration and Statistics Service is automatically registered and enabled during ESS installation:

- The Collaboration and Statistics Service license (sometimes called the "HEMS" license).
- At least five recurring EchoSelect licenses. The Collaboration and Statistics Service license is included in this purchase.

Configuration

Once the ESS is installed:

- You **must** [modify the firewall](#) to allow port 443 (TCP outbound)
- You **may** want to follow the instructions in the [Disable or Enable the Discussions Feature](#) section below.

Disable or Enable the Discussions Feature



Who can do this?

- System Administrator
- Parent organization Administrator
- Child organization Administrator (for the child organization)
- Scheduler (for the section)

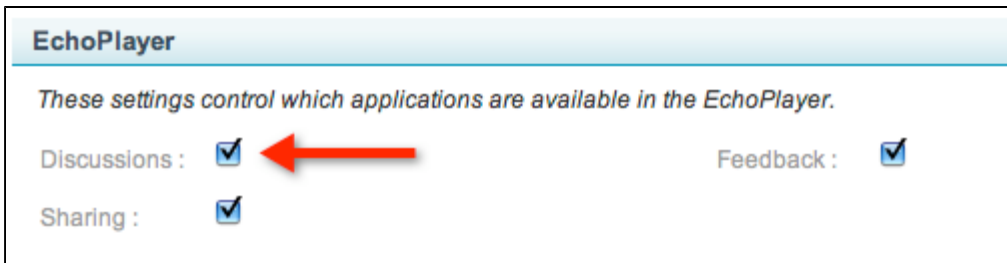
When the Collaboration and Statistics Service was set up, the following features were enabled:

- Bookmarks
- Student Usage statistics
- Discussions

The Bookmarks and Student Usage statistics features are automatically enabled. You cannot disable either except by disabling all collaboration features. The Discussions feature (which is enabled by default), is different. It can be enabled or disabled for an organization, for a course, or for a section.

The following procedure shows how to configure Discussions for a section.

1. Navigate to the section details page.
 - a. Navigate to **Schedule > Courses**.
 - b. Click on the course link.
 - c. Click on the section link. The section details page appears.
2. Click **Edit**.
3. Find the EchoPlayer settings group, shown in the figure below.
4. Check or uncheck the box for **Discussions**.



5. Click **Save**.

Lecture Tools Integration

In this section:

- [Overview](#)
- [Add Lecture Tools as a Hosted Service](#)
- [Configure User Authentication on Course Sections](#)
- [Provide Guidance to Academic Staff](#)

Overview

Echo360 integration with Lecture Tools allows instructors and students to utilize the presentation and polling capabilities of the Lecture Tools product directly through EchoCenter.

Instructors can access Lecture Tools through their course EchoCenters and prepare lecture materials, such as polls, quizzes or other interactive instructional items, and have those items be linked to each course or section. Once prepared and published, Students can access these materials, allowing them to become more integrated with the classroom even if they are not physically present.

Integration of Lecture Tools into EchoSystem requires the following configurations:

- Addition of Lecture Tools as a Hosted Service on the EchoSystem Server (ESS)
- Use of the [Collaboration and Statistics Service](#) (also referred to as HEMS)
- [Sections must require user authentication](#) for EchoCenter access, in order to identify instructors and students.

Furthermore, Instructors should be instructed to access LectureTools through the course EchoCenter (and not independently through a direct LectureTools link). The informational flow, seamless authorization, and connection between courses in EchoSystem and LectureTools is currently "one way". The only way EchoCenter knows that an

Echo is linked with a LectureTools Lecture is to create the LectureTools lecture from the EchoCenter link.

The below sections of this page cover administrative configuration for use of Lecture Tools with EchoCenter.

Additional user-directed information for instructors is located in [Using Lecture Tools with EchoCenter](#), and for students on the [Seeing Lecture Tools Materials in EchoPlayer](#) section of the Guided Tour of an EchoCenter Page.

Add Lecture Tools as a Hosted Service

To add Lecture Tools integration to EchoSystem, you must add Lecture Tools as a Hosted Service, which configures authentication between the ESS and the Lecture Tools service.

If you have a Lecture Tools license, you should have received an email containing some configuration properties related to your Lecture Tools service. If you have NOT received this email, contact your Lecture Tools support representative. You cannot continue without this information.

Once you have the Lecture Tools configuration information use the following steps to add Lecture Tools as a Hosted Service.

1. On the ESS, navigate to **System > Hosted Services**. You should already see a Collaboration and Statistics service listed there. If you do not, contact [Echo360 Customer Support](#).
2. Click **Add**. The Hosted Service Information page appears, as shown in the below figure.

The screenshot shows a web form titled "Hosted Service Information". It contains four text input fields with labels: "Label:", "Customer Key:", "API Secret:", and "API Host URL:". At the bottom right of the form, there are two buttons: "Save" (in blue) and "Cancel" (in grey).

3. Enter a **Label** that clearly identifies this as the Lecture Tools service. This is the text you will see in the list of Hosted Systems.
4. Complete the Consumer Key, API Secret, and API Host URL fields using the email you received, discussed above, with these configuration properties.
5. When finished, click **Save**.

Configure User Authentication on Course Sections

Lecture Tools needs to know who is attempting to access its information, and the EchoCenter needs to know how to present links and information to the user (depending on whether it is a student or instructor). In order to do this, each section to be integrated with Lecture Tools needs to have the Security Settings configured to require user authentication to access the EchoCenter.

Use the [Security Settings](#) section of the Edit Section page to make this selection. It may be easier for you to set the default [Security Settings for the Organization](#) to one that requires authorization. This allows each section configured for the Organization to inherit that security setting, eliminating the need to manually configure each.

You may also need to configure additional [Security Modules](#), or change the settings for existing modules as needed. This is because the Security Settings available for selection are determined by what security modules are configured for the ESS.

Users Accounts Must Have an Email Address

Access to Lecture Tools must occur through the EchoCenter. When a Lecture Tools button is clicked, the EchoCenter passes through the user's first and last name and email address. If it does not receive an email address, Lecture Tools will not allow the user to connect. The user receives a notification and is provided with a instructions to update or enter the account email address to be used. This applies to both instructors and students.

Provide Guidance to Academic Staff

You will want to provide course instructors and other presenters with the basic information they will need to use Lecture Tools with their courses. There is information provided in the [Academic Staff Guide](#), in particular on the page devoted to [Using Lecture Tools with EchoCenter](#).

Specifically, you want to be sure that the course instructors are told (and advise their students) to **always** access the EchoPlayer through the course EchoCenter. The integration and pass-through of information from Lecture Tools is provided through the EchoCenter. Anyone accessing the lecture (including both Echoes and Live webcasts) through a direct link to the EchoPlayer will NOT see the Lecture Tools materials provided.

Furthermore, you will want to advise your staff that EchoCenter does not, at this time, support the use of an Image Quiz from Lecture Tools. All other question formats provided by Lecture Tools can be used through EchoCenter.

Security

- [Security Modules](#)
- [Trusted Systems](#)
- [LDAP Authentication](#)
- [CAS and Shibboleth Authentication](#)

Security Modules

In this section:

- [Overview](#)
- [Seamless Only vs Authentication Required](#)
- [If You Are Creating an LDAP Security Module](#)
- [If You Are Creating a Seamless Only Security Module](#)
- [Create the Security Module](#)
- [Delete the Security Module](#)

Overview

You can implement any of four different types of security:

Allow All, the default security module, requires no authentication.

Authentication Required allows you to authenticate users against the [user profile information](#) on the ESS, or a against a configured [Trusted System](#) such as [CAS or Shibboleth](#) or other third-party system.

LDAP integrates the ESS with an existing LDAP security system. See [LDAP Authentication](#) for additional information and instructions. If necessary, you may want to refer to this KB (Knowledge Base) article ([LDAP](#)

[security module configuration](#)) for details on configuring the ESS for LDAP.

Seamless Only provides the ability for a trusted system, such as an LMS, to perform authentication and authorization for ESS content links. This allows a user to seamlessly log in to content hosted by ESS from publishers such as Blackboard and Moodle. See:

- [Blackboard Learning Management System Enterprise 7.3-9.1 - Individual Link Publishing Moodle - EchoCenter Publishing](#)
- [Moodle - EchoCenter Publishing](#). A trusted system must be implemented for the Moodle 2.x integration. It is optional for Moodle 1.9.x.

If you are using [LTI-Based Publishing](#), you **MUST** use either LDAP or Authentication Required as the security module for user authorization.

If you are using [Seamless Only](#) to provide access through an LMS or other third-party system, users can only access Echoes through that system, and only if you have installed the building block or plug-in that provides seamless authentication into an EchoSystem. Echo360 provides downloads for supported systems via the [Customer Portal](#).



Accessing the Knowledge Base

You will need a customer portal login to access the Knowledge Base. Contact [Technical Support](#) if you need a login.

Seamless Only vs Authentication Required

If **Seamless Only** is used on a section, then students must be authorized via an LTI or Seamless link for the specific section in the LMS in order to view content for that section.

If **Authentication Required** is used on a section, then any authenticated student can access the content for that section.

If You Are Creating an LDAP Security Module

Invite the LDAP Administrator to work with you or consult with the Administrator **before you begin**.

1. Ask the LDAP Administrator how to configure these fields:
 - LDAP URL.
 - Manager DN. Some LDAP Administrators set up a special user name and password for LDAP testing.
 - Manager Password.
 - Base Group DN.
 - User Name Attribute
 - Base User DN.
2. Discuss adding extra security to certain sections with the LDAP Administrator. If you decide to do so, ask the LDAP Administrator how to configure these fields:
 - Required Extra User Attribute Value
 - Extra User Attribute Name
3. You may want to print the screenshot below and have the LDAP Administrator annotate it with the correct input data for each field.

Security Settings – Tree 1			
<i>This is the primary LDAP tree that will be evaluated.</i>			
LDAP URL :	ldap://ess1-blue.echo360.com:389	Anonymous Login :	Yes
Manager DN :	cn=admin, dc=university, dc=edu	Manager Password :	*****
Group Attribute Name :		Group Attribute Value :	
Base Group DN :	ou=groups, dc=university, dc=edu	Search Group Subtree :	Yes
Group Membership Attribute :	member	User Name Attribute :	uid
Base User DN :	ou=users, dc=university, dc=edu	Search User Subtree :	Yes
Extra User Attribute Name :		Required Extra User Attribute Value :	
First Name :	givenName	Last Name :	sn
Email Address :	mail	Display Name :	displayName

If You Are Creating a Seamless Only Security Module

In certain specific circumstances, the Seamless Only security module can prevent users from logging in to an EchoCenter page. This happens when the section associated with the EchoCenter page has the Seamless Only security module specified and one of the following is true:

- **System Missing.** You have not configured a [trusted system](#).
- **User Not Authenticated.** The user logs in to the EchoCenter page without first logging in to a trusted system, such as an LMS like Blackboard or Moodle.

Because the user has not been authenticated, the EchoCenter does not allow access. The user is told that the user name or password is incorrect, as shown below.



To prevent the **System Missing** case from occurring, make sure you configure a trusted system if you configure a Seamless Only security module. See [Trusted Systems](#).

To address the **User Not Authenticated** case, follow these practices:

- If your security system is configured in a way that makes this case likely to occur, use a different security method, such as [LDAP](#), [CAS](#), or [Shibboleth](#). All of these methods support seamless login. This means that once the user has logged in, he can access the EchoCenter without being challenged for credentials.
- If you want to use the Seamless Only security method, prepare your school's Help Desk to aid users:
 - Explain how the **User Not Authenticated** case occurs.
 - Explain this quick fix: If a user is unable to log in to an EchoCenter page, have the user log in to a trusted system, such as a learning management system (LMS) first. Logging in to the LMS authenticates the user, who can then log in to the EchoCenter page.

Create the Security Module

Follow these steps to create the security module.

1. Log in as an Administrator.
2. Navigate to the **System > Security** page of the ESS.
3. Click the **Add** button. The Add Security Module page appears as shown in the figure below.

4. Enter a **Name** for the module, preferably using one that indicates its function, such as "ldap_content_module".
5. Enter a **Description** of the module. This appears in the Security Modules list on the ESS.
6. Select the parent or child organization from the **Organization** list.
7. Select the module type from the drop-down list. Depending on your selection, the page expands to show additional fields.
8. If you want this security module to be inherited by all new sections by default, select the **Default Module?** box. There can be only one Default Module. If you have already configured a Default security module, this field shows "No" as the value with no checkbox.
9. If you are configuring an [LDAP security module](#), complete the Security Settings - Tree 1 fields, using the input data from the LDAP Administrator. See [If You Are Creating an LDAP Security Module](#).
10. Click **Save**.

Delete the Security Module

You can only delete custom security modules. You cannot delete the **Allow All**, **Authentication Required**, **LDAP**, or **Seamless Only** security modules.

When you delete a custom security module, you must specify the alternate security module to use. If the custom security module is specific to a certain child organization, the alternate security module must be:

- Associated with the same child organization, or
- Associated with the parent organization

Upon deletion, when a replacement security module is chosen, any applicable properties of the deleted security module should be copied over to the replacement security module.

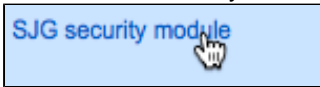
If you do not specify an alternate module, the **Allow All** security module will be applied to sections that were associated with the deleted security module.

✓ **Best Practice: Know the Alternate Security Module You Will Apply**

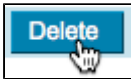
Before deleting a custom security module, review the sections that will be affected and determine which security module you want to apply to those sections.

Procedure

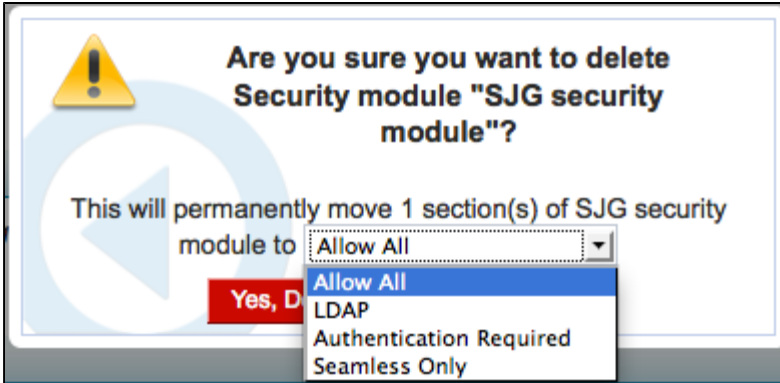
1. Navigate to **System > Security**.
2. Click on the security module you want to delete.



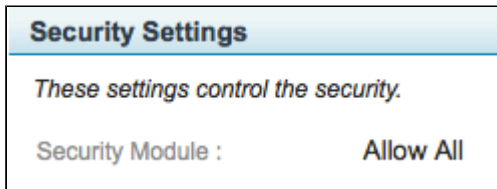
3. On the Security Module Details page, scroll to the bottom.
4. Click **Delete**.



5. Specify the alternate security module to use.



6. Confirm the deletion.
7. Notice that the security module has been removed from the security module list.
8. Check that the new security module was assigned.
 - a. Navigate to a section that had the deleted security module assigned
 - b. Notice that the section now has the alternate security module assigned.



Trusted Systems

In this section:

- [Add the Trusted System in the ESS](#)

Add the Trusted System in the ESS

1. Log in to the ESS as an Administrator.
2. Navigate to **System > Trusted Systems**.

Trusted Systems		1 - 1 of 1
System Name ▲	Description	
ecp	EchoCenter	

View: 20 Systems per Page

1 - 1 of 1

[Add](#)

- Click **Add**. The Add Trusted System page appears.

Add Trusted System

Trusted System Information

System Name :

Description :

Consumer Key :

[Save](#) [Cancel](#)

- Complete the required fields:
 - System Name.** We recommend the name of the system being integrated, such as "Blackboard" or "Moodle".
 - Description.** We recommend the URL of the system being integrated.
 - Consumer Key.** We recommend a simple string, such as your initials, for the Consumer Key.
- Click **Save** to commit your edits and reveal your *Consumer Secret*.

⚠ Record the Consumer Key and Consumer Secret.
 Make a note of the Consumer Key and copy the Consumer Secret value from the Trusted Systems page into a text editor. Make sure you copy the equals signs (==) at the end of the Consumer Secret. **Do not copy the extra character of white space that follows the equals signs (==).**

- Click **Done**.

LDAP Authentication

In this section:

- [Overview](#)
- [Directory Systems Supported](#)
- [Network Requirements](#)
- [Enable LDAP Authentication](#)
 - [Consult With the LDAP Administrator](#)
 - [Create the Security Module](#)
 - [Test the Security Module](#)
 - [Deploy the Security Module](#)
 - [Modify the User Account](#)
 - [Deploy Additional Security](#)

Overview

LDAP (Lightweight Directory Access Protocol) allows you to use a single central source to authenticate user credentials. You can integrate the EchoSystem with LDAP so all users are authenticated. These users might be:

- **System users** who access the EchoSystem Server (ESS)
- **Content creators** who access Ad Hoc capture or upload recordings created in Personal Capture
- **Students** who review content already created

The distinction between system users and content users is important because, though you create a single security module, it exists as two instances:

- As the system instance (the *application security module*), it authenticates users logging in to the ESS administrative interface. These might be:
 - A System Administrator logging into the ESS
 - An Instructor using Ad Hoc capture in the classroom
 - An Instructor or Teaching Assistant uploading a personal capture recording
- As the content instance (the *content security module*), it authorizes Academic Staff and students logging in to view content. These might be:
 - Students playing an Echo.
 - Students or Academic Staff accessing EchoCenter pages. When users are authorized with the content instance, you can present [different EchoCenter pages](#) for students and Instructors. If you do not authorize users with the content instance, students and Instructors both see the [standard](#) EchoCenter page.

The security module supports:

- **Automatic searches of sub-trees.** One part of creating the security module is configuring the tree definition fields. These fields determine how the ESS connects to the LDAP directory and what criteria are considered when a user provides credentials. The ESS searches up to three different trees and any number of sub-trees within each tree. The trees can reside on the same or different LDAP servers.
- **Multiple tree failover up to three trees.** If the EchoSystem does not find the user's credentials in the first tree searched, it searches two more trees.
- **Fallback to the ESS database.** If the user's credentials are not found in any of the LDAP trees, the EchoSystem searches its internal database. If the user's credentials are still not found, the EchoSystem refuses access.
- **Security over SSL.** SSL, the Secure Sockets Layer protocol, provides transport security that prevents an interloper from reading traffic.

Directory Systems Supported

The EchoSystem LDAP feature is compatible with the following directory systems:

- OpenLDAP 2.3
- Microsoft Active Directory & AD Lightweight Directory Service
- MacOS X Open Directory



LDAP and Ad Hoc Interface

Disabling HTTPS for either the appliance or Classroom Capture Ad Hoc interface passes LDAP credentials in clear text.

Network Requirements

LDAP communications use port 389 for insecure transport and port 636 for secure transport over SSL/TLS.

Enable LDAP Authentication

Enabling LDAP authentication consists of these phases.

1. [Consult With the LDAP Administrator](#)
2. [Create the security module](#)
3. [Test the security module](#)
4. [Deploy the security module](#)
5. **If you are deploying an application security module:** [Modify the user account](#)
6. **Optional:** [Deploy additional security](#)

Consult With the LDAP Administrator

Invite the LDAP Administrator to work with you or consult with the Administrator **before you begin**.

1. Ask the LDAP Administrator how to configure these fields:
 - LDAP URL.
 - Manager DN. Some LDAP Administrators set up a special user name and password for LDAP testing.
 - Manager Password.
 - Base Group DN.
 - User Name Attribute
 - Base User DN.
2. Discuss adding extra security to certain sections with the LDAP Administrator. If you decide to do so, ask the LDAP Administrator how to configure these fields:
 - Required Extra User Attribute Value
 - Extra User Attribute Name
3. You may want to print the screenshot below and have the LDAP Administrator annotate it with the correct input data for each field.

Security Settings – Tree 1			
<i>This is the primary LDAP tree that will be evaluated.</i>			
LDAP URL :	ldap://ess1-blue.echo360.com:389	Anonymous Login :	Yes
Manager DN :	cn=admin, dc=university, dc=edu	Manager Password :	*****
Group Attribute Name :		Group Attribute Value :	
Base Group DN :	ou=groups, dc=university, dc=edu	Search Group Subtree :	Yes
Group Membership Attribute :	member	User Name Attribute :	uid
Base User DN :	ou=users, dc=university, dc=edu	Search User Subtree :	Yes
Extra User Attribute Name :		Required Extra User Attribute Value :	
First Name :	givenName	Last Name :	sn
Email Address :	mail	Display Name :	displayName

Create the Security Module

1. Log in as an Administrator.
2. Navigate to the **System > Security** page of the ESS.
3. Click the **Add** button. The Add Security Module page appears, the top section of which is shown in the below figure.

Add Security Module

General Information

Name : LDAP Module

Description : LDAP Security Module

Organization : echo360

Module Type : LDAP Security

Default Module? :

Security Settings

These settings control the security.

Authentication Mode : Try all trees independently
 Try all trees together as one

4. Enter a **Name** for the security module, preferably one that indicates its function, such as "LDAP_Content". This name appears in the Security Modules list and the Security Settings drop-down list for Organizations and Sections.
5. Enter a **Description** for the security module. This description appears in the Security Modules list.
6. Select the **Organization** to which this security module applies.
7. Select **LDAP Security** from from the Module Type drop-down list.
8. Use the **Default Module** checkbox to indicate whether this is the default security module inherited by all new sections. There can be only one Default security module.
9. For **Authentication Mode**, select one of the following options from the drop-down list, shown in the above figure:
 - **Try all trees independently:** Select this option if you are using only one Tree for your LDAP authentication, or you are using a Master and Slave LDAP configuration, where the Tree configurations are identical and the Slave LDAP should only be used if the Master LDAP is unavailable or cannot authenticate the user for some reason.
 - **Try all trees together as one:** Select this option if your Tree configurations are using different identifiers for authentication. For example, different types of users may use different User Name identifiers for login. Configuring multiple Trees to accommodate these different user identification types allows for seamless authentication of the different user types through a single security module.
10. Complete the fields in the Tree 1 section, as well as the Tree 2 and Tree 3 sections if appropriate. See [Consu It with the LDAP Administrator](#) section above for obtaining input for these fields.
11. If appropriate at this time, enter a **User Name** and **Password** to test the LDAP configuration. See [Test the Security Module](#) below for more information.
12. When finished, click **Save**.

Test the Security Module

Each security module contains a section to test your configuration based on a specific user's credentials. Follow these steps.

1. In the ESS, navigate to **System > Security**.
2. Click on the label of the module you would like to test.

3. Repeat the following steps for each user to be tested:
 - a. Enter a user name in the **User Name** field.
 - b. Enter that user's password in the **Password** field.
 - c. Click **Test LDAP Configuration**.
 - d. Look for a success message.

Deploy the Security Module

After you create and test a security module, deploy it.

- When deployed as a *content security module*, a student must log in against the LDAP criteria before viewing a presentation (an Echo).
- When deployed as an *application security module*, users must log in against the LDAP criteria before accessing the ESS administration interface (the web user interface).

Content and application security modules are deployed differently because they affect different parts of the system.

If You Use EchoCenter Pages

If you use [EchoCenter](#) pages and subscribe to the [Collaboration Service](#) you can enable [different EchoCenter pages](#) for students and Instructors. Users with the role of student see a student page; users with the roles of Instructor, Administrator, or Teaching Assistant see the Instructor EchoCenter page.

To allow for these different pages, LDAP must authenticate a user as either a student or Instructor. You must:

1. Configure both a content security module and an application security module with at least one common LDAP authentication tree
2. Deploy both the content security module and the application security module

If you do not deploy **both** security modules, everyone sees the standard EchoCenter page.

Deploy a Content Security Module

Follow these steps.

1. Log in as an Administrator.
2. Navigate to the **Schedule > Courses** page.
3. Click on the name of a course containing a section where the content security module should be deployed.
4. Point to the section.
5. Click the **edit** button that appears.
6. In the **Application Security** section, select the **content** security module from the **Security Module** drop-down list.
7. Notice that additional fields appear with names similar to those on the module configuration page.
8. Complete these optional section-level overrides to allow or disallow access based on the section an Echo belongs to.
9. **Save** the section.

Deploy an Application Security Module

When you deploy an application security module, you can enable fallback to the ESS database and also allow ESS users to log in to view content.

Follow these steps.

1. Log in as an Administrator.
2. Navigate to **System > System Settings**.
3. In the **Application Security** section, select the **application** security module from the **Security Module** drop-down list.
4. Optionally, select **Enable Fallback to Internal ESS Database** and **Allow ESS users to login to view content**. See [Application Security](#).
5. Click **Save**.

Modify the User Account

If you are deploying an application security module, change the ESS user name so it matches the user name for other university accounts. This is often <initial><lastname>, though it could be the full email address. The ESS and LDAP servers use this key field to unambiguously relate an account in the ESS directory to an account in the (unrelated) LDAP directory.

If you are modifying the user name of the System Administrator, you must include a password. See [Add a User](#).

Deploy Additional Security

If you and the LDAP Administrator decided that certain sections should have additional security (see [Consult With the LDAP Administrator](#)), add the security now.

Follow these steps for **each** section that requires additional security.

1. Navigate to the section details page.
 - a. Navigate to **Schedule > Courses**.
 - b. Click on the link for the course you want to edit.
 - c. Click on the link for the section you want to edit.
2. On the section details page, find the **Security Settings - Tree 1** settings group.
3. Populate the following fields as instructed by the LDAP Administrator:
 - Required Extra User Attribute Value
 - Extra User Attribute Name

CAS and Shibboleth Authentication

- [Overview](#)
- [SSO for Classroom Capture or Personal Capture](#)

Overview

EchoSystem provides support for external single sign on (SSO) through either Jasig's CAS or Shibboleth federated authentication systems. These systems allow your users to sign in once, then provide seamless, secure access to the other integrated products in your enterprise.

- For more information on Jasig's CAS project, see <http://www.jasig.org/cas>.
- For more information on Shibboleth's federated identity solutions, see <http://shibboleth.net>

The configuration and setup of these external authentication systems within EchoSystem requires coordination with Echo360 professional services personnel to implement.

If you are interested in implementing SSO for your institution, please contact Echo360 professional services via

email at services@echo360.com.

SSO for Classroom Capture or Personal Capture

CAS and Shibboleth are not compatible with Classroom Capture or Personal Capture. This means that the credentials you use for CAS and Shibboleth will not automatically work with Classroom Capture or Personal Capture.

It is possible to ensure single sign on for users **if you use LDAP** as the security method for your ESS: Have the ESS LDAP application module be the same LDAP module that your CAS/Shibboleth uses.

A user will be able to log in to different components (Classroom Capture, Personal Capture, EchoCenter, ESS) with the same credentials although the technologies behind their authentications are different.

- When a user logs in to Classroom Capture or Personal Capture, s/he is authenticated via LDAP.
- When a user logs in to other components of the EchoSystem (the EchoCenter, for example), s/he is authenticated via CAS or Shibboleth.

Import and Export Objects

In this section:

- [Overview](#)
- [General Procedure - Export Objects](#)
- [General Procedure - Edit the Spreadsheet](#)
- [General Procedure - Import Objects](#)
- [Example - Move Courses to a New Organization](#)
- [Example - Add New Rooms](#)
- [Example - Edit Existing Users](#)
- [Example - Post EchoCenter Page URLs to an LMS](#)

Overview

The export/import feature lets you export the properties for certain objects to a spreadsheet, edit those properties, and import them. This is an efficient way to:

- Add many objects all at once
- Change properties of many objects all at once
- Extract the properties of many objects to a spreadsheet for further manipulation

You might use this feature when:

- Your institution has built a new, fully equipped lecture hall. You need to **add many new rooms**. This is an **add many** operation.
- You have added organizations to **allow delegated administration**. Many objects (courses, sections, rooms, users) that had been owned by the parent organization (the university) should now be owned by a particular child organization, such as the law school. This is an **edit many** operation.
- You want to post the EchoCenter URL of many sections to your learning management system (LMS), but use an LMS that is not integrated with the EchoSystem Server (ESS). You can extract the URLs to a spreadsheet then copy-paste them to your LMS. This is an **extract** operation.

You can do these operations efficiently by using the import and export features with a spreadsheet program such as Excel.

EchoSystem allows for import and export of the following objects:

- [Courses](#)
- [Sections](#)
- [Rooms](#)
- [Users](#)
- [Schedules](#)
- [Personal Capture Licenses](#)

You must logged in as a System Administrator or the Administrator of the parent organization to use this feature. When you export or import objects, all objects of that type (all courses, all sections, all rooms) are exported. Export cannot be limited by organization. That is why only System Administrators or parent organization Administrators (but not child organization Administrators) can use this feature.

The basic steps are the same for all operations.

1. **Export existing objects.** Do this even if you are doing an **add many** operation because it gives you a properly formatted spreadsheet.
2. **Edit the spreadsheet.**
3. **Import the spreadsheet.**


General Procedure - Export Objects

This procedure shows how to export users. Adapt this process to export other objects: courses, sections, schedules, rooms, or Personal Capture licenses.

1. Navigate to **Configuration > Users**.
2. Scroll to the bottom of the page.
3. Click **Export**.
4. The user records are exported to CSV file. You can open this file in a spreadsheet program such as Excel.

General Procedure - Edit the Spreadsheet

1. Follow these best practices to reduce the possibility of errors:
 - Adjust the cell margins so you can easily see the content of each cell.
 - Sort the spreadsheet so the relevant cells display at the top of the page.
 - For **add many** operations: clear the existing data cells, but preserve row 1, the heading cells.
2. Enter and edit data.
 - If you change an object's organization, see [Inheritance When You Change an Object's Organization](#).
 - In the example shown below, David Goodwin, who had been Academic Staff for the university, becomes Academic Staff for the engineering school and a Scheduler for CLP. Gilda Good, who had been a Scheduler for the university, becomes a Scheduler for the engineering school.

dgoodwin@echo360.com	dgoodwin		Echo360 / engineering;role-name-academic-staff	Echo360 / CLP;role-name-scheduler
ggood@echo360.com	ggood		Echo360 / engineering;role-name-scheduler	

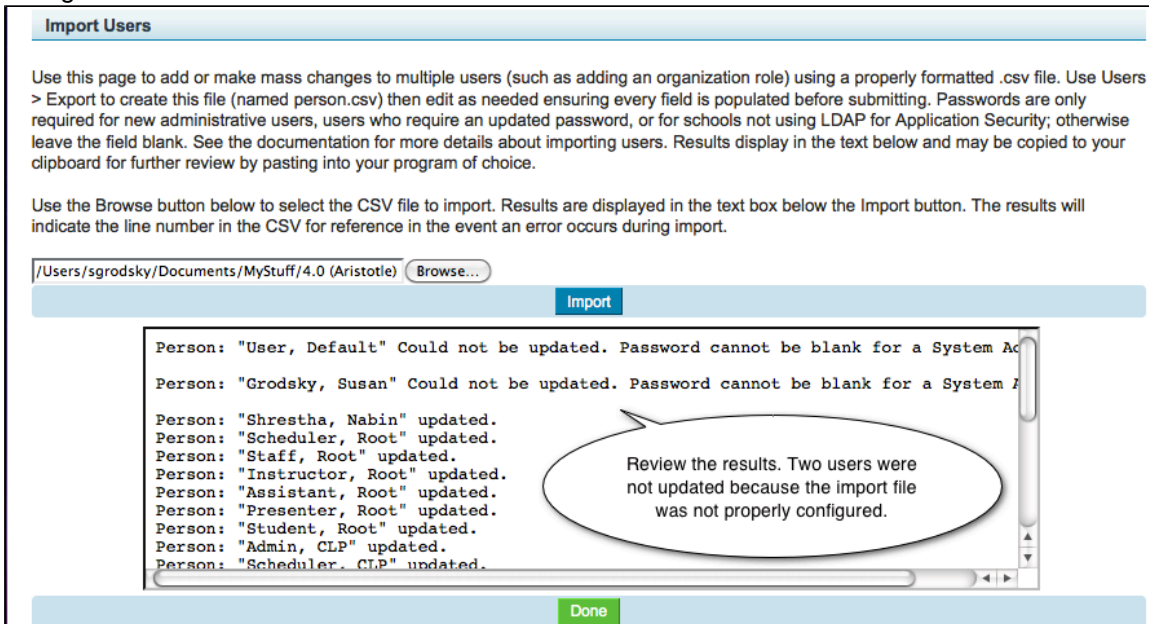
3. Save the edited spreadsheet as a CSV file.

General Procedure - Import Objects

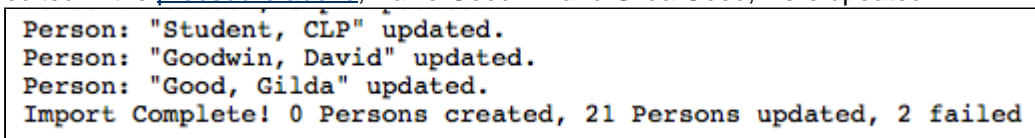
This procedure shows how to import users. Adapt this process to import courses, sections, or rooms.

This procedure assumes you have already exported objects and edited the spreadsheet. You must have a properly configured spreadsheet to import.

1. Navigate to **Configuration > Users**.
2. Scroll to the bottom of the page.
3. Click **Import**. The Import Users screen appears.
4. Review the help text. Make sure your import file is properly configured.
5. Click **Browse**.
6. Select the import file.
7. Click **Import**. The file is imported and processed. Results of the import appear in the field at the bottom of the screen.
8. Review the results.
9. Notice in the example below that two users were not updated because the import file was not properly configured.



10. Scroll to the bottom of the results field to review the summary. In the figure below, notice that the two users edited in the [procedure above](#), David Goodwin and Gilda Good, were updated.



11. Decide if you need to edit the import file and re-import. You may want to copy the results to an editor (Notepad, TextEdit) or make notes about edits required.
12. Click **Done**.
13. If you like, check one or two user profiles to see the effect of the imports. The below example shows the user profiles for David Goodwin and Gilda Good.

Name	Email Address	System Role(s)
Goodwin, David	dgoodwin@echo360.com	Echo360 / CLP-->Scheduler; Echo360 / Engineering-->Academic Staff
Good, Gilda	ggood@echo360.com	Echo360 / Engineering-->Scheduler

Example - Move Courses to a New Organization

In this example, you move a course to another organization. Sections, schedules, and Echoes associated with the course move to the other organization.

This example follows the general procedures outlined above.

1. Export the courses.
 - a. Navigate to **Schedule > Courses**.

- b. Scroll to the bottom of the page.
- c. Click **Export Courses**.
- d. The course records are exported to a spreadsheet named **course-<num>.csv**, as shown in the example below. If you have a spreadsheet program installed, it opens automatically.

A	B	C
Course Name	Identifier	Organization
nabin's adhoc test	AHT101	Echo360 / NS
LMI - Test Course One	lmi-tco	Echo360 / LMI
tg: safeCapture Test	TGS100	Echo360 / Tade University
nabin's emi test	NEM200	Echo360 / NS
Blended Learning	ECH101	Echo360
Collab Course 1	CCT101	Echo360 / Collaboration
New aptus	identifier	Echo360 / Aptusnew
LMI - Section Testing	lmi-st	Echo360 / LMI

2. Edit the spreadsheet. See [General Procedure-Edit the Spreadsheet](#) for details and best practices.
 - You can change the course name, Identifier, and Organization.
 - In the example shown below, Blended Learning is moved from Echo360, the parent organization, to the School of Arts and Sciences. The Identifier changes from ECH101 to EDU201.

nabin's emi test	NEM200	Echo360 / NS
Blended Learning	EDU201	Echo360/AS
Collab Course 1	CCT101	Echo360 / Collaboration

3. Import the edited spreadsheet, adapting the [general procedure on importing](#).

Example - Add New Rooms

When you move a room to another organization:

- Devices associated with the room move to the other organization
- If a schedule is associated with the room, the schedule is no longer accessible to the originating organization after the change. The import fails for that room. To avoid this failure, remove the room from the schedule before moving the room.

This example shows how to add new rooms. For each room, you specify:

- Campus
- Building
- Room
- Organization

This example follows the general procedures outlined above.

1. Export the rooms.
 - a. Navigate to **Configuration > Rooms**.
 - b. Scroll to the bottom of the page.
 - c. Click **Export**.
 - d. The room records are exported to a spreadsheet named **room-<num>.csv**. If you have a spreadsheet program installed, it opens automatically.
2. Edit the spreadsheet. See [General Procedure-Edit the Spreadsheet](#) for details and best practices. The example below shows an edited spreadsheet ready to be imported.

Campus-Name	Building-Name	Room-Name	Organization
South	New Hall	Room 101	Echo360 / AS
South	New Hall	Room 102	Echo360 / AS
South	New Hall	Room 103	Echo360 / AS
South	New Hall	Room 104	Echo360 / AS

3. Import the edited spreadsheet, adapting the [general procedure on importing](#).

Example - Edit Existing Users

This example shows how to edit existing users. When you export and import users you can edit:

- **Last name.**
- **First name.**
- **E-mail address.**
- **User name.**
- **Password.** Passwords are only required for new administrative users, users who require an updated password, or for organizations not using LDAP. In most cases, you can leave the field blank.
- **Organization.**
- **Role.** If a user is assigned two roles, you can change either or both roles. If a user is not assigned a role, you can add up to two roles.

i Student Users must NOT have Organization or Role assigned

If you are importing Student users via the spreadsheet import, be sure there is no Organization or Role associated with any of the students. The ESS automatically identifies any user with no role or organization as a Student user.

You can add or change organization roles via import/export, but not section roles. You can, for example, add an individual to the organization in the Academic Staff role, but you cannot make her an Instructor for a particular section. To make someone an Instructor, you [edit the People and Section Roles setting](#) for the section.

To export and import users, follow the general procedures above.

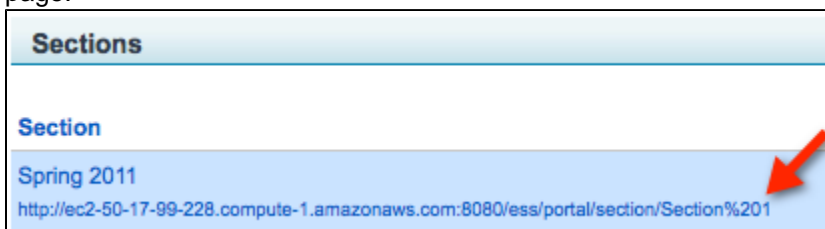
1. [Export users.](#)
2. Edit the spreadsheet. See [General Procedure-Edit the Spreadsheet](#) for details and best practices.
3. [Import users.](#)

Example - Post EchoCenter Page URLs to an LMS

You do not need to export section properties in order to move a section to a new organization. The section moves with the course when you move the course.

You might, however, want to use export and import to post [EchoCenter](#) URLs to your LMS.

You do not have to use this method if your LMS is [Blackboard Learn](#) or [Moodle](#). You can configure either of these learning management systems so EchoCenter URLs post automatically. However, if you are using another LMS, you must copy the URL from the section details page, shown in the below figure, and paste it to the LMS course page.



This can be tedious if you have many URLs to post. You may prefer the method described here: exporting the URLs to a spreadsheet and then copy-pasting to the LMS course page from the spreadsheet.

1. Export the sections.
 - a. Navigate to **Schedule > Courses**.
 - b. Scroll to the bottom of the page.
 - c. Click **Export Sections**.

- d. All sections for all courses are exported to a spreadsheet named **section-<num>.csv**. If you have a spreadsheet program installed, it opens automatically.
2. Copy-paste the URLs from the spreadsheet to the LMS.

Import Courses

In this section:

- [Format](#)
- [Special Field Descriptions](#)
- [CSV Example](#)

Format

Importing courses into the EchoSystem Server (ESS) requires that you create a CSV or "comma-separated-value" file. The file can have any name you want, as long as it contains a .csv extension. The file format must be as follows:

- There is one course record per line of the file
- The first line of the file should have the column names, as shown in the example below
- Each record value is contained in its own column (if the CSV file is generated by a spreadsheet program, such as Excel) or is separated by a comma in the flat (text) file.

You may want to generate an export of existing courses (**Schedule > Courses > Export Courses**) to provide a formatted CSV file to use as a base.

You can also update course information in the exported file, then reimport the file to apply the changes to the system.

The column headers and field values are as follows; use UTF-8 ascii characters only:

Field Name	Description
Course Name	The name of the course, such as Introduction to Economics.
Identifier	An abbreviated identifier for the course, such as ECON101 or ENG330. This also appears in the ESS and the EchoCenter.
Organization	See Special Field Descriptions below.

Special Field Descriptions

Organization names are comprised of two components:

- Organization name
- Suborganization name (if applicable)

They are separated by a sequence of "<space><forward slash><space>" like this: " / "

A valid organization would look like these examples:

- Organization / suborganization
- University
- University / math-department
- University / nursing-school

CSV Example

Following is an example of the format for this file:

Course-Name	Identifier	Organization
aptus course	ASLPL	echo360 / Aptus
Cat Grooming	CAT101	echo360
Course A: pcap test	CRS101.P	echo360
Course For Everyone's Use	ceu	echo360
Denice's course (do not delete)	DDD	echo360
ECCourse	ec	echo360 / Aptus
Intro to Linguistics	LING 101	echo360
Introduction to Cat Bathing	Cat Bathing 101	echo360
Ldap Course	ldap102	echo360
LMI American History: Revolution	lmi-his222	echo360
LMI Deutsch Course √übersetzung	lmi-gc	echo360
LMI First Course	lmi_fc	echo360
LMI Intro to American History: Colonolization	lmi_his111	echo360
Dog Grooming	DOGGroom101	echo360 / rest
test course	rest	echo360 / rest
Test Course 2	testcourse	echo360
test sec12	test sec12	echo360
test1course	asd	echo360

Import Sections

In this section:

- [Required Configuration](#)
- [Format](#)
- [Import Considerations](#)
- [CSV Example](#)

Required Configuration

Before you can import sections into the EchoSystem Server (ESS), you must have already defined the courses. The first required field of the sections import is the unique course identifier. This field must match to a pre-existing course.

The "email" fields in the CSV file must match one of the pre-existing users in the ESS. Users specified in the email fields of the CSV file but do not have the Academic Staff role in the section's organization will be assigned the role. You may consider performing a User export (**Configuration > Users > Export**) to provide you with a list of user email addresses to use.

Format

Importing sections into the ESS requires that you create a CSV or "comma-separated-value" file. The file can have any name you want, as long as it contains a .csv extension. The file format must be as follows:

- There is one course record per line of the file.
- The first line of the file must have the column names, as shown in the example below.

- Each record value is contained in its own column (if the CSV file is generated by a spreadsheet program, such as Excel) or is separated by a comma in the flat (text) file.

You may want to generate an export of existing sections (**Schedule > Courses > Export Sections**) to provide a formatted CSV file to use as a base.

You can also update section information in the exported file, then reimport the file to apply the changes to the system.

The column headers and field values are as follows; use UTF-8 ascii characters only:

Field Name	Description
Course-ID	The unique IDs defined in the ESS for the Courses (which must pre-exist). The easiest way to get this data is to export the courses (Schedule > Courses > Export Courses) or to create your Course CSV import file, then import that file immediate before importing the Section CSV file.
Section-Name	The plain-text name that you want to show to users in the ESS and in recordings.
Term-Name	Must match a pre-existing term name.
Section-URL	Must be blank. Will be ignored if not blank.
External-System-ID1	The unique identifier for this section in your LMS. EchoSystem will use this to publish presentation links to the correct section.
External-System-ID2	A second unique identifier for this section in your LMS. EchoSystem will use this to publish presentation links to the correct section.
External-System-ID3	A third unique identifier for this section in your LMS. EchoSystem will use this to publish presentation links to the correct section.
External-System-ID4	A fourth unique identifier for this section in your LMS. EchoSystem will use this to publish presentation links to the correct section.
External-System-ID5	A fifth unique identifier for this section in your LMS. EchoSystem will use this to publish presentation links to the correct section.
External-System-ID6	A sixth unique identifier for this section in your LMS. EchoSystem will use this to publish presentation links to the correct section.

Email-Instructor1	A pre-existing User that will be associated with this section as an instructor.
Email-Instructor2	A pre-existing User that will be associated with this section as an instructor.
Email-Teaching-Assistant1	A pre-existing User that will be associated with this section as a Teaching Assistant.
Email-Teaching-Assistant2	A pre-existing User that will be associated with this section as a Teaching Assistant.
Email-Guest-Presenter1	A pre-existing User that will be associated with this section as a Guest Presenter.
Email-Guest-Presenter2	A pre-existing User that will be associated with this section as a Guest Presenter.
Email-Student-Presenter1	A pre-existing User that will be associated with this section as a Student Presenter.
Email-Student-Presenter2	A pre-existing User that will be associated with this section as a Student Presenter.

Import Considerations

If you are importing more than 1,000 sections, divide the sections into multiple independent CSV files where each has 1,000 or fewer sections. Then import the files separately. For example, if you are importing 2,345 sections, you could divide them into three separate files with 800, 800, and 745 entries. You would then import the three files.

CSV Example

Following is an example of the format for this file:

Course-ID	Section-Name	Term-Name	Section-URL	External-System-ID1	External-System-ID2	External-System-ID3	External-System-ID4	External-System-ID5	External-System-ID6	External-System-ID7	Email-Instructor1	Email-Instructor2	Email-Teaching-Assistant1	Email-Teaching-Assistant2
ec	Seamless Only section	ecterm									ecinstructor@institution.edu	uday@institution.edu	babu@institution.edu	
ASLPL	section	aptus term									defaultpresenter@institution.edu			
ec	Ldap	aptus term									ecinstructor@institution.edu			
lm-ac	allowall	Rest of 2013		du1-tc			lit				lingie@institution.edu			
ec	Authentication Rec	aptus term									ecinstructor@institution.edu			
test	test	Summer 2013									defaultpresenter@institution.edu			
ASLPL	section	echo.Summer 2011.1									uday@institution.edu		babu@institution.edu	
Ss101	Allow All	echo.Summer 2011.1									sn.instructor@sn.com			
Ss101	Seamless	Summer 2013									Shruthi@institution.edu			
ASLPL	nthiya	echo.Summer 2011.1									defaultpresenter@institution.edu		babu@institution.edu	
ec	Allow All	ecterm									ecinstructor@institution.edu			
Ss101	Allow All	Summer 2013									sn.instructor@sn.com			
ec	Seamless Only	aptus term									ecinstructor@institution.edu			
rest	rest_section	restterm1									restinstructor@rest.in			
lm-ac	Seamless	Rest of 2013		sot							lingie@institution.edu			
rest	restSection	echo.Summer 2011.1									restinstructor@rest.in		restta@rest.in	
test comma	Nithya.section,add	Device Deletion									test@test.org			
rest	restSection	restterm1									restinstructor@rest.in		restta@rest.in	
Ss101	ldap	Summer 2013									sn.instructor@sn.com			
ec	Allow All	aptus term									ecinstructor@institution.edu			
ASLPL	sysAptus section	aptus term									uday@institution.edu		babu@institution.edu	
ASLPL	Aptus section	aptus term									uday@institution.edu		babu@institution.edu	
lm-ac	ldap	Rest of 2013		dess2	dess	aot111test		du1			lingie@institution.edu	spanish@ingie.org		
Ss101	Auth read	Summer 2013									sn.assistant@sn.com			
lm-ac	authority	Rest of 2013									german@ingie.org		lingie@institution.edu	
ec	Auth Only	aptus term									ecinstructor@institution.edu			
ec	Authentication Rec	ecterm									ecinstructor@institution.edu			
ec	aptus LDAP	ecterm									ecinstructor@institution.edu			
CRS101.P	CRS101.P.001	echo.Summer 2011.1		CRS102.E.001	CRS102.E.001.1						instructor@institution.edu	uday@institution.edu	rta@institution.edu	
Cat Bathing 101	Introduction to Ca	Summer 2013									bronywngagne@gmail.com			

Import Rooms

In this section:

- [Format](#)
- [Special Field Descriptions](#)
- [CSV Example](#)

Format

Importing rooms into the EchoSystem Server (ESS) requires that you create a CSV or "comma-separated-value" file. The file can have any name you want, as long as it contains a .csv extension. The file format must be as follows:

- There is one room record per line of the file
- The first line of the file should have the column names, as shown in the table below
- Each record value is contained in its own column (if the CSV file is generated by a spreadsheet program, such as Excel) or is separated by a comma in the flat (text) file.

You may want to generate an export of existing rooms (**Configuration > Rooms > Export**) to provide a formatted CSV file to use as a base.

You can also update room information in the exported file, then reimport the file to apply the changes to the system.

BE ADVISED:

- A new campus will be created if there is no pre-existing campus identified by "Campus-Name".
- A new building will be created if there is no pre-existing building identified by "Building-Name".

The column headers and field values are as follows; use UTF-8 ascii characters only, and the fields, except Organization, are limited to 50 characters:

Field Name	Description
Campus-Name	The name of the Campus on which the room resides. If the Campus-Name entered does not already exist, it will be created on import.
Building-Name	The name of the building in which the room exists. if the Building-Name entered does not already exist, it will be created on import.
Room-Name	The name to be given to the room. This appears in the ESS interface and is the room selected for device and schedule assignment.
Organization	See Special Field Descriptions below.

Special Field Descriptions

Organization names are comprised of two components:

- Organization name
- Suborganization name (if applicable)

They are separated by a sequence of "<space><forward slash><space>" like this: " / "

A valid organization would look like these examples:

- Organization / suborganization
- University
- University / math-department
- University / nursing-school

CSV Example

Following is an example of the format for this file:

A	B	C	D	E
Campus-Name	Building-Name	Room-Name	Organization	
BethesdaCampus	aptus building	Room G-2	echo360 / rest	
BethesdaCampus	aptus building	Room G-1	echo360 / Aptus	
BethesdaCampus	aptus building	Room B-1	echo360 / shruthi	
BethesdaCampus	aptus building	Room A-1	echo360	
BethesdaCampus	aptus building	Room B-2	echo360	
BethesdaCampus	aptus building	Room A-2	echo360 / rest	
DullesCampus	echo.Building	Dulles Auditorium	echo360	
DullesCampus	echo.Building	Dulles Auditorium	echo360	
DullesCampus	echo.Building	Dulles Auditorium	echo360	
DullesCampus	echo.Building	Dulles Auditorium	echo360	
DullesCampus	echo.Building	Dulles Auditorium	echo360	
DullesCampus	echo.Building	Dulles Auditorium	echo360	
NOVACampus	Cap2 Building	Room 4	echo360	
NOVACampus	Cap2 Building	Room 1	echo360 / rest	
NOVACampus	Cap2 Building	Room 2	echo360	
NOVACampus	Cap2 Building	Room 3	echo360	
NOVACampus	Cap2 Building	Room 6	echo360 / rest	
NOVACampus	Cap2 Building	Room 6a	echo360 / Aptus	

Import Users

In this section:

- [Format](#)
- [Special Field Descriptions](#)
- [CSV Example](#)

Format

Importing users into the EchoSystem Server (ESS) requires that you create a CSV or "comma-separated-value" file. The file can have any name you want, as long as it contains a .csv extension. The file format must be as follows:

- There is one user record per line of the file
- The first line of the file should have the column names, as shown in the table below
- Each record value is contained in its own column (if the CSV file is generated by a spreadsheet program, such as Excel) or is separated by a comma in the flat (text) file.

You may want to generate an export of existing users (**Configuration > Users > Export**) to provide a formatted CSV file to use as a base, and to show you how the CSV fields correspond with the fields in the ESS user interface.

You can also update user information in the exported file, then reimport the file to apply the changes to the system.

NOTE: You cannot set or update the Password for existing users. The password field is only usable for new users

you are creating via the import.

The column headers and field values are as follows; use UTF-8 ascii characters only:

Field Name	Description
Last-Name	The last name of the user. Limit 50 chars
First-Name	The first name of the user. Limit 50 chars
Display-Name	The user's name as it appears in the interface, typically First Name Last Name. Limit 50 chars
Email	The user's email address. Limit 128 chars
User-Name	The username to be used for logging into the system. Limit 50 chars
Password	The password to be used for logging into the system. No Char limit. Can only be used for new users being created by the import. You cannot use the import to set or update passwords for existing users.
Organization-Role-Name1	Do not populate for Student Users. Required for all other user types. See Special Field Descriptions .
Organization-Role-Name2	See Special Field Descriptions .
Organization-Role-Name3	See Special Field Descriptions .
Organization-Role-Name4	See Special Field Descriptions .
Organization-Role-Name5	See Special Field Descriptions .

Special Field Descriptions

The Password field is applicable only for a new users. You cannot use a CSV import to set or update the password for existing users.

Organization role names are comprised of two components, separated by a semicolon:

- Organization name and sub organization name (if applicable), separated by a sequence of "<space><forward slash><space>" like this: " / "
- The role value, selected from the following list:
 - role-name-system-admin (or system-admin)
 - role-name-academic-staff (or academic-staff)
 - role-name-admin (or admin)
 - role-name-av-technician (or av-technician)
 - role-name-license-manager (or license-manager)
 - role-name-scheduler (or scheduler)

A valid Organization-Role-Name would look like these examples:

- Organization / suborganization;role-name-system-admin
- University/department;role-name-academic-staff

Except for Student user imports, you *must* have one organization role name assigned to each user. Additional organization role names may be provided, but are not required. If a user has only one organization role, then you do not need to include the additional commas to "space out" the blank columns.

Student users must NOT have an organization or a role associated with them. Any user without an organization or role is automatically recognized by the ESS as a Student.

CSV Example

Following is an example of a user import CSV file open in Excel:

A	B	C	D	E	F	G	H	I
Last-Name	First-Name	Display-Name	Email	User-Name	Password	Organization-Role-Name1	Organization-Role-Name2	Organization-Role-Name3
Dennis	Abbott	Abbott Dennis	Dennis.Abbott@institution.edu	dennis.abbott	echo360	/ Presenters;role-name-academic-staff		
Glen	Abbott	Abbott Glen	Glen.Abbott@institution.edu	glen.abbott	echo360	/ Presenters;role-name-academic-staff		
Julie	Abbott	Abbott Julie	Julie.Abbott@institution.edu	julie.abbott	echo360	/ Presenters;role-name-academic-staff		
Marion	Abbott	Abbott Marion	Marion.Abbott@institution.edu	marion.abbott	echo360	/ Presenters;role-name-academic-staff		
Martha	Abbott	Abbott Martha	Martha.Abbott@institution.edu	martha.abbott	echo360	/ Presenters;role-name-academic-staff		
Monica	Abbott	Abbott Monica	Monica.Abbott@institution.edu	monica.abbott	echo360	/ Presenters;role-name-academic-staff		
Phyllis	Abbott	Abbott Phyllis	Phyllis.Abbott@institution.edu	phyllis.abbott	echo360	/ Presenters;role-name-academic-staff		
Susan	Abbott	Abbott Susan	Susan.Abbott@institution.edu	susan.abbott	echo360	/ Presenters;role-name-academic-staff		
Troy	Abbott	Abbott Troy	Troy.Abbott@institution.edu	troy.abbott	echo360	/ Presenters;role-name-academic-staff		
Vicki	Abbott	Abbott Vicki	Vicki.Abbott@institution.edu	vicki.abbott	echo360	/ Presenters;role-name-academic-staff		
Wanda	Abbott	Abbott Wanda	Wanda.Abbott@institution.edu	wanda.abbott	echo360	/ Presenters;role-name-academic-staff		
Christine	Abrams	Abrams Christine	Christine.Abrams@institution.edu	christine.abrams	echo360	/ Presenters;role-name-academic-staff		
Gary	Abrams	Abrams Gary	Gary.Abrams@institution.edu	gary.abrams	echo360	/ Presenters;role-name-academic-staff		
Heidi	Abrams	Abrams Heidi	Heidi.Abrams@institution.edu	heidi.abrams	echo360	/ Presenters;role-name-academic-staff		
Howard	Abrams	Abrams Howard	Howard.Abrams@institution.edu	howard.abrams	echo360	/ Presenters;role-name-academic-staff		
Kathryn	Abrams	Abrams Kathryn	Kathryn.Abrams@institution.edu	kathryn.abrams	echo360	/ Presenters;role-name-academic-staff		
Lisa	Abrams	Abrams Lisa	Lisa.Abrams@institution.edu	lisa.abrams	echo360	/ Presenters;role-name-academic-staff		
Max	Abrams	Abrams Max	Max.Abrams@institution.edu	max.abrams	echo360	/ Presenters;role-name-academic-staff		
Patricia	Abrams	Abrams Patricia	Patricia.Abrams@institution.edu	patricia.abrams	echo360	/ Presenters;role-name-academic-staff		
Terri	Abrams	Abrams Terri	Terri.Abrams@institution.edu	terri.abrams	echo360	/ Presenters;role-name-academic-staff		
Tina	Abrams	Abrams Tina	Tina.Abrams@institution.edu	tina.abrams	echo360	/ Presenters;role-name-academic-staff		
Veronica	Abrams	Abrams Veronica	Veronica.Abrams@institution.edu	veronica.abrams	echo360	/ Presenters;role-name-academic-staff		
Alexandra	Adams	Adams Alexandra	Alexandra.Adams@institution.edu	alexandra.adams	echo360	/ Presenters;role-name-academic-staff		
Allison	Adams	Adams Allison	Allison.Adams@institution.edu	allison.adams	echo360	/ Presenters;role-name-academic-staff		
Elisabeth	Adams	Adams Elisabeth	Elisabeth.Adams@institution.edu	elisabeth.adams	echo360	/ Presenters;role-name-academic-staff		
Tony	Adams	Adams Tony	Tony.Adams@institution.edu	tony.adams	echo360	/ Presenters;role-name-academic-staff		
Dwight	Adcock	Adcock Dwight	Dwight.Adcock@institution.edu	dwight.adcock	echo360	/ Presenters;role-name-academic-staff		
Erica	Adcock	Adcock Erica	Erica.Adcock@institution.edu	erica.adcock	echo360	/ Presenters;role-name-academic-staff		
Evan	Adcock	Adcock Evan	Evan.Adcock@institution.edu	evan.adcock	echo360	/ Presenters;role-name-academic-staff		
Pam	Adcock	Adcock Pam	Pam.Adcock@institution.edu	pam.adcock	echo360	/ Presenters;role-name-academic-staff		
Phillip	Adcock	Adcock Phillip	Phillip.Adcock@institution.edu	phillip.adcock	echo360	/ Presenters;role-name-academic-staff		
Sherry	Adcock	Adcock Sherry	Sherry.Adcock@institution.edu	sherry.adcock	echo360	/ Presenters;role-name-academic-staff		

Import Schedules

In this section:

- [Required Configuration](#)
- [Format](#)
- [Import Considerations](#)
- [Updating Schedules via Export then Import](#)
- [CSV Example](#)

Required Configuration

Before you can import schedules into the EchoSystem Server (ESS), you must have already defined the dependent configuration items, including rooms, terms, courses, and sections, among others. For example, the Presenter field in the CSV file must contain either the name or email address of users who already exist in the ESS.

✔ Best Practice: Use Other Exports for Schedule Import Field Data

Because many items in the CSV file must already be defined in the system, you can generate exports from the ESS to provide you with fields to copy and paste into the CSV import file. The advantage of this method is that the copied fields are accurate and already have the proper formatting, reducing errors caused by manual input. If you are generating a list of new schedules to add to the system, you can:

Perform an export of your existing schedules (**Schedule > Schedules > Export**). This will provide a template to work with and show you how the final imported CSV should look.

Use a Room Export (**Configuration > Rooms > Export**) to provide the following fields for copy:

- Campus Name
- Building Name
- Room Name

Use a Section Export (**Schedule > Courses > Export Sections**) to provide the following fields for copy:

- Term Name
- Course Name
- Section Name
- Presenter Email (if needed) - Can be copied from the Instructor Email, Teaching Assistant Email, Guest Presenter Email, and/or Student Presenter Email fields.

Product Group and Properties field data can be obtained by performing an export of your current schedules (**Schedule > Schedules > Export**) and copying the appropriate Product Group/Properties fields to the new schedule import file.

Alternately, if many of the above-listed fields will not differ from your current schedule data, you can run a schedule export, update the necessary fields, and save the file for importing. Be sure to remove the Schedule-ID field for new schedules. See also [Updating Schedules via Export then Import](#).

Format

Importing schedules into the ESS requires that you create a CSV file that contains the following attributes:


- There is one schedule record per row/line of the file;
- The first row/line of the file must have the column names (a header row);
- If you are using a comma-delimited-text file, each field (record value) must separated by a comma;
- If you are using a spreadsheet program such as Microsoft Excel to generate the CSV file, each field must reside in a different column;
- Multiple values within a single field must be separated by a bar. For example, Mon|Wed|Fri to indicate multiple days of the week;
- All fields must contain only UTF-8 ascii characters.


The column headers and field values are as follows; use UTF-8 ascii characters only:

Field Name	Description
------------	-------------

Schedule-ID	System Identifier for the schedule. This cell must be empty for new schedules and is only required if you are updating an existing schedule .
Term-Name	Name of the existing term associated with the schedule. Maximum 50 characters.
Course-Name	Name or Course ID of the existing course associated with the schedule.
Section-Name	Name of the existing section associated with the schedule.
Title	Title to be given to the schedule being created (or updated). Maximum 200 characters.
Description	Description to be given to the schedule being created (or updated). Maximum 1000 characters.
Campus-Name	Name of the existing campus associated with the schedule.
Building-Name	Name of the existing building associated with the schedule.
Room-Name	Name of the existing room where the scheduled capture is to take place.
Recurring	Indicates whether the schedule is recurring or not. Valid values: TRUE and FALSE (not case sensitive).
Start-Date	Date the schedule is to begin. Valid formats include yyyy-mm-dd and mm/dd/yy.
Start-Time	Start time for the scheduled capture. Enter in 24-hour format: hh:mm:ss

<p>End-Time</p> <p>OR</p> <p>Duration</p>	<p>Can either be the time the scheduled capture must end OR the duration of the capture. Enter only one as follows:</p> <ul style="list-style-type: none"> • Enter End-Time in 24 hour format: hh:mm:ss. For example 13:00:00 for 1pm. • Enter Duration (length of time) for the capture. To use Duration instead of End-Time be advised of the following: <ol style="list-style-type: none"> 1. You MUST change the column header to Duration. 2. You must enter an h to indicate hours, or an m to indicate minutes. Any number entered without an indicator is recognized as "seconds" by default. 3. You can only enter a single unit of measure for each schedule, using either minutes OR hours OR seconds. <p>For example:</p> <ul style="list-style-type: none"> • To indicate a schedule lasting 50 minutes, enter 50m into the field. • For a schedule lasting an hour and a half, enter 90m in the field. Do NOT enter "1h 30m". Mixing units will cause the import to fail. • For a schedule lasting two hours, you could enter <i>either</i> 2h or 120m into the field. <p>NOTE: You cannot create a schedule longer than four hours. Any schedules longer than four hours will not be imported.</p>
<p>End-Date</p>	<p>Required only for recurring schedules. Date of the last day for the schedule. Valid format: yyyy-mm-dd or mm/dd/yy.</p>

<p>Days-of-Week</p>	<p>Required only for recurring schedules. Days that the scheduled capture must run.</p> <p>Valid values are three-letter day abbreviations: sun, mon, tue, wed, thu, fri, sat, sun. Separate multiple values with a bar. For example, a Monday, Wednesday, Friday schedule is entered as mon wed fri.</p> <div style="border: 2px solid yellow; padding: 10px;"> <p> Use English Values for Days of the Week</p> <p>You MUST use the English values for days as listed above. Using localized language versions for days of the week will cause the import to fail.</p> </div>
<p>Excluded-Dates</p>	<p>Used for recurring schedules only but not required if not applicable. Specific dates or date range(s) when the schedule should <i>not</i> run. These might include exam dates for a course, school holidays, or spring break. Valid format: <code>yyyymmdd</code> for a single day; <code>yyyymmdd-yyyymmdd</code> for a range. Separate multiple entries with a bar.</p> <p>For example, the entry: <code>20130218 20130324-20130331 20130506-20130510</code> would exclude February 18 (for President's Day), March 24-31 (for Spring Break), and May 6-10 (for final exams).</p>

<p>Status</p>	<p>Indicates the desired status for the schedule being created. Valid values (not case sensitive):</p> <ul style="list-style-type: none"> • Draft - Schedule exists but will not run until activated. • Active - Schedule exists and will run according to configured parameters. • Complete - Schedule end-date has passed or is non-recurring and has already happened. • Trashed - Deletes the schedule from the system. Allows for bulk deletions of schedules. <p>This field is required. For any record where Status is blank, that schedule will not be imported to the system.</p> <div style="border: 2px solid yellow; padding: 10px; background-color: #ffffcc;"> <p> Use English Values for Status</p> <p>You MUST use the English values for Status as listed above. Using localized language versions for the Status field will cause the import to fail.</p> </div>
<p>Presenters</p>	<p>Identifies the presenters for the schedule. Typically this includes the Academic Staff member teaching the course, and possibly one or more Teaching Assistants. Separate multiple values with a bar. Valid formats include:</p> <ul style="list-style-type: none"> • Email address - Email address is recommended as it is less prone to variation and error. • lastname:firstname • Username
<p>Product-Group</p>	<p>Product Group Name for the schedule. To reduce the possibility of entry error, use one of the following two methods to enter this information:</p> <ul style="list-style-type: none"> • Navigate to Configuration > Product Groups, select the name of the group you want to use, then copy the title of the group from the top of the page. • Perform an export of your existing schedules, and copy the desired Product Group information from the export.
<p>Properties</p>	

Not required, but can be used to specify additional capture properties that are not indicated or are different from those provided through the Product Group defaults. Separate multiple properties/values with a bar. For example:

```
Live=true|echo-initially-unavailable=false|Aspect-ratio-override-channel-1=widescreen
```

It does not matter what order the values are entered into this field.

Property values and formats are as follows:

- **live:** Indicates if the schedule is set for live streaming. Valid values are True or False (not case sensitive). Sample entry: live=true. Setting to "true" means schedule will be streamed live if otherwise supported by the assigned room and product group.
- **Echoes-initially-unavailable:** Use to mark the echoes captured by this schedule as initially unavailable. Valid values are True or False (not case sensitive). Sample entry: echoes-initially-unavailable=true. **NOTE:** If you are using Live streaming, do NOT mark this as "true".
- **aspect-ratio-override-channel-1:** Specifies the aspect ratio to use for channel 1 (Primary Display/Secondary Video). Applicable for SCHD captures only. Sample entry: aspect-ratio-override-channel-1=widescreen. Valid values are Standard or Widescreen (not case sensitive).
Standard aspect ratio for display and video = 4:3.
Widescreen aspect ratio for video = 16:9.
Widescreen aspect ratio for display = 16:10.
- **Aspect-ratio-override-channel-2:** Specifies the aspect ratio to use for channel 2, (Primary Video/Secondary Display). Applicable for SCHD captures only. Sample entry: aspect-ratio-override-channel-2=widescreen. Valid values are Standard or Widescreen (not case sensitive).
- **Display-input-resolution-override:** Specifies the resolution to be used for non-SCHD captures that capture Display input (not applicable for audio/video-based captures). Sample entry: display-input-resolution-override=1280x720. Valid values are:
 - 800x600
 - 1024x768
 - 1280x720
 - 1280x768
 - 1280x800
 - 1280x1024
 - 1366x800
 - 1440x900
 - 1600x1200
 - 1680x1050

Import Considerations

If you are importing more than 1,000 schedules, divide the schedules into multiple independent CSV files where each has 1,000 or fewer schedules. Then import the files separately. For example, if you are importing 2,345 schedules, you could divide them into three separate files with 800, 800, and 745 entries. You would then import the three files.

You may also want to consider using separate CSV files for different categorizations of schedules, especially if you have a large number of schedules to import. For example, create one CSV file for all schedules planned for a certain room. In this case, the Campus-Name, Building-Name, and Room-Name fields would be the same for all entries on the spreadsheet. In addition, if the other settings generally remain static for the room across terms (such as Product Groups or Course Names used for the room), you could reuse the spreadsheet for importing subsequent terms' schedules, requiring changes to fewer fields.

Updating Schedules via Export then Import

The Schedules page allows you to export a list of all existing schedules. The generated CSV file contains the same [information and format](#) as the schedule import CSV must contain. This allows you to:

- Create new schedules using existing schedule data:
 - a. Generate an export.
 - b. Remove the Schedule-ID field data
 - c. Update other fields as needed.
 - d. Reimport the file.
- Update existing schedules (for example, set all Draft schedules to Active):
 - a. Generate an export.
 - b. Update necessary fields.
 - c. Reimport the CSV file.
- Delete existing schedules (for example, set all Active schedules to Trashed):
 - a. Generate an export.
 - b. Update the Status field for appropriate schedules to Trashed.
 - c. Reimport the CSV file.

Keep in mind that if you do use a schedule export CSV file as the base from which to work, the Schedule-ID field specifically identifies existing schedules. This means:

- Any field changes made to a row where the Schedule-ID field exists will apply those changes to the existing schedule.
- To create a NEW schedule, be sure the Schedule-ID field is blank. The ESS will create a schedule ID when it creates the schedule.

CSV Example

The figure below shows a portion of a sample CSV file that creates new schedules ready for import. The figure shown is the CSV file open in Microsoft Excel.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Schedule-ID	Term-Name	Course-Name	Section-Name	Title	Description	Campus-Name	Building-Name	Room-Name	Recurring	Start-Date	Start-Time	Duration	End-Date	Days-Of-Week
	2013	Dog Grooming	2000	Dog Grooming (DOG101-200)	Echo360	EchoBuilding	Echo	SCHD/D	TRUE	1/7/13	9:00:00	50m	5/10/13	mon wed fri
	term test	test course	test Section12	test course (test course-test)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	10:00:00	50m	5/10/13	mon wed fri
	term test	test course	test Section12	test course (test course-test)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	11:00:00	50m	5/10/13	mon wed fri
	echo.Summer	Course A: pca	CRS101.0001	Course A: pcap test (CRS101)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	12:00:00	50m	5/10/13	mon wed fri
	2013	Dog Grooming	2000	Dog Grooming (DOG101-200)	Echo360	EchoBuilding	Echo	SCHD/D	TRUE	1/7/13	13:00:00	50m	5/10/13	mon wed fri
	2013	Dog Grooming	2000	Dog Grooming (DOG101-200)	Echo360	EchoBuilding	Echo	SCHD/D	TRUE	1/7/13	14:00:00	50m	5/10/13	mon wed fri
	2013	Dog Grooming	2000	Dog Grooming (DOG101-200)	Echo360	EchoBuilding	Echo	SCHD/D	TRUE	1/7/13	15:00:00	50m	5/10/13	mon wed fri
	2013	Intro to Lingui	UrsuMWF sect	Intro to Linguistics (LING 10)	echo.campus	echo.building	Echo	Device 1	TRUE	1/7/13	16:00:00	50m	5/10/13	mon wed fri
	aptus term	EC-course	ECAllow All	EC-course (ec-ECAllow All)	echo.campus	echo.building	Echo	Device 1	TRUE	1/7/13	9:00:00	50m	5/10/13	mon wed fri
	2013	Curso tradicio	idap	Curso tradicional en espa	Öecho.campus	echo.building	Echo	Device 1	TRUE	1/7/13	10:00:00	50m	5/10/13	mon wed fri
	2013	Nithya Course	Section Name	Nithya Course (Media Identifi	echo.campus	echo.building	Echo	Device 1	FALSE	1/7/13	11:00:00	50m	5/10/13	mon wed fri
	2013	Nithya Course	Section Name	Nithya Course (Media Identifi	echo.campus	echo.building	Echo	Device 1	FALSE	1/7/13	12:00:00	50m	5/10/13	mon wed fri
	2013	Nithya Course	Section Name	Nithya Course (Media Identifi	echo.campus	echo.building	Echo	Device 1	FALSE	1/7/13	13:00:00	50m	5/10/13	mon wed fri
	2013	Nithya Course	Monitor and ci	Monitor and capture tab	echo.campus	echo.building	Echo	Device 1	FALSE	1/7/13	8:00:00	80m	5/10/13	tue thu
	2013	Nithya Course	Section Name	Nithya Course (Media Identifi	echo.campus	echo.building	Echo	Device 1	FALSE	1/7/13	9:30:00	80m	5/10/13	tue thu
	2013	Org media del	org delete exp	Org media delete Nithya (dsf	Echo360	EchoBuilding	Echo	Device 2	FALSE	1/7/13	11:00:00	80m	5/10/13	tue thu
	2013	Nithya Course	section test us	test users default	Echo360	EchoBuilding	Echo	Device 2	FALSE	1/7/13	13:00:00	80m	5/10/13	tue thu
	aptus term	EC-course	ECSeamless	EC-course (ec-ECSeamless)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	14:30:00	80m	5/10/13	tue thu
	2013	security	Seamless	security (sec101-Seamless)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	8:00:00	80m	5/10/13	tue thu
	2013	security	Auth read	security (sec101-Auth read)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	9:30:00	80m	5/10/13	tue thu
	2013	security	Seamless	security (sec101-Seamless)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	11:00:00	80m	5/10/13	tue thu
	2013	security	Allow all	security (sec101-Allow all) 2	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	13:00:00	80m	5/10/13	tue thu
	2013	security	Allow all	security (sec101-Allow all) 2	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	14:30:00	80m	5/10/13	tue thu
	2013	security	Seamless	security (sec101-Seamless)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	8:00:00	80m	5/10/13	tue thu
	2013	security	Allow all	security (sec101-Allow all) 2	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	9:30:00	80m	5/10/13	tue thu
	2013	security	Seamless	security (sec101-Seamless)	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	11:00:00	80m	5/10/13	tue thu
	2013	security	Allow all	security (sec101-Allow all) 2	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	13:00:00	80m	5/10/13	tue thu
	2013	security	Auth read	security (sec101-Auth read)	echo.campus	echo.building	Echo	Device 1	TRUE	1/7/13	14:30:00	80m	5/10/13	tue thu
	2013	security	Auth read	security (sec101-Auth read)	echo.campus	echo.building	Echo	Device 1	TRUE	1/7/13	13:00:00	80m	5/10/13	tue thu
	2013	security	Auth read	security (sec101-Auth read)	echo.campus	echo.building	Echo	Device 1	TRUE	1/7/13	14:30:00	80m	5/10/13	tue thu
	2013	security	idap	security (sec101-idap) 2013	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	18:00:00	3h	5/10/13	mon wed fri
	2013	security	idap	security (sec101-idap) 2013	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	18:00:00	3h	5/10/13	mon wed fri
	2013	security	idap	security (sec101-idap) 2013	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	18:00:00	3h	5/10/13	mon wed fri
	2013	security	idap	security (sec101-idap) 2013	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	18:00:00	3h	5/10/13	mon wed fri
	2013	security	idap	security (sec101-idap) 2013	Echo360	EchoBuilding	Echo	SCHD/D	FALSE	1/7/13	18:00:00	3h	5/10/13	mon wed fri
	2013	security	idap	security (sec101-idap) 2013	Echo360	EchoBuilding	Echo	Device 2	FALSE	1/7/13	18:00:00	3h	5/10/13	mon wed fri

There are also two sample schedule import files attached to this page; a [sample using End-Time](#) and a [sample using Duration](#) for the schedules listed.

Viewing CSV Exports in Other Languages

In this section:

- [Overview](#)
- [Setting Encoding for Excel and Open Office](#)

Overview

EchoCenter supports viewing the system and its components in the following languages: Arabic, English, French, German, Japanese and Spanish.

The CSV export functions are configured for UTF-8 character encoding. If you plan to view an exported CSV file in Arabic or Japanese, there are specific choices you must make in order to import the CSV file into the spreadsheet program properly.

While we did not test all operating system and software combinations, the information provided here should provide sufficient guidelines to apply to other configurations as needed.

The instructions provided below apply to all CSV exports from the ESS, including object exports such as user or course export, as well as Personal Capture licensing exports and all report exports to CSV.

Encoding Configuration is NOT supported for Excel on Mac OS X

The language encoding selection process noted here is not supported on Excel for Mac OS X.

Setting Encoding for Excel and Open Office

Use the below instructions to set language encoding for Excel on Windows 7, or Open Office on either Windows 7 or Mac OS X. The steps provided here were generated for Open Office 3.4.1.

Language	Operating System	Software	Steps
Arabic	Windows 7 SP1	Excel 2007, 2013	<p>Choose language encoding during CSV import</p> <ol style="list-style-type: none"> 1. Create a new worksheet. This activates the buttons in the tabs. 2. Click the Data tab. 3. Click the From Text button. 4. Navigate to the CSV file you exported from the ESS, and double-click it, or highlight it and click Import. The Text Import Wizard appears. 5. Select Delimited for the data type. 6. In the File Origin drop-down list, select Unicode (UTF-8). 7. Click Next 8. From the list of Delimiters, select Comma and de-select Tab (selected by default). 9. Click Finish.
Arabic	Windows 7 SP1, Mac OS X 10.6.8	Open Office 3.4.1	<ol style="list-style-type: none"> 1. Create a new spreadsheet. 2. Click the Open icon. 3. From the Character Set drop-down list in the Import section, select Unicode UTF-8. 4. From the list of Separated By options, select Comma. 5. Click OK
Arabic	Mac OS X 10.6.8	Excel 2011	Unsupported
Japanese	Windows 7 SP1	Excel 2007, 2013	Option 1: Choose language encoding during CSV import

1. Create a new worksheet. This activates the buttons in the tabs.
2. Click the **Data** tab.
3. Click the **From Text** button.
4. Navigate to the CSV file you exported from the ESS, and double-click it, or highlight it and click **Import**. The Text Import Wizard appears.
5. Select **Delimited** for the data type.
6. In the **File Origin** drop-down list, select **Japanese (Shift-JIS)**.
7. Click **Next**
8. From the list of Delimiters, select **Comma** and de-select **Tab** (selected by default).
9. Click **Finish**.

Option 2: Set language encoding for Excel

			<ol style="list-style-type: none"> 1. Open Excel Options, either by clicking the Office logo in the upper left corner, or using the File tab. 2. Open the Language Settings (select Popular > Language Settings or select Language in the left sidebar, depending on the Excel version you are using). 3. In the Editing Languages section, select Japanese from the drop-down list, and click Add. 4. If appropriate, highlight Japanese from the Editing Language list and click Set as Default. 5. Click OK.
Japanese	Windows 7 SP1, Mac OS X 10.6.8	Open Office 3.4.1	<ol style="list-style-type: none"> 1. Create a new spreadsheet. 2. Click the Open icon. 3. From the Character Set drop-down list in the Import section, select Unicode UTF-8. 4. From the list of Separated By options, select Comma. 5. Click OK.
Japanese	Mac OS X 10.6.8	Excel 2011	Unsupported

Manage Licenses

In this section:

- [Overview](#)
- [License Types](#)
- [Download and Update Licenses](#)
- [Interpreting the Licensing Interface](#)

Overview

Licensing your EchoSystem installation involves the following phases:

1. Purchasing the appropriate types of licenses for your configuration.
2. [Downloading the licenses](#) to your EchoSystem Server (ESS). Even if you have an existing licensed ESS system, you may need to update your license configuration to accommodate any system upgrades, such as to a new ESS version with associated updated components.
3. Assigning licenses to [rooms](#) or [individuals](#) as necessary. If your capture licenses are all Site licenses, you do not need to configure these further. If you purchased Personal Capture licenses, you should plan to review and, if necessary, adjust those individual license assignments.

License Types

Some of the licenses you can purchase are service-type licenses, meaning they apply to a single server or service. Those licenses are listed below.

- **Echo360 Feature Licenses** - Feature licenses provide access to specific Echo360 features including:
 - **Media Import (EMI) License** - Allows users to import external media files to the ESS for distribution along with the section's Echoes.
 - **Collaboration and Statistics Server** (sometimes also called **HEMS**) - Allows for the use of [collaboration services](#) such as discussions for Echoes and chat for live webcasting.
 - **Download Presentation License** - Allows users to download the EchoPlayer browser-based playback of echoes (rather than just a podcast or vodcast download). The option to provide EchoPlayer downloads is configurable at the Organization and Section level.

Once these licenses are purchased and downloaded to the ESS, no more configuration is required.

The other licenses required for your system are capture-type licenses and apply to the devices used to capture classroom activity. These licenses can be either "Site" or "Room" licenses. Site licenses apply to all installations of the licensed capture device and require no further configuration. Room licenses are purchased in bundles and must be assigned to each room where the capture device is located.

Capture licenses include the following:

- **Capture Appliance Licenses** - Allows for use of the [EchoSystem Capture Appliance](#) (the "1G appliance").
- **SafeCapture HD Licenses** - Allow for use of the [EchoSystem SafeCapture HD](#) (the "2G appliance").
- **Classroom Capture Licenses** (formerly called Software Capture) - Allows for the installation and use of [Classroom Capture Software](#) on the podium PC in a lecture venue.

The remaining type of license available is a **Personal Capture license**. These are used to license individuals to use [Personal Capture](#) to prepare and publish presentations for their courses using their personal PC or laptop. These are available only as license bundles that are then assigned to individual staff members.

Download and Update Licenses

After you purchase new licenses or update your existing licenses, your account information is updated on the Echo360 license control server (LCS). Your account license information is recognized using the *Customer Identifier* you receive from Echo360.

Licensing EchoSystem is required to begin capturing lectures. Before downloading and updating your license information, you must:

- Purchase the appropriate licenses from Echo360. Contact [Echo360 Technical Support](#) for more information.
- Enter your *Customer Identifier* into the [System Settings](#).
- Have outbound Internet access for the ESS, to allow the ESS to contact the LCS to update your license information.

To download and update your licenses:

1. Log in to the ESS using the default Administrator account: **ess@echo360.com**
2. Navigate to **System > Licensing**.
3. Click **Update**. If licensing is successful, a message appears above the license list indicating that the licensing information was updated successfully.

Interpreting the Licensing Interface

The Licensing page lists all of your available licenses, both server-type and capture-type licenses as well as any Personal Capture (formerly called EchoCapture Personal or PCAP) licenses you may have purchased. The Limitations field on the Licensing page identifies the Device Type of the license, and whether the license is a Site License or a Room License. Room Licenses are indicated in the Limitations list by identifying a **Target** of "ROOM" and showing a **Quantity** of total licenses in the license bundle. All Personal Capture licenses have a **Target** of "PRESENTER".

Because the license names are not always intuitive, the following figure shows a sample License page, and includes highlighting to help you identify which licenses apply to what features.

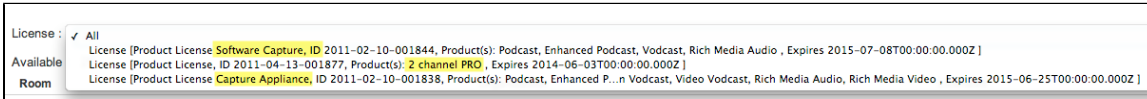
Name	Products	Limitations
Features License, ID 2013-11-01-002032, HEMS		N/A – Site License
Product License, ID 2013-04-22-001877, Product(s): 2 channel PRO	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, Video Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Video, EchoPlayer Dual Video, EchoPlayer Dual Display, Live Display, Live Dual Display, Live Video, Live Display and Video, Live Dual Video	Target: ROOM, Quantity: 20; Device Type: SafeCapture HD
Wowza FULL 3.0 License, ID 2013-12-06-001887		1 Pro Unlimited edition
Product License EMI , ID 2011-08-04-001138, External Media Ingest	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, Video Podcast, EchoPlayer Video, EchoPlayer Display, EchoPlayer Display and Video	Device Type: Media Import
Product License Capture Appliance , ID 2011-08-04-001838, Product(s)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, Video Podcast, EchoPlayer Video, EchoPlayer Display, EchoPlayer Display and Video	Target: ROOM, Quantity: 20; Device Type: Capture Appliance
Product License - PCAP , ID 2011-08-04-001826, Product(s): Podcast	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	Target: PRESENTER, Quantity: 25; Device Type: Personal Capture
Features License, ID: 2013-12-12-000021, Download Presentation		N/A – Site License
Product License Classroom Capture , ID 2014-01-08-001844, Product(s)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	Target: ROOM, Quantity: 10; Device Type: Classroom Capture

The following table lists the terms in each of the license names that identifies the kind of license it is.

If This Term Appears in the License Name...	It is a license for this device or service
Product(s): 2 channel PRO	SafeCapture HD
EMI and External Media Ingest	External Media Import or EMI
HEMS	Collaboration and Statistics Service
PCAP	Personal Capture
Download Presentation	Provides an EchoPlayer checkbox in the EchoCenter section of the Organization Settings and Section Settings pages. Allows users to download the full EchoPlayer for an echo.
Capture Appliance	EchoSystem Capture Appliance
Software Capture	Classroom Capture

Understanding the identifier in the License Name is important, because when you assign room licenses, you are presented with a drop-down list containing only the license name. You will need to know which license to select for assignment to each room.

The below figure shows a sample drop-down list from the [Room Assignments licensing page](#), with highlights of the License Name text that identifies the license type, as defined above. The same drop-down list appears when you [assign a capture appliance](#) or [classroom capture installation](#) to a room.



The interface for [assigning PCAP licenses to multiple users](#) from the Users list also uses a drop-down list to select a Personal Capture licenses, but only Personal Capture license bundles appear in that list, so there is no confusion as to which license type to select.

License Presenters for Personal Capture

In this section:

- [Overview](#)
- [Methods for Personal Capture Licensing](#)
 - [License Presenters via the Licensing Page](#)
 - [License Presenters via the Users Page](#)

Overview

In order to use [Personal Capture](#) (formerly called Personal Capture or EchoCapture Personal) to record and publish presentations, Academic Staff members must have a Personal Capture license assigned to them. There are [multiple methods](#) for assigning (and revoking) Personal Capture licenses, as outlined below.

Personal Capture licenses are available as site licenses, or by purchasing a license pack. Site licenses apply across all Academic Staff and no further configuration is required. If you purchase a license pack, you must:

- [Download and update your licenses on the ESS.](#)
- Assign the licenses to the Academic Staff who are using Personal Capture.
- If necessary, revoke licenses from Academic Staff who no longer need to be licensed for Personal Capture.

The ESS licensing interface keeps track of and displays the total number of licenses in the license pack along with the number of licenses still available for assignment.

Licensed Personal Capture users are referred to as "Presenters". These users may or may not be assigned a Presenter role in other parts of the interface (such as for the Section or the Schedule), but all licensed Personal Capture Presenters *must* have the Academic Staff role assigned to their user account. Keep in mind, however, that in order to publish Personal Capture recordings, Presenters must be associated with a Section or Schedule. See also [Server Configuration for Presenters](#).

For more information about user roles, see [Manage Users](#). For detailed information about license options, contact [Echo360 Technical Support](#).

i Who Can Do This?

- System Administrator
- User with both Admin & License Manager roles

If a user has only the License Manager role assigned, they can *view* Personal Capture license assignments but cannot assign or revoke licenses.

Users must possess both Admin & License Manager roles to assign and revoke Personal Capture licenses. Furthermore, the user can only assign licenses to staff belonging to the same organization for which their roles apply. If the Admin & License Manager roles are assigned at the root organization, the user can assign/revoke licenses for staff belonging to both the root and sub-organizations. For information on assigning organizations and roles for a user, as well as the privileges associated with each role, see [Manage Users](#).

Methods for Personal Capture Licensing

There are four methods for assigning Personal Capture licenses to Academic Staff, two through the [Licenses page](#) and two through the [Users page](#). Brief instructions for each are provided below with links to more detailed instructions if needed.

License Presenters via the Licensing Page

The Licensing page lets you assign and revoke Personal Capture license for individual users, or use a CSV file import to bulk assign/revoke Personal Capture licenses.

Assign or Revoke Licenses for Individual Users

1. Navigate to **System > Licensing**.
2. Click **Presenter Assignments**.
3. To **assign** a license, in the Assign Licenses section of the page:
 - a. Use the **Presenter** drop-down list to search for and select an Academic Staff user.
 - b. Click **Assign** next to the Personal Capture license bundle you want to assign to the user.
4. To **revoke** a license, in the Revoke Licenses section of the page;
 - a. Find the Presenter whose license you want to revoke. If necessary, use the drop-down lists to narrow the list of currently licensed presenters.
 - b. Click **Revoke** next to the user to revoke their license.

For more detailed instructions, see [License Individual Presenters via Licensing Page](#).

Assign or Revoke Licenses for Multiple Users via CSV Import

1. Prepare and save a CSV file for import using the format described below.
2. Navigate to **System > Licensing**.
3. Click **Presenter Assignments**.
4. Click **Import**.
5. Click **Choose File** to select the CSV file for import.
6. Click **Import**.

See [Bulk License Presenters via CSV Import](#) for more detailed instructions.

The CSV file must include the fields shown in the below example table. Formatting and data information for each field appears below the table.

Username	Action	License ID
user1@example.com	assign	ID 2013-07-05-012345
user2@example.com	assign	ID 2013-07-05-012345
User Name 1	revoke	ID 2013-07-05-012346
User Name 2	revokeall	
user3@example.com	autoassign	

Username can be either the presenter's email address or the User Name string identifier that appears in the User Account section of the [user profile](#). We recommend using email address as it tends to vary less and is less prone to entry error.

Action can include the following:

- **assign** - Assigns the specified license ID to the user. The License ID field must be populated with a valid Personal Capture license ID.
- **autoassign** - Assigns the first available Personal Capture license to the user. License ID field should be blank, but will be ignored if populated. The system will show an error if/when all Personal Capture licenses are currently assigned or if the username is invalid.
- **revoke** - Removes the specified license ID from the user. The License ID field must be populated with Personal Capture license ID being revoked.
- **revokeall** - Removes all associated Personal Capture licenses from the user. License ID field should be blank, but will be ignored if populated.

License ID must use the following format: ID yyyy-mm-dd-xxxxxxx. The License ID is visible on the Licensing page of the ESS, listed as the PCAP Product License.

If you already have licensed Personal Capture users in the system, we recommend you generate an **Export** from the Presenter Assignments page in order to have a template of a properly formatted file.

License Presenters via the Users Page

The Users page lets you access user profiles and edit them to license each Academic Staff member, or to select multiple users at once and assign or revoke Personal Capture licenses.

Assign or Revoke Licenses on Individual User Profiles

1. Navigate to **Configuration > Users**.
2. In the Staff tab, find the user you want to license and click **edit**.
3. In the Personal Capture Licenses section of the page, check or uncheck listed Personal Capture licenses to assign or revoke licensing respectively.
4. When finished, click **Save**.

See [License Individual Presenters via User Profile](#) for more details.

If you do not see a Personal Capture Licenses section on the [Edit User page](#), be sure the user is assigned the Academic Staff role. Only Academic Staff can be assigned Personal Capture licenses.

Assign Licenses for Multiple Users via Users Page

1. Navigate to **Configuration > Users**.

2. In the Staff tab, click the checkbox for the Academic Staff users you want to license.
3. Select **Assign Personal Capture Presenter License** from the Actions drop-down list at the bottom of the page.
4. An Assign License dialog box appears. From the **License** drop-down list, select a license then click **Continue**.

When the Users page refreshes, the selected users now show assigned Personal Capture licenses in the Assigned Licenses column.

Revoke Licenses for Multiple Users via Users Page

1. Navigate to **Configuration > Users**.
2. In the Staff tab, click the checkbox for the Academic Staff users whose licenses you want to revoke.
3. Select **Revoke All Personal Capture Presenter Licenses** from the Actions drop-down list at the bottom of the page.

When the Users page refreshes, the Assigned Licenses column should be blank for the selected users, indicating all Personal Capture licenses were revoked.

See [Bulk License Presenters via Users Page](#) for more details.

License Individual Presenters via Licensing Page

In this section:

- [Overview](#)
- [Assign Personal Capture Licenses](#)
- [Revoke Personal Capture Licenses](#)

Overview

In order to use [Personal Software Capture](#) to record and publish presentations for students, Academic Staff members must have a [Personal Capture license assigned to them](#).

The Licensing page provides two methods

- Find and select each Presenter listed and assign or revoke a license
- [Use a CSV file import to bulk assign and revoke licenses](#).

The instructions on this page cover using the Licensing page to [assign](#) or [revoke](#) Personal Capture licenses to Academic Staff members.

Assign Personal Capture Licenses

The procedure below identifies the steps used in assigning Personal Capture licenses through the ESS Licensing interface.

Before beginning, you may want to navigate to **Configuration > Users** to verify that the users to whom you want to assign Personal Capture licenses have been [added to EchoSystem](#) as Academic Staff.

1. Log in to the ESS.
2. Navigate to **System > Licensing** as shown in the figure below.

Licenses			
Name	Products	Limitations	Expiration Time
Product License - PCAP S5, ID 2013-02-27-001414, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	Target: PRESENTER, Quantity: 1000; Device Type: Personal Capture	3/26/13 8:00 PM (2 months, 10 days ago)
Product License, ID 2013-02-27-001020, Product(s): SC	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, Video Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Video, EchoPlayer Dual Display, EchoPlayer Dual Video, Live Display, Live Dual Display, Live Video, Live Display and Video, Live Dual Video	Target: ROOM, Quantity: 10; Device Type: SafeCapture HD	6/2/14 8:00 PM (in 11 months, 27 days)
Product License - PCAP S2, ID 2013-02-27-001410, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	Target: PRESENTER, Quantity: 2; Device Type: Personal Capture	12/31/14 7:00 PM (in 1 year, 6 months)
Features License, ID 2013-02-27-001021, HEMS		N/A - Site License	4/29/15 8:00 PM (in 1 year, 10 months)
Wowza 3.0 License, ID 2013-02-27-001017		1 Pro Unlimited edition	6/2/15 8:00 PM (in 1 year, 11 months)
Product License - PCAP S1, ID 2013-02-27-001019, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	Target: PRESENTER, Quantity: 1000; Device Type: Personal Capture	6/24/15 8:00 PM (in 2 years, 0 months)
Product License Capture Appliance, ID 2013-02-27-001018, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, Video Podcast, EchoPlayer Video, EchoPlayer Display, EchoPlayer Display and Video	Target: ROOM, Quantity: 10; Device Type: Capture Appliance	6/24/15 8:00 PM (in 2 years, 0 months)
Product License - PCAP S3, ID 2013-02-27-001412, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	Target: PRESENTER, Quantity: 1000; Device Type: Personal Capture	6/24/15 8:00 PM (in 2 years, 0 months)
Product License - PCAP S4, ID 2013-02-27-001413, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	Target: PRESENTER, Quantity: 1000; Device Type: Personal Capture	6/24/15 8:00 PM (in 2 years, 0 months)
Product License - PCAP S6, ID 2013-02-27-001415, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	Target: PRESENTER, Quantity: 1000; Device Type: Personal Capture	6/24/15 8:00 PM (in 2 years, 0 months)
Product License Classroom Capture, ID 2013-02-27-001018, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video	Target: ROOM, Quantity: 10; Device Type: Classroom Capture	7/7/15 8:00 PM (in 2 years, 1 month)
Product License Media Import, ID 2013-02-27-001018, Pro	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, Video Podcast, EchoPlayer Video, EchoPlayer Display, EchoPlayer Display and Video	Device Type: Media Import	1/11/19 7:00 PM (in 5 years, 7 months)

View: 20 Licenses per Page 1 - 12 of 12

[Update](#)
[Room Assignments](#)
[Presenter Assignments](#)

3. Click **Presenter Assignments**. The Manage Presenter Licenses page appears, shown in the below figure.

Licensing > Manage Presenter Licenses

Manage Presenter Licenses

Assign Licenses

Select presenter then assign license from list. Search for presenter using partial first name, last name and/or email address.

Presenter :

License	Expiration Time	Total	Available	
Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	200	197	Assign
Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	20	18	Assign

Revoke Licenses

Presenter : Organization : License : [Search](#)

[Clear](#)

Presenter	Organizations	License Name	Expiration Time	
Bobby, Hill (Bobby.Hill@ogusdelight.com)	echo360 / Presenters	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
Nagaraj, Shruithi (snagaraj@echo360.com)	echo360 / Shruithi	Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	Revoke
Rajaput, Uday (uday@aptus.in)	echo360; echo360 / Aptus	Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	Revoke
Rajaput, Uday (uday@aptus.in)	echo360; echo360 / Aptus	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
thornton, denice (dthornton@echo360.com)	echo360; echo360 / denice	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke

[Done](#)

4. In the Assign Licenses section of the page, select the Presenter whom you want to license from the **Presenter** drop-down list. **Search** for Presenters by typing first or last name or email address information. The drop-down list narrows to fit the criteria you enter, as shown in the below figure.

Licensing > Manage Presenter Licenses

Manage Presenter Licenses

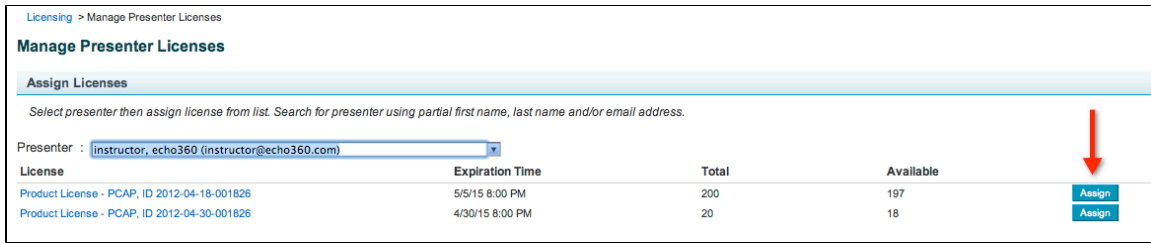
Assign Licenses

Select presenter then assign license from list. Search for presenter using partial first name, last name and/or email address.

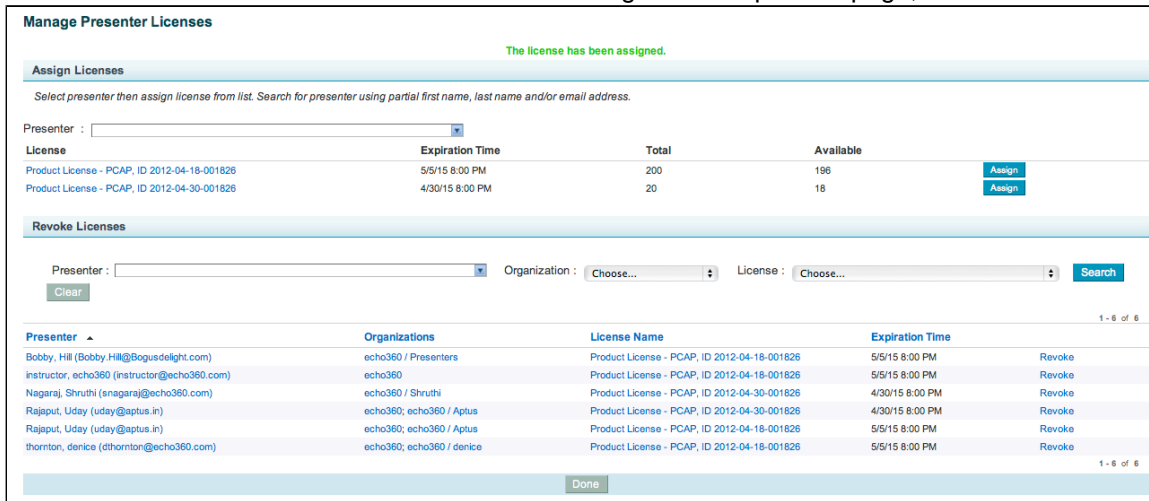
Presenter :

License	Expiration Time	Total	Available	
Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	200	197	Assign
Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	20	18	Assign

5. Once the Presenter you want to license appears in the Presenter field, click the **Assign** button that corresponds to the license you are assigning that Presenter, as shown in the below figure.



- The selected Presenter is now licensed. Notice that the selected Presenter now appears in the Presenter list in the [Revoke Licenses](#) section of the page, and that the number of available licenses has been decremented. You should also see a success message at the top of the page, as shown in the below figure.



- Repeat the above steps to assign a license to another Presenter. You can assign licenses to one Presenter at a time. When you are finished, click **Done** to return to the Licenses page.

Revoke Personal Capture Licenses

The procedure below identifies the steps used in revoking Presenter licenses through the ESS Licensing interface.

- Log in to the ESS.
- Navigate to **System > Licensing**.
- Click **Presenter Assignments**. The Manage Presenter Licenses page appears.
- In the Revoke Licenses section of the page, select the Presenter whose license you want to revoke. If the Presenter list is very long, you can sort the list, or you can narrow the list in the following ways:
 - Use the **Organization** and/or **License** drop-down lists to identify specific sets of Presenters to choose from, then click **Search**.
 - Search for Presenters by typing first or last name or email address information in the Presenter drop-down list. The drop-down list narrows to fit the criteria you enter, as shown in the below figure. Selecting a Presenter from the drop-down list, then clicking **Search** narrows the list to only that Presenter.

Licensing > Manage Presenter Licenses

Manage Presenter Licenses

Assign Licenses

Select presenter then assign license from list. Search for presenter using partial first name, last name and/or email address.

Presenter :

License	Expiration Time	Total	Available	
Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	200	196	Assign
Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	20	18	Assign

Revoke Licenses

Presenter : Organization : License :

[Search](#)

Presenter	License Name	Expiration Time	
Bobby, Hill (Bobby.Hill@Bogusdelight.com)	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
Instructor, echo360 (instructor@echo360.com)	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
Nagaraj, Shruthi (snagaraj@echo360.com)	Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	Revoke
Rajaput, Uday (uday@aptus.in)	Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	Revoke
Rajaput, Uday (uday@aptus.in)	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
thornton, denice (dthornton@echo360.com)	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke

[Done](#)

- Click the **Revoke** link associated with each Presenter whose license you want to revoke, as shown in the below figure.

Revoke Licenses

Presenter : Organization : License :

[Search](#) [Clear](#)

Presenter	Organizations	License Name	Expiration Time	
Bobby, Hill (Bobby.Hill@Bogusdelight.com)	echo360 / Presenters	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
Instructor, echo360 (instructor@echo360.com)	echo360	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
Nagaraj, Shruthi (snagaraj@echo360.com)	echo360 / Shruthi	Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	Revoke
Rajaput, Uday (uday@aptus.in)	echo360; echo360 / Aptus	Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	Revoke
Rajaput, Uday (uday@aptus.in)	echo360; echo360 / Aptus	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
thornton, denice (dthornton@echo360.com)	echo360; echo360 / denice	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke

[Done](#)

- The selected Presenter's license is revoked. Notice that the selected Presenter no longer appears in the Presenter list in the Revoke Licenses section of the page, and that the number of available licenses has been incremented to reflect the newly available license. You should also see a success message at the top of the page, as shown in the below figure.

Licensing > Manage Presenter Licenses

Manage Presenter Licenses

License assigned to instructor, echo360 has been revoked.

Assign Licenses

Select presenter then assign license from list. Search for presenter using partial first name, last name and/or email address.

Presenter :

License	Expiration Time	Total	Available	
Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	200	197	Assign
Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	20	18	Assign

Revoke Licenses

Presenter : Organization : License :

[Clear](#) [Search](#)

Presenter	Organizations	License Name	Expiration Time	
Bobby, Hill (Bobby.Hill@Bogusdelight.com)	echo360 / Presenters	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
Nagaraj, Shruthi (snagaraj@echo360.com)	echo360 / Shruthi	Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	Revoke
Rajaput, Uday (uday@aptus.in)	echo360; echo360 / Aptus	Product License - PCAP, ID 2012-04-30-001826	4/30/15 8:00 PM	Revoke
Rajaput, Uday (uday@aptus.in)	echo360; echo360 / Aptus	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke
thornton, denice (dthornton@echo360.com)	echo360; echo360 / denice	Product License - PCAP, ID 2012-04-18-001826	5/5/15 8:00 PM	Revoke

[Done](#)

- If you are finished, click **Done** to return to the Licensing page. You can also continue to revoke other licenses,

or you can [assign \(or re-assign\) licenses](#) as necessary.

Bulk License Presenters via CSV Import

In this section:

- [Overview](#)
- [Format](#)
- [Perform a Personal Capture Licensing Import](#)
- [Tips for Creating a Properly Formatted CSV File](#)

Overview

In order to use [Personal Software Capture](#) to record and publish presentations for students, Academic Staff members must have a [Personal Capture license assigned to them](#).

The Licensing page of the EchoSystem Server (ESS) provides two methods for licensing presenters for Personal Capture:

- Find and [select each Presenter listed and assign or revoke a license](#)
- Use a CSV file import to bulk assign and revoke licenses.

The instructions on this page cover running a CSV import from the Manage Presenter Licenses page to assign or revoke Personal Capture licenses.

To open the Manage Presenter Licenses page, navigate to **System > Licensing** and click **Presenter Assignments**

The **Import** button resides at the bottom of the page.

There is also an **Export** button that allows you to export a list of currently licensed Personal Capture users. You may want to export a list of currently licensed Personal Capture users to generate a properly formatted CSV file. You can then edit this file for import.

Format

Using a CSV import to bulk assign and revoke licenses for users requires the use of a properly formatted CSV file. The CSV file must include the fields described in the following table. As noted above, it might be easier for you run an export of currently licensed users, then edit this file for import.

Field Name	Description
Username	Can be the user email address or the User Name string identifier that appears in the User Account section of the user profile . Example entry: instructor1@example.com or Instructor Name. We recommend using email address because there is less variance and chance for erroneous entry.

Action	<p>Indicates the action to be taken for the user. Valid actions include:</p> <ul style="list-style-type: none"> • assign - Assigns the specified License ID to the user. License ID field must be populated. • autoassign - Assigns the first available license to the user. License ID field should not be populated but will be ignored if it is. • revoke - Revokes the specified License ID from the user. License ID field must be populated. • revokeall - Revokes ALL assigned licenses from the user. License ID field should not be populated but will be ignored if it is.
License ID	<p>Identifies the Personal Capture license to be assigned or revoked. The License ID must use the following format: ID yyyy-mm-dd-xxxxxxx. Example entry: ID 2013-07-05-012345</p>

The CSV file should appear similar to the table shown below.

Username	Action	License ID
instructor1@example.com	assign	ID 2013-07-05-012345
instructor@example.com	assign	ID 2013-07-05-012345
User Name 1	revoke	ID 2013-07-05-012346
User Name 2	revoke	ID 2013-07-05-012346
instructor3@example.com	autoassign	
User Name 4	revokeall	

There are ways to use existing system information to generate a Personal Capture license import file. See [Bulk License Presenters via CSV Import#Tips for Creating a Properly Formatted CSV File](#) for some suggestions.

Perform a Personal Capture Licensing Import

Once you have generated the *.csv file(s) to assign and/or revoke Personal Capture licenses as necessary, use the following procedure to import the file.

1. Navigate to **System > Licensing**.
2. Click **Presenter Assignments**.
3. Click **Import**. The Import Presenter Licenses page appears as shown in the below figure.

4. Click **Choose File**, then navigate to and select the CSV file for import.
5. Click **Import**.
6. The status of the import appears in the progress window on the page, including any rows that are not processed and the error generated. Make note of these so that you can either fix the file for re-import, or [license those presenters individually](#).
7. When the import is complete, click **Done**.

The Manage Presenter Licenses page reappears, showing the following:

- The presenters who were licensed during the import now appear in the Revoke Licenses list, indicating they have licenses assigned to them.
- In addition the licenses listed at the top of the page should have updated **Total** and **Available** license counts, indicating that licenses were assigned and/or revoked during the import process.

Tips for Creating a Properly Formatted CSV File

There are a number of different ways to create a CSV file that is properly formatted to use for bulk assigning or revoking Personal Capture licenses. Besides doing so manually, you can use some of the Export functionality in the ESS to assist you in creating the file. The tips provided here assume you are using Microsoft Excel or other spreadsheet program to generate the file, then saving it as a ***.csv** file.

Export Existing Personal Capture Users

As stated in the Overview, the Manage Presenter Licenses page contains an Export button that generates a list of currently licensed Personal Capture users in CSV format. Opened in Excel, this CSV file appears as shown in the below figure:

	A	B	C	D	E
1	Username	Action	License ID		
2	admin root and sub	assign	ID 2013-02-27-001019		
3	anup	assign	ID 2013-02-27-001019		
4	aptus.instructor	assign	ID 2013-02-27-001019		
5	cmarrelli	assign	ID 2013-02-27-001019		
6	dAS	assign	ID 2013-02-27-001019		
7	dASnGP	assign	ID 2013-02-27-001019		
8	dASnGProot	assign	ID 2013-02-27-001019		
9	dASnINroot	assign	ID 2013-02-27-001019		
10	dASnSP	assign	ID 2013-02-27-001019		
11	dASnSProot	assign	ID 2013-02-27-001019		
12	dASnTA	assign	ID 2013-02-27-001019		
13	dASnTArroot	assign	ID 2013-02-27-001019		
14	dASroot	assign	ID 2013-02-27-001019		
15	dmitchell	assign	ID 2013-02-27-001019		
16	drogers	assign	ID 2013-02-27-001019		
17	dsortme	assign	ID 2013-02-27-001019		
18	dt.instructor	assign	ID 2013-02-27-001019		
19	dtillery	assign	ID 2013-02-27-001019		
20	dvader	assign	ID 2013-02-27-001019		
21	dyoung	assign	ID 2013-02-27-001019		
22	ebanker	assign	ID 2013-02-27-001019		
23	Grodsky_instructor	assign	ID 2013-02-27-001019		
24	jsmith	assign	ID 2013-02-27-001019		
25	kbergin	assign	ID 2013-02-27-001019		

Notice how the formatting is the same as that required for a Personal Capture licensing import. Also notice how the action column shows **assign** as the only action. This indicates that the License ID listed is assigned to that user.

Depending on the tasks you need to perform, using the Personal Capture user export might be the most efficient way to generate a proper CSV file for import. For example, you may have users currently assigned a Personal Capture license that must be replaced by a new or updated license. In this case you should revoke the old licenses then assign the new ones to the same users, possibly adding new users to the assignment list if necessary.

To generate a CSV file that revokes old licenses and assigns new ones to existing staff:

1. Generate the Personal Capture export file by navigating to **System > Licensing > Presenter Assignments**, then click **Export**.
2. Open the automatically downloaded file titled **licenses.csv**.
3. If desired, sort the file by Username or License ID, depending on how you want to view the list.
 - If you only want to revoke particular Licenses IDs to reassign new, sort by License ID and apply the below instructions to only those rows.
 - If you want to revoke license for only certain Users, sort by Username and apply the below instructions to only those users.
4. Replace "assign" in the Action column with **revoke** or **revokeall**.
 - **Revoke** will revoke only the listed License ID from that user.
 - **Revokeall** removes ALL licenses from that user and does not require a License ID, though if one appears the system ignores it.
5. For all users to whom you will be re-assigning new licenses, copy the Username column entries, then paste the list starting with the first row below the last current entry. This means you will have two sets of the same users in the file, one set below the other. Alternately you can paste this list to a new file to generate two imports: one that revokes licenses and one that assigns them.
6. Pass through the second (pasted) users list and:
 - Remove any users who should no longer be assigned a license.
 - Add any new users who must have a Personal Capture license assigned.
7. In the Action column for the pasted list of users, enter **assign** or **autoassign** as appropriate. You can enter the action into the first row, then copy and paste it to subsequent rows.
8. If you entered "assign" in the Action column, enter the new **License ID** to be assigned to the users. You can enter the ID in the first row, then copy and paste it to subsequent rows. Autoassign does not require entry of a License ID.
9. Save the file as a ***.csv** file.

After you have generated the CSV file, use the instructions below to import the file to the ESS.

As indicated in the procedure, you can perform this task using two different CSV files, one that revokes licenses from the username list, and one that assigns new licenses to the username list. This method may be easier if you have a particularly large list of users. Generating two files keeps the list from becoming cumbersome and hard to navigate.

Export the User List

If you need to license a large number of Academic Staff members who do not currently have Personal Capture licenses assigned to them, the easiest way to create the file may be to generate an export of your users list, then copy the User-Name or Email column from that export into a Personal Capture license export file.

The figure below shows a sample User export, the **person.csv** file, open in Excel and sorted by Organization-Role-Name-1 column.

A	B	C	D	E	F	G	H
Last-Name	First-Name	Display-Name	Email	User-Name	Password	Organization-Role-Name1	Organization-Role-Name2
coInstructor	denice	denice co instructor	dthorninstructor3@college.edu	aptus.Instructor		echo360;role-name-academic-staff	echo360 / denice;role-name-academic-staff
thornASnGProot	denice	denice thornASnGProot	dASnGProot@college.edu	dASnGProot		echo360;role-name-academic-staff	echo360 / denice;role-name-academic-staff
thornASnSProot	denice	denice thornASnSProot	dASnSProot@college.edu	dASnSProot		echo360;role-name-academic-staff	echo360 / denice;role-name-academic-staff
thornASnTArroot	denice	denice thornASnTArroot	dASnTArroot@college.edu	dASnTArroot		echo360;role-name-academic-staff	echo360 / denice;role-name-academic-staff
Rajaraman	Nithya guest	F Nithya guest Presenter	1.n.guest@college.edu	Nithya guest Presenter		echo360;role-name-academic-staff	echo360;role-name-academic-staff
Rajaraman	Nithya instruct	Nithya instructor	1.n.instructor@college.edu	Nithya instructor		echo360;role-name-academic-staff	echo360;role-name-academic-staff
Rajaraman	Nithya student	Nithya student Presenter	1.n.student@college.edu	Nithya student Presenter		echo360;role-name-academic-staff	echo360;role-name-academic-staff
Rajaraman	Nithya TA	Nithya TA	1.n.assistant@college.edu	Nithya TA		echo360;role-name-academic-staff	echo360;role-name-academic-staff
Young	Dirk	Dirk Young	dyoung@college.edu	dyoung		echo360;role-name-academic-staff	echo360;role-name-admin
Rajaraman	Nithya root an	Test@college.edu	nithya44@college.edu	admin root and sub		echo360;role-name-academic-staff	echo360;role-name-admin
Marrelli	Carl	Carl Marrelli	cmarrelli@college.edu	cmarrelli		echo360;role-name-academic-staff	echo360;role-name-admin
Academic Staff	Nithya Root sc	Nithya Root scheduler + Instr	test@college.edu	Nithya scheduler Instructor		echo360;role-name-academic-staff	echo360;role-name-scheduler
rschriins	rschriins	rschriins	rschriins@college.edu	rschriins		echo360;role-name-academic-staff	echo360;role-name-scheduler
Brachwaite	Shireen	shireen	sbrachwaite@college.edu	shireen		echo360;role-name-academic-staff	echo360;role-name-scheduler
Vader	Darth	Darth Vader	dvader@college.edu	dvader		echo360;role-name-academic-staff	echo360;role-name-scheduler
Mitchell	Debbie	Debbie Mitchell	dmitchell@college.edu	dmitchell		echo360;role-name-academic-staff	
thornASnIroot	denice	denice thornASnIroot	dASnIroot@college.edu	dASnIroot		echo360;role-name-academic-staff	
thornASroot	denice	denice thornASroot	dASroot@college.edu	dASroot		echo360;role-name-academic-staff	
thornSortme	denice	denice thornSortme	dSortme@college.edu	dSortme		echo360;role-name-academic-staff	
Rogers	Doug	Doug Rogers	drogers@college.edu	drogers		echo360;role-name-academic-staff	
Rajaraman	Nithya test ins	Instructor	nithya@college.edu	nithya ins		echo360;role-name-academic-staff	
Smith	John	John Smith	jsmith@college.edu	jsmith		echo360;role-name-academic-staff	

Depending on whether you have multiple organizations configured for your system, you may be able to use this method to easily identify and select academic staff from the list, and copy and paste their Email or User-Name fields into the Personal Capture licensing CSV import file.

After you have generated the CSV file, use the instructions above to [import the file to the ESS](#).

i PCAP Licenses are Only Assigned to Academic Staff

If you have multiple organizations and sub-organizations, you may find it difficult to sort the Users export to find only academic staff and copy/paste their User-Name or Email for licensing. However Personal Capture licenses can ONLY be assigned to users with the Academic Staff role assigned to them. So if you accidentally include an Admin or other type of user in the import file, do not worry. If the import process finds other types of users on the list, it will note an error on the processing log and skip that user.

License Individual Presenters via User Profile

In this section:

- [Overview](#)
- [Assign Personal Capture License via User Profile](#)
- [Revoke Personal Capture License via User Profile](#)

Overview

In order to use [Personal Software Capture](#) to record and publish presentations for students, Academic Staff members must have a [Personal Capture license assigned to them](#).

The Users page of the EchoSystem Server (ESS) provides two methods for licensing presenters for Personal

Capture:

- Edit an individual presenter's user profile and assign or revoke the Personal Capture license.
- Select multiple presenters from the Active Staff tab and choose to [assign or revoke Personal Capture licenses for all selections](#).

The instructions on this page cover using the individual presenter's user profile to assign or revoke Personal Capture licenses.

Assign Personal Capture License via User Profile

Use the procedure below to assign a Personal Capture license to a presenter through the [Edit User page](#) of the ESS.

1. Navigate to **Configuration > Users**.
2. In the Active Staff tab, find the presenter you want to license and click **edit**.
3. In the Personal Capture Licenses section of the Edit User page, shown in the below figure, check the Personal Capture (PCAP Product) license you want to assign.

Edit User - Instructor

User Details

First Name :

Last Name :

Display Name :

Email Address :

Block Alerts? :

Local Time Zone :

EchoSystem Identifier : fc415bd1-8718-49c9-a929-84d292183d66

Alternate Identifier :

Organization Roles

Organization: echo360 Role: Academic Staff Remove

 Add >>

Personal Capture Licenses

Name	Products	Available	Expiration Time
<input type="checkbox"/> Product License - PCAP S1, ID 2013-02-27-001019, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, A/VD, A/VV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	1,000	6/24/15 8:00 PM (in 2 years, 0 months)
<input checked="" type="checkbox"/> Product License - PCAP S2, ID 2013-02-27-001410, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, A/VD, A/VV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	2	12/31/14 7:00 PM (in 1 year, 6 months)
<input type="checkbox"/> Product License - PCAP S3, ID 2013-02-27-001412, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, A/VD, A/VV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	1,000	6/24/15 8:00 PM (in 2 years, 0 months)
<input type="checkbox"/> Product License - PCAP S4, ID 2013-02-27-001413, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, A/VD, A/VV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	1,000	6/24/15 8:00 PM (in 2 years, 0 months)
<input type="checkbox"/> Product License - PCAP S6, ID 2013-02-27-001415, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, A/VD, A/VV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	1,000	6/24/15 8:00 PM (in 2 years, 0 months)

4. When finished, click **Save**.

If you do not see a Personal Capture Licenses section on the [Edit User page](#), be sure the user is assigned the Academic Staff role. Only Academic Staff can be assigned Personal Capture licenses. See [Manage Users](#) for additional information on user roles.

Revoke Personal Capture License via User Profile

Use the procedure below to revoke any assigned Personal Capture licenses from a user through the [Edit User page](#) of the ESS.

1. Navigate to **Configuration > Users**.
2. In the Active Staff tab, find the presenter whose license you want to revoke and click **edit**.
3. In the Personal Capture Licenses section of the Edit User page, shown in the below figure, uncheck the assigned Personal Capture (PCAP Product) license you want to revoke.

Edit User - Instructor

User Details

First Name :

Last Name :

Display Name :

Email Address :

Block Alerts? :

Local Time Zone :

EchoSystem Identifier : fc415bd1-8718-49c9-a929-84d292183d66

Alternate Identifier :

Organization Roles

Organization	Role	
echo360	Academic Staff	Remove
<input type="text" value="Choose..."/>	<input type="text" value="Choose..."/>	Add >>

Personal Capture Licenses

Name	Products	Available	Expiration Time
<input type="checkbox"/> Product License - PCAP S1, ID 2013-02-27-001019, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AV, AVV, AVVD, AVVV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	1,000	6/24/15 8:00 PM (in 2 years, 0 months)
<input type="checkbox"/> Product License - PCAP S2, ID 2013-02-27-001410, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AV, AVV, AVVD, AVVV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	2	12/31/14 7:00 PM (in 1 year, 6 months)
<input type="checkbox"/> Product License - PCAP S3, ID 2013-02-27-001412, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AV, AVV, AVVD, AVVV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	1,000	6/24/15 8:00 PM (in 2 years, 0 months)
<input type="checkbox"/> Product License - PCAP S4, ID 2013-02-27-001413, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AV, AVV, AVVD, AVVV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	1,000	6/24/15 8:00 PM (in 2 years, 0 months)
<input type="checkbox"/> Product License - PCAP S5, ID 2013-02-27-001415, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AV, AVV, AVVD, AVVV)	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Dual Video	1,000	6/24/15 8:00 PM (in 2 years, 0 months)

4. When finished, click **Save**.

Bulk License Presenters via Users Page

In this section:

- [Overview](#)
- [Assign Personal Capture Licenses to Multiple Users](#)
- [Revoke Personal Capture Licenses from Multiple Users](#)

Overview

In order to use [Personal Software Capture](#) to record and publish presentations for students, Academic Staff members must have a [Personal Capture license assigned to them](#).

The Users page of the EchoSystem Server (ESS) provides two methods for licensing presenters for Personal Capture:

- [Edit the presenter's user profile](#) and assign or revoke the Personal Capture license.
- Select multiple presenters on the Active Staff tab in the ESS and choose to assign or revoke Personal Capture licenses for all selections.

The instructions on this page cover [assigning](#) or [revoking](#) Personal Capture licenses for multiple presenters at once through the Users page.

Assign Personal Capture Licenses to Multiple Users

The procedure below identifies the steps used in assigning Personal Capture licenses to multiple presenters at once through the Active Staff tab of the Users page on the ESS.

1. Navigate to **Configuration > Users**.

- In the Active Staff tab, click the checkbox for the Academic Staff users you want to license.
- Select **Assign PCAP Presenter License** from the Actions drop-down list at the bottom of the page, as shown in the below figure.

Name	Email Address	System Role(s)	Assigned Licenses	Last Log In
<input checked="" type="checkbox"/> denice co instructor	dthorninstructor3@gmail.com	echo360 / denice-->Academic Staff; echo360-->Academic Staff		6/4/13 10:16 AM
<input checked="" type="checkbox"/> Instructor	nithya@rr.org	echo360-->Academic Staff		
<input type="checkbox"/> Nithya as instructor for sec del	nithya@test.org	echo360-->Academic Staff		
<input type="checkbox"/> Nithya DB sec	nit@test.org	echo360-->Academic Staff		
<input checked="" type="checkbox"/> Nithya instructor	1nr.instructor@echo.com	echo360-->Academic Staff; echo360-->Academic Staff		
<input type="checkbox"/> Nithya instructor Adhoc	NithyaAdhoc@test.org	echo360-->Academic Staff		
<input checked="" type="checkbox"/> Nithya org instructor	1nrorg.instructor@echo.com	echo360 / Nithya-->Academic Staff; echo360-->Academic Staff; echo360-->License Manager		
<input type="checkbox"/> Nithya Org scheduler + Instructor	nithya@test1.org	echo360 / Nithya-->Academic Staff; echo360 / Nithya-->Scheduler		
<input type="checkbox"/> Nithya Root scheduler + Instructor	test1@test.org	echo360-->Academic Staff; echo360-->Scheduler		
<input type="checkbox"/> R instructor	rinstructor@aptus.in	echo360-->Academic Staff		

Select: All 10 (of 10) Displayed Above, All 10 in Filter, None

Action: Choose...
 Retire selected
 Assign PCAP Presenter License
 Revoke All PCAP Presenter Licenses

View: 20 Users per Page

- An Assign License dialog box appears, as shown below. From the **License** drop-down list, select a license then click **Continue**.

Assign License

License: Choose...

When the Users page refreshes, the selected presenters now show the Personal Capture license in the Assigned Licenses column. The figure in the section below shows an Active Staff list with assigned licenses.

Revoke Personal Capture Licenses from Multiple Users

Follow these steps to revoke Personal Capture licenses from multiple presenters at once through the Active Staff tab of the Users page on the ESS.

- Navigate to **Configuration > Users**.
- In the Active Staff tab, click the checkbox for the Academic Staff whose licenses you want to revoke.
- Select **Revoke All PCAP Presenter Licenses** from the Actions drop-down list at the bottom of the page, as shown in the below figure.

Active Staff: 10		Active Student: 1	Retired: 0	1 - 10 of 10	
Name	Email Address	System Role(s)	Assigned Licenses	Last Log In	
<input checked="" type="checkbox"/> denice co instructor	dthorninstructor3@gmail.com	echo360 / denice-->Academic Staff; echo360-->Academic Staff	Product License - PCAP S1, ID 2013-02-27-001019, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, AVID, AVIV)	6/4/13 10:16 AM	
<input checked="" type="checkbox"/> Instructor	nithya@rr.org	echo360-->Academic Staff	Product License - PCAP S1, ID 2013-02-27-001019, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, AVID, AVIV)		
<input type="checkbox"/> Nithya as instructor for sec del	nithya@test.org	echo360-->Academic Staff			
<input type="checkbox"/> Nithya DB sec	nt@test.org	echo360-->Academic Staff			
<input checked="" type="checkbox"/> Nithya instructor	1nr.instructor@echo.com	echo360-->Academic Staff; echo360-->Academic Staff	Product License - PCAP S1, ID 2013-02-27-001019, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, AVID, AVIV)		
<input type="checkbox"/> Nithya instructor Adhoc	NithyaAdhoc@test.org	echo360-->Academic Staff			
<input checked="" type="checkbox"/> Nithya org instructor	1nrorg.instructor@echo.com	echo360 / Nithya-->Academic Staff; echo360-->Academic Staff; echo360-->License Manager	Product License - PCAP S1, ID 2013-02-27-001019, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media (AD, AV, AVID, AVIV)		
<input type="checkbox"/> Nithya Org scheduler + instructor	nithya@test1.org	echo360 / Nithya-->Academic Staff; echo360 / Nithya-->Scheduler			
<input type="checkbox"/> Nithya Root scheduler + instructor	test@test.org	echo360-->Academic Staff; echo360-->Scheduler			
<input type="checkbox"/> R instructor	rinstructor@aptus.in	echo360-->Academic Staff			

Select: All 10 (of 10) Displayed Above, All 10 in Filter, None

Action Choose...

- Retire selected
- Assign PCAP Presenter License
- Revoke All PCAP Presenter Licenses

View: 20 Users per Page 1 - 10 of 10

When the Users page refreshes, the Assigned Licenses column should be blank for the selected presenters, indicating those Personal Capture licenses were revoked. The figure in the section above shows an Active Staff list without assigned licenses.

License Rooms

In this section:

- [Overview](#)
- [Understanding License Names](#)
- [Assigning and Removing Room Licenses](#)

Overview

Room licenses allow for capturing lectures or other activities in a room such as a classroom, auditorium or lecture hall, and apply to the following capture methods:

- [EchoSystem Capture Appliance](#)
- [EchoSystem SafeCapture HD](#)
- [Classroom Capture Software](#) installed on the podium PC

Room licenses differ from site licenses in that a site license covers all instances of the licensed capture method in all locations. No further licensing configuration steps are required beyond [downloading and updating your license information on the ESS](#). Room licenses are sold in bundles of individual licenses that are then assigned to each room where the capture method is used.

You can, if necessary, assign multiple different room licenses to a single room. For example, there may be a capture appliance installed in a room along with Classroom Capture installed on the podium PC. In order to use both recording methods, or to have both available in case one method fails, the room must have both a capture appliance license and a Classroom Capture license assigned to the room. In this case, you would perform the licensing procedure shown below twice, selecting each different license type and checking the room to which the situation applies. Once assigned, both licenses will appear in the Licensed column for the room.

The Assign Room Licenses page also allows you to "un-assign" or remove a license from a room as needed. This is done by unchecking the room for the particular license selected.

i Who Can Do This?

- System Administrator
- User with both Admin & License Manager roles

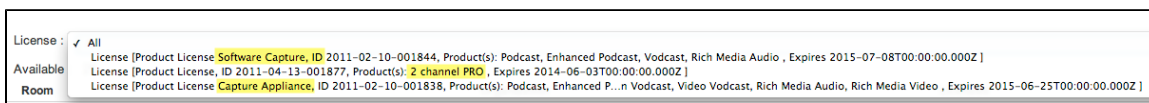
If a user has only the License Manager role assigned, they can *view* room license assignments but cannot assign or revoke licenses.

Users must possess both Admin & License Manager roles to assign and revoke room licenses. Furthermore, the user can only assign licenses to rooms belonging to the same organization for which their roles apply. If the Admin & License Manager roles are assigned at the root organization, the user can assign/revoke licenses for both the root and sub-organizations. For information on assigning organizations and roles for a user, as well as the privileges associated with each role, see [Manage Users](#).

Understanding License Names

When you assign room licenses, you are presented with a drop-down list that contains only the license names. You will need understand the information presented in the license name in order to know which license to select for assignment to each room.

The below figure shows a sample drop-down list from the Room Assignments licensing page, with highlights of the License Name text that identifies the license type.



The following table lists the terms in the license name that identifies each of the three types of licenses you available for room assignment.

If This Term Appears in the License Name...	It is a license for this device
Software Capture	Classroom Capture
2 channel PRO	SafeCapture HD
Capture Appliance	EchoSystem Capture Appliance

In addition to identifying the device type to which the license applies, the license information may also contain an ID number, a truncated list of supported products and outputs, and the expiration date for the license. While this additional information is important, it is more clearly displayed on the main [Licenses](#) page of the ESS.

The License drop-down list also contains an "All" selection, which is the selection shown by default when you open the Room Assignments page. This selection simply allows you to see the total number of purchased, available, and assigned licenses combined across all room license types. It is not used for assigning licenses to rooms.

Assigning and Removing Room Licenses

⚠ You can also assign room licenses when you assign a device

You can also assign a room license when you assign and configure a device for a Room. See [Assign the Capture Appliance to the Room](#) or [Assign Classroom Capture to the Room](#) as appropriate

The Assign Room Licenses page contains the following items:

- A License drop-down list that allows you to select a license to assign to a room.
- A real-time calculation of total, assigned, and available licenses. These numbers change depending on which license is selected from the list, and whether you have assigned more licenses to rooms.
- A list of rooms configured for the system, the organization to which each belongs, and the licenses, if any, currently assigned to the room.

The figure below shows a sample Assign Room Licenses page, with the "All" option selected. "All" simply allows you to see the combined total of available licenses, the number assigned and the number still available. The "All" option is not used for assigning licenses.

Licensing > Assign Room Licenses

Assign Room Licenses

License : All Total : 31 Assigned : 7 Available : 24

Room	Organization	Licensed
aptus campus: aptus building, Room with Appliance	echo360 / Aptus	Product License Software Capture, ID 2012-04-18-002844; 2 channel PRO 2012-04-18-001926
BIET: BIET, Classroom cap	echo360	Product License Software Capture, ID 2012-04-18-002844
BIET: schd device, Do Not Move	echo360	2 channel PRO 2012-04-18-001926
echo.campus: aptus.Builing, aptus.Appliance	echo360 / Aptus	
echo.campus: echo.building, echo.appliance	echo360	Product License Capture Appliance, ID 2012-04-18-001838
UofDe: build1, roomOrg	echo360 / denice	Product License Capture Appliance, ID 2012-04-18-001838
UofDe: build1, roomRoot	echo360	Product License Capture Appliance, ID 2012-04-18-001838

Save Cancel

If you select a specific license from the drop-down list, the available license information changes to be specific to the selected license. In addition, the Room list also changes to show a check box for each room. If the box is checked, the selected license is assigned to that room. If the box is not checked, the room does not have the selected license assigned to it.

When assigning licenses, one or more of the following scenarios likely fits your situation:

- You have new appliances or Classroom Capture installations that you need to license.
- You have moved one or more appliances or Classroom Capture installations to different rooms, so you need to remove a license from one room and assign it to another.
- You have replaced an old capture appliance with a new SafeCapture HD appliance.
- You have removed a capture appliance or Classroom Capture installation from a room where you are no longer recording captures.

The simple design of the Assign Room Licenses page allows you to use check boxes to do all of the assignment/removal for each type of license at once, rather than having to remove, save, then re-assign licenses via separate steps. In addition, it allows you to quickly see what licenses are already assigned to each room.

i Know Which Rooms Require Which Licenses

Before you assign room licenses, be prepared with a list, if necessary, of which rooms contain what capture methods and require appropriate licensing.

To assign and remove room licenses:

1. In the ESS, navigate to **System > Licensing**.
2. Click **Room Assignments**. The Assign Room Licenses page appears.
3. Select a license from the drop-down list, shown in the figure below. If necessary, use the information in the table above to identify which license applies to which capture method.

License :	<input checked="" type="checkbox"/> All	Total :	31	Assigned :	7	Available :	24
	License [2 channel PRO 2012-04-18-001926 , Expires 2015-03-04T00:00:00.000Z]						
	License [Product License Software Capture, ID 2012-04-18-002844 , Expires 2015-07-08T00:00:00.000Z]						
Room	License [Product License Capture Appliance, ID 2012-04-18-001838 , Expires 2015-03-06T00:00:00.000Z]						Licensed

4. After selecting a license, notice that:
 - The Total, Assigned, and Available quantities change to show the applicable quantities for the selected license.
 - A check box appears for each of the rooms. If the box is checked, this license is already assigned to the room.

The below figure shows a Classroom Capture license selected, and two rooms checked, meaning the license is assigned to those rooms.

Room	Organization	Licensed
<input checked="" type="checkbox"/> aptus campus: aptus building, Room with Appliance	echo360 / Aptus	Product License Software Capture, ID 2012-04-18-002844; 2 channel PRO 2012-04-18-001926
<input checked="" type="checkbox"/> BIET: BIET, Classroom cap	echo360	Product License Software Capture, ID 2012-04-18-002844
<input type="checkbox"/> BIET: schd device, Do Not Move	echo360	2 channel PRO 2012-04-18-001926
<input type="checkbox"/> echo.campus: aptus.Builing, aptus.Appliance	echo360 / Aptus	
<input type="checkbox"/> echo.campus: echo.building, echo.appliance	echo360	
<input type="checkbox"/> UofDe: build1, roomOrg	echo360 / denice	Product License Capture Appliance, ID 2012-04-18-001838
<input type="checkbox"/> UofDe: build1, roomRoot	echo360	Product License Capture Appliance, ID 2012-04-18-001838

5. Click a **checkmark** in the check box to **assign** the license to the corresponding room.
6. **Remove the checkmark** from the check box to **un-assign** or **remove** the license from the room.
7. **Review your selections**, including which license appears in the License field, and which rooms have checkmarks to indicate licensing for that room.
8. If the selections are correct click **Save**. A message appears at the top of the page to indicate success.
9. **Repeat these steps for each license type** you need to assign or un-assign for each room.
10. When you are finished, click **Cancel** or click the **Licensing** link in the breadcrumbs to return to the Licensing page.

Manage Schedules

In this section:

- [Overview](#)
- [Who Does Scheduling?](#)
- [Schedule Terminology](#)

Overview

Scheduling automates lecture capture. When you (a Scheduler or System Administrator) schedule a course, you tell the EchoSystem to capture every lecture given in a particular classroom (such as "Room 729") at a particular time (such as "8-9:15 am, Monday, Wednesday, Friday"), for a particular term (such as "Autumn 2010").

When a course is scheduled in the EchoSystem Server (ESS), the Academic Staff member serving as the Presenter (Instructor, Teaching Assistant, Student Presenter, or Guest Presenter) need only arrive at the classroom and begin teaching. The lecture is automatically captured, processed, and posted for student review without any further administration.

Besides the information on this page, see also:

- [Create a New Schedule](#)
- [Activate a Draft Schedule](#)
- [Manage Existing Schedules](#)

In addition, if you are already familiar with scheduling and the information required, see [Import Schedules](#) for instructions on using a CSV import to create or edit schedules.

Who Does Scheduling?

The EchoSystem includes two different user roles, either of which can schedule captures:

- The Admin role has unrestricted rights. An Admin can perform any function in the EchoSystem, including scheduling.
- The Scheduler role has more authority than one of the Academic Staff roles, but less authority than the Admin role. This role may be assigned to junior staff. In general, the Scheduler can:
 - Create and modify schedules
 - Edit presentation metadata (such as the Description)

More specifically, the Scheduler can:

- Log in to the ESS UI.
- Configure Scheduler Alerts settings.
- View all presentations in the Echoes tab.
- Edit presentation metadata (such as the Description).
- Change presentation states. However, the Scheduler cannot permanently delete an Echo.
- View and modify any schedules.
- View the Monitor tab and see the following sub-tabs:
 - Summary
 - Captures
 - Processing Tasks
 - Alerts
 - Support

The Scheduler cannot:

- Log in to the capture device user interface or Personal Capture. The Scheduler is not assigned to sections as Academic Staff are.
- View or modify the Configuration tab.
- View or modify Notifier settings or non-Scheduler Alert settings.
- Change course content.

Roles are additive. This means that a Scheduler who is also a Academic Staff member may perform both roles.

Schedule Terminology

The terms listed in the table below are commonly used when discussing scheduling.

Term	Description
Recurring Event Schedule	A recurring event schedule enables captures on several different dates and times over the course of a term. Say, for example, that during the autumn term, section 001 of ECON101 meets on Mondays, Wednesdays and Fridays in room 600 at 10 am. You could create a recurring schedule that would capture all class meetings without further administration from you.
Single Event Schedule	A single event schedule enables a single capture at a specified date and time. For example, if a guest lecturer is presenting in a large lecture hall, you can schedule a single event to capture the lecture.
Draft Schedule	Draft schedules are saved but not activated. You can begin work on creating a schedule, save it as a draft, and return later to complete it. All schedules (including copied schedules) are draft until activated.
Active Schedule	An active schedule is applied to the room for capture. All required information must be set before a schedule can be activated.
Completed Schedule	A completed schedule is one where the last scheduled capture time is in the past. If you create a schedule to capture all classes from August 1 to December 15, that schedule becomes a completed schedule on December 16. This is so even if the last capture did not occur.

Create a New Schedule

In this section:

- [Overview](#)
- [Before You Begin](#)
- [Create a New Schedule](#)

Overview

You can create two different types of schedules:

- **Section schedule.** You might create a schedule for section 001 of ECON101, which meets on Mondays, Wednesdays and Fridays in room 600 at 10 am during the autumn term.
- **Special event schedule.** This schedule enables a single capture at a specified date and time with an assigned capture device (a capture appliance or Classroom Capture Software). You might create such a schedule for a guest lecturer, keynote speaker, or commencement address.

This section explains how to create both types of schedules. If you have a large number of schedules to create, you can create them using a CSV import. See [Import Schedules](#) for detailed instructions.

Remember to Activate the Schedule

When you first create a schedule, it is in draft status. It does not become active until you press the **Activate** button.

Before You Begin

Before you create a schedule, make sure you have defined the entities you will specify when you create the schedule. These are:

- Terms (**Schedule > Terms**)
- Sections (**Schedule > Courses > Course Details**)
- Date and Time
- Rooms (**Configuration > Rooms**)
- Presenter (inherited from section)
- Product Groups (inherited from [product groups](#))

When you create the schedule, you can set or modify these entities:

- Schedule- or course-specific exclusions dates
- Display input resolution (inherited from room)
- Echo defaults (inherited from the parent or child organization)

Create a New Schedule

1. In the EchoSystem Server (ESS) interface, navigate to **Schedule > Schedules**.
2. Select the term from the list.
3. Select the course from the list.
4. Select the section from the list.
5. Click **Add New**. This opens the Add New Schedule page, as shown in the figure below.



6. Review and complete the [Course/Description](#), [Room](#), [Date and Time](#), [Exclusions](#), [Presenters](#), [Product Groups](#), and [Echo Defaults](#) options.
7. Click **Save**.
8. Saving the schedule opens the Schedule Details page, as shown in the figure below.

Remember to Activate the Schedule

Although you have saved the schedule, it is still in draft status. It does not become active until you press the **Activate** button.

9. Verify that you have entered all the information required. You should see a series of green check marks at the top of the page.
10. Press **Activate** to move the schedule from draft to active status.

Course / Description

The following figure shows the Course/Description scheduling options. Below the figure is a table that describes the settings available.

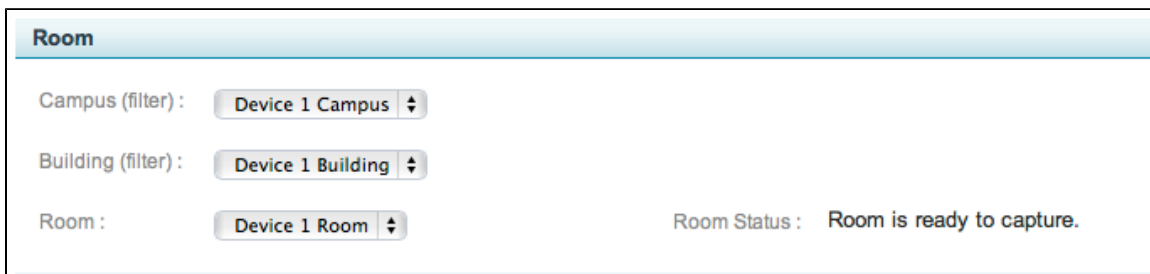
Course / Description	
Course :	Choreographic Blocking (Chor-Block 101-Choreographic Blocking 1) 2013
Title :	<input type="text" value="Choreographic Blocking (Chor-Block 101-Choreographic Blocking 1) 2013"/>
Description :	<input type="text"/>
EchoSystem Identifier :	5d28f135-8bc6-4a88-b551-484232eece9b
Alternate Identifier :	<input type="text"/>

Option	Description	Inherited From
Course	The full course name according to the ESS. The ESS constructs a course name from the defined course name, the course identifier, the section, and the term.	Course
Title	The course title, set to the ESS course name by default. It is displayed in the EchoPlayer during student review.	Course
Description	An optional description for the course that can be displayed in the EchoPlayer during student review.	Course
EchoSystem Identifier	The globally unique identifier (GUID) used by the EchoSystem Server (ESS) to identify the object. The ESS automatically assigns this ID to each object in the system. You may use this identifier when making API or other system calls. See API Documentation for further explanation.	N/A

<p>Alternate Identifier</p>	<p>The globally unique identifier (GUID) used by an external system, such as an LMS or LDAP, to identify the object. Entering an Alternate ID is optional, but allows you to use the external system's GUID (not the EchoSystem Identifier) when making API or other system calls.</p> <p>The Alternate Identifier must be unique for each ESS object type. See API Documentation for further explanation.</p>	<p>N/A</p>
------------------------------------	--	------------

Room

The following figure shows the Room settings. Below the figure is a table that describes the settings available.



Option	Description
<p>Campus (filter)</p>	<p>Select the appropriate campus. Only buildings on that campus are listed in the Building list.</p>
<p>Building (filter)</p>	<p>Select the appropriate building. Only rooms in that building are listed in the Room list.</p>
<p>Room</p>	<p>Select the appropriate room. Room Status area indicates whether or not the selected room is ready to capture.</p>

Date and Time - Recurring Event

The following figure shows the Date and Time scheduling options for a Recurring Event. Below the figure is a table that describes the settings available.

Date and Time

Schedule Type : Single Event Recurring

Start Date : End Date :

Days : Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Start Time : Duration (minutes) : (End Time : 9:10 AM)

Option	Description	Inherited From
Start Date	The start date for the recurring capture. Typically, the first day of the term.	N/A
End Date	The end date for the recurring capture. Typically, the last day of the term.	N/A
Days	Days of week to capture. Select all relevant days.	N/A
Start Time	The start time of the capture. Typically, the class start time.	N/A
Duration	The duration of the capture. Typically, the class duration.	Parent Organization > Child Organization > Schedule

Date and Time - Single Event

The following figure shows the Date and Time scheduling options for a Single Event. Below the figure is a table that describes the settings available.

Date and Time

Schedule Type : Single Event Recurring

Start Date :

Start Time : Duration (minutes) : (End Time : 10:50 AM)

Option	Description	Inherited From
Start Date	The date of the capture.	N/A
Start Time	The start time of the capture. Typically, the class start time.	N/A
Duration	The duration of the capture. Typically, the class duration.	Parent Organization > Child Organization > Schedule

Exclusions

The following figure shows the scheduling Exclusions options. Below the figure is a table that describes the settings available.

Exclusions, e.g. mid-term break / holidays

Excluded Dates : from to [Add >>](#) 7/4/13 - 7/7/13 [remove](#)

Option	Description	Inherited From
Excluded Dates (from and to)	Specific dates or a date range that should not be captured. These might be the exam dates for the course. These dates, with the term exclusion dates, determine which class sessions are not captured.	N/A

Presenters

The following figure shows the Presenters section of the scheduling page. Below the figure is a table describing the information.

Presenters

Presenter : [Add >>](#) Presenter, Default (defaultpresenter@echo360.com) [remove](#)
Allen, Deborah (dallen@Westman.edu) [remove](#)

Search using partial first name, last name and/or email address

Option	Description	Inherited From
Selected Presenter(s)	<p>Presenters for the capture. Typically, the Academic Staff member presenting the course, and, possibly, teaching assistants.</p> <p>Presenters already appearing here are the users assigned to the section and are inherited from the section. You can add additional presenters or remove any presenters from this schedule as appropriate.</p>	Section

Echo Defaults

The following figure shows the information displayed in the Echo Defaults section of the Schedule Details page. Below the figure is a table describing the information.

Echo Defaults

This setting controls the default presentation state. Presentations can either be made Available or Unavailable by default. Change these settings on a section's or schedule's page to override the global defaults.

Echoes Initially Unavailable? :

Option	Definition	Inherited From
Echoes Initially Unavailable?	<p>If checked, Echoes are not available as soon as processed. You might check this box:</p> <ul style="list-style-type: none"> • If Echoes must be approved or edited before student review • To ensure that Echoes are released at specific times, such as a week before exams <div style="border: 2px solid yellow; padding: 10px; margin: 10px 0;"> <p>⚠ Live Streaming Unavailable if Checked</p> <p>If you are configuring this schedule as a Live Webcast of the section, this box must be unchecked.</p> </div>	Section

Product Groups

The following figure shows the scheduling Product Groups options. Below the figure is a table that describes the settings available.

Product Groups

These settings control the default product groups created for each capture. Change these settings on a section's or schedule's page to override the global defaults.

Product Group : Display Only (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality Stream Live :

The table below describes the options configured in the Product Groups section of the Schedule Details page.

Option	Definition	Inherited From
--------	------------	----------------

Product Group	The products and output qualities that are captured. The selections available are determined by the capabilities of the capture equipment resident in the room selected for this schedule. The specific choices you make for each product (Podcast, Vodcast, and EchoPlayer) must coordinate with each other. See Manage Product Groups for details.	Section
Stream Live	<p>This check box may be enabled or disabled, depending on how the product group was configured. See Add a Custom Product Group.</p> <ul style="list-style-type: none"> • To enable live webcasting for the section, check this box if it is not already checked. • To disable live webcasting for the section, uncheck this box if you can. If you cannot uncheck the box, assign a different product group to the schedule. 	N/A

Source Configuration

The Source Configuration section of the Schedule Details page, shown in the below figure, allows you to change the Display input resolution if the one configured for the selected room is inappropriate. The default is to use the resolution configured for the selected room.

Source Configuration

Display Input Resolution : Use room default (1024x768) ▾

Activate a Draft Schedule

In this section:

- [Overview](#)
- [Activate a Schedule](#)

Overview

Saving a draft lets you keep a schedule without activating it. Say, for example, that you know the dates and times for the course but not the room. You can enter the parameters you know, save the schedule as a draft, then enter just the room later.

The draft schedule (on both the listing page and detail page) shows the status of each required field. In the screenshot shown in the figure below, you see that the room parameter has not been completed.

All: 3		Active: 1		Draft: 1		Completed: 1	
Title	Course Info	Presenter	Date & Time	Room	Products	Publishing	
<input type="checkbox"/> Introduction to Economics (ECON101-002) Fall 2009 ECON101-002							

Activate a Schedule

You can activate a draft schedule any time if all required schedule data has been entered. If all data has been entered, you see a series of green check marks next to the schedule title.

1. Navigate to **Schedule > Schedules**.
2. At the bottom of the page, click the **Draft** tab.
3. Click the schedule you want to activate. The Schedule Details page appears.
4. Review the settings. Make sure you have entered all required data.
5. Click **Activate**.

Best Practice: Confirm the Assigned Product Group

If the product group assigned to a schedule specifies that a particular capture device be used, and the device is not installed in the specified room, you will see a warning message. Before activating the schedule, we recommend that you confirm that the device in the room can support the assigned product group. See [Manage Product Groups](#).

Manage Existing Schedules

In this section:

- [Overview](#)
- [Sort Schedules](#)
- [Filter and Search Schedules](#)
- [Copy a Schedule](#)
- [Delete Schedules](#)
- [Manage Schedules with Default Presenter as Instructor](#)

Overview

After you have created a few schedules you may want to:

- Sort schedules by title, presenter, room or status
- Filter and search schedules
- Copy a schedule
- Delete draft or completed schedules

All of these tasks are done from the **Schedules** tab. Select **Schedule > Schedules**.

Sort Schedules

The Schedules List view organizes schedules into active, draft, and completed groups by tabs. Within each tab, schedules are listed in a table with sortable columns. You can sort schedules by various parameters, such as title or presenter. The figure below shows the Active tab of the Schedules List view.

Schedules (Active)

Add New Schedule

Term : Course : Section :

Search

Filter By : From : To : Keyword Search :

All: 713 Active: 15 Draft: 4 Completed: 694 1 - 15 of 15

Title	Presenter	Room	Next Capture	Summary	Status	Capturing Device
<input type="checkbox"/> Auth reqd 1 Se101-Auth reqd	orgassistant sn	echo.Campus: echo.Building, SCHD for all [Do not move]	7/18/14 @ 12:30 AM	7/18/14 - 7/18/14 12:30 AM - 1:29 AM	Active (1 captures)	00-13-95-06-58-18 (since 7/17/13 6:06 AM)
<input type="checkbox"/> Course A: pcap test (CRS101.P-CRS101.P.001) echo.Summer 2011.1 CRS101.P-CRS101.P.001	R Instructor; Uday Rajaput; R guest	SCHD Campus: SCHD Building, SCHD Room	7/29/13 @ 6:25 AM	7/22/13 - 8/10/13 Mon/Tue 6:25 AM - 6:30 AM	Active (6 captures)	00-1c-08-00-02-9d (since 7/9/13 6:12 AM)
<input type="checkbox"/> Course A: pcap test (CRS101.P-CRS101.P.001) echo.Summer 2011.1 CRS101.P-CRS101.P.001	Default Presenter Uday Rajaput	Cap1 Campus: Cap1 Building, Cap1 Room	7/31/13 @ 5:20 AM	7/17/13 - 8/3/13 Wed/Thu 5:20 AM - 5:25 AM	Active (6 captures)	00-50-c2-8e-a9-c0 (since 7/10/13 4:11 PM)

Some schedules have additional management options. Hover your cursor on the schedule row to make the hover menu appear.

Filter and Search Schedules

Use the **Filter By** and **Keyword Search** controls to display only the schedules of interest. The filter or search is specific to the selected tab. This means that if, for example, you are viewing the Active schedules and search for the course "ECON101", only schedules in the Active tab with that keyword will be displayed. To apply a filter to all schedules with a particular keyword or parameter value, select the **All** tab.

This is particularly useful for applying a batch action, such as [deleting schedules](#), to a set of schedules. Use the filter to narrow the list, then sort the filtered list to show the schedules you want. You can then use the selection links, shown in the below figure, to select all or some subset of the listed schedules for deletion.

<input checked="" type="checkbox"/>	Aptus section-aptus term.2013.07.03.03.28.45.AM ASLPL-Aptus section	Uday Rajaput; pavan kumar	SCHD Campus: SCHD Building, SCHD Room	7/3/13 - 7/3/13 5:30 AM - 5:35 AM	Completed	00-1c-08-00-02-9d (since 7/2/13 4:30 PM -
<input checked="" type="checkbox"/>	Aptus section-aptus term.2013.07.03.06.27.12.AM ASLPL-Aptus section	Uday Rajaput; pavan kumar	SCHD Campus: SCHD Building, SCHD Room	7/3/13 - 7/3/13 6:30 AM - 6:35 AM	Completed	00-1c-08-00-02-9d (since 7/2/13 4:30 PM -
<input checked="" type="checkbox"/>	section-echo.Summer 2011.1.2013.07.03.03.01.16.AM ASLPL-section	Uday Rajaput; pavan kumar	SCHD Campus: SCHD Building, SCHD Room	7/3/13 - 7/3/13 3:15 AM - 3:20 AM	Completed	00-1c-08-00-02-9d (since 7/2/13 4:30 PM -
<input checked="" type="checkbox"/>	section-echo.Summer 2011.1.2013.07.03.03.19.36.AM ASLPL-section	Uday Rajaput; pavan kumar	SCHD Campus: SCHD Building, SCHD Room	7/3/13 - 7/3/13 4:15 AM - 4:20 AM	Completed	00-1c-08-00-02-9d (since 7/2/13 4:30 PM -

Select: All 10 (of 16) Displayed Above, All 16 in Filter, None Actions:

1 - 10 of 16 |< >▶▶ View: Schedules per Page

Copy a Schedule

Copying a schedule is a convenient time-saver when a section's schedule is the same for two terms.

You can copy active schedules only. When you copy a schedule, the section and schedule data are copied into a new term.

1. Create a new term (**Schedule > Terms**). You will copy the section and schedule into this new term.
2. Set this term to be the default Term (**Configuration > Organizations**).
3. Navigate to **Schedule > Schedules**. Find the schedule you want to copy, using a filter or keyword search as necessary.
4. Hover your mouse over the schedule you want to copy. Notice that a copy button appears below the schedule name, as shown in the figure below.

All: 713		Active: 15		Draft: 4		Completed: 694		1 - 15 of 15	
Title	Presenter	Room	Next Capture	Summary	Status	Capturing Device			
<input type="checkbox"/> Auth reqd 1 Ss101-Auth reqd	orgassistant sn	echo.Campus: echo.Building, SCHD for all [Do not move]	7/18/14 @ 12:30 AM	7/18/14 - 7/18/14 12:30 AM - 1:29 AM	Active (1 captures)	00-13-95-06-58-18 (since 7/17/13 6:06 AM)			
<input type="checkbox"/> Course A: pcap test (CRS101.P-CRS101.P.001) echo.Summer 2011.1 CRS101.P-CRS101.P.001	.copy_edit R instructor; Uday Rajaput; R guest	SCHD Campus: SCHD Building, SCHD Room	7/29/13 @ 6:25 AM	7/22/13 - 8/10/13 Mon/Tue 6:25 AM - 6:30 AM	Active (6 captures)	00-1c-08-00-02-9d (since 7/9/13 6:12 AM)			
<input type="checkbox"/> Course A: pcap test (CRS101.P-CRS101.P.001) echo.2011.1 CRS101.P-CRS101.P.001	Copy this entire schedule to the default term. Uday Rajaput	Cap1 Building, Cap1 Room	7/31/13 @ 5:20 AM	7/17/13 - 8/3/13 Wed/Thu 5:20 AM - 5:25 AM	Active (6 captures)	00-50-c2-8e-a9-c0 (since 7/10/13 4:11 PM)			

- Click **Copy**.
- The edit schedule page displays. Edit the schedule data if necessary.
- Scroll to the bottom of the page and click **Save**.
- The schedule is saved as a draft.
- Notice that the new term ("Spring" for example) appears next to the course name and title.
- Click **Activate**.

Delete Schedules

You can delete draft, completed and active schedules. You can delete an active schedule even if the end date of the schedule is later than the current day's date. Say, for example, that today is Friday, June 7, 2013 and you want to delete a schedule with an end date of July 7, 2013. You can delete that schedule. You do not need to change the end date in order to delete it.

When you delete a schedule, no other objects are deleted with it.

- Navigate to **Schedule > Schedules**.
- Select the tab containing the schedule(s) you want to delete.
- Do one of the following:
 - To delete a single schedule, click the name of the schedule to open the Schedule Details page, then click **Delete**.
 - To permanently delete one or multiple schedules, select the box to the left of each schedule and select **Delete selected** from the Actions drop-down list at the bottom of the page.
- Confirm that you want to delete the schedule (s).
- Notice the confirmation message at the top of the page.
- Refresh the page. Notice that:
 - The schedule is deleted from the list
 - The number of schedules listed for the tab is smaller

Manage Schedules with Default Presenter as Instructor

In certain cases, you will see the [Default Presenter](#) assigned to a schedule:

Course A: pcap test (CRS101.P-CRS101.P.001) echo.Summer 2011.1 CRS101.P-CRS101.P.001	Default Presenter	Device2 campus: Device 2 Building, Device2 Room	6/24/13 @ 6:30 AM	6/17/13 - 6/29/13 Mon/Tue 6:30 AM - 6:35 AM
---	-------------------	--	-------------------	--

This occurs when you have [retired](#) the only Presenter assigned to the schedule (typically an instructor assigned to the associated section). When this happens, the Default Presenter (not a real person) is automatically to the schedule, because the schedule requires a Presenter be assigned.

When an Instructor takes responsibility for teaching a section assigned to the Default Presenter, change the presenter assigned to the section and schedule. You can update schedules in either of two ways:

- By importing from a spreadsheet**. If you have many schedules to modify, use this method. See [Import and Export Objects](#) and [Import Schedules](#).
- Via the user interface**. If you have only a few schedules to modify, this is the easiest way.

The steps below provide guidance on how to identify and edit schedules associated with a Default Presenter. You should also identify and edit any sections associated with a Default Presenter as soon as you can assign Academic Staff to the section. See the [People and Roles](#) section of the [Manage Sections](#) page for additional information.

1. Navigate to **Schedules > Schedules**.
2. In the Keyword Search field, enter **default presenter**.
3. Review the list of schedules assigned to the Default Presenter and decide how you will edit the schedules.
 - a. Hover over the schedule and click **edit**.
 - b. Remove the Default Presenter

Search						
Filter By : Date		From :	To :	Keyword Search : <input type="text" value="Default Presenter"/>	<input type="button" value="Search"/>	<input type="button" value="Clear"/>
All: 45		Active: 1	Draft: 0	Completed: 44	21 - 40 of 45	
Title	Presenter	Room	Summary	Status	Capturing Device	
<input type="checkbox"/> dev deletion1 test-test	Default Presenter	Cap2 Campus: Cap2 Building, Cap2 Room	7/3/13 - 7/3/13 1:07 PM - 1:09 PM	Completed	00-50-c2-7b-1f-d5 (since 7/2/13 10:44 PM - 7/3/13 1:07 PM)	
<input type="checkbox"/> Device del as of Jul4 Course used for device deletion-Section used for Device Deletion	Default Presenter	Cap2 Campus: Cap2 Building, Cap2 Room	7/4/13 - 7/4/13 2:47 PM - 2:52 PM	Completed	00-50-c2-7b-1f-d5 (since 7/3/13 1:59 PM - 7/4/13 2:47 PM)	
<input type="checkbox"/> Device deletion 1 with cap2 test-test	Default Presenter	Cap2 Campus: Cap2 Building, Cap2 Room	7/3/13 - 7/3/13 11:14 AM - 11:17 AM	Completed	00-50-c2-7b-1f-d5 (since 7/2/13 10:44 PM - 7/3/13 11:14 AM)	
<input type="checkbox"/> device deletion3 test-test	Default Presenter	Cap2 Campus: Cap2 Building, Cap2 Room	7/3/13 - 7/3/13 1:30 PM - 1:33 PM	Completed	00-50-c2-7b-1f-d5 (since 7/3/13 1:14 PM - 7/3/13 1:30 PM)	
<input type="checkbox"/> Device Deletion 4 test-test	Default Presenter	Cap2 Campus: Cap2 Building, Cap2 Room	7/3/13 - 7/3/13 1:50 PM - 1:53 PM	Completed	00-50-c2-7b-1f-d5 (since 7/3/13 1:47 PM - 7/3/13 1:50 PM)	
<input type="checkbox"/> Device Deletion as of Jul4 - retiring while capturing Course used for device deletion-Section used for Device Deletion	Default Presenter	Cap2 Campus: Cap2 Building, Cap2 Room	7/4/13 - 7/4/13 3:02 PM - 3:07 PM	Completed	00-50-c2-7b-1f-d5 (since 7/3/13 1:59 PM - 7/4/13 3:02 PM)	
<input type="checkbox"/> device deletion as of Jul 8 Course used for device deletion-Section used for Device Deletion	Default Presenter	Cap1 Campus: Cap1 Building, Cap1 Room	7/8/13 - 7/8/13 9:32 AM - 9:35 AM	Completed	00-50-c2-8e-a9-c0 (since 7/2/13 4:16 PM - 7/10/13 9:32 AM)	
<input type="checkbox"/> Device deletion during cap / processing test-test	Default Presenter	Cap2 Campus: Cap2 Building, Cap2 Room	7/3/13 - 7/3/13 1:23 PM - 1:26 PM	Completed	00-50-c2-7b-1f-d5 (since 7/3/13 1:14 PM - 7/3/13 1:23 PM)	

If you have a lot of schedules to modify, prepare and import a spreadsheet. See [Import Schedules](#). If you have only a few schedules to modify, edit each schedule.

- a. Hover over the schedule and click **edit**.
- b. Remove the Default Presenter
- c. Add the new Instructor or Presenter.

Presenters	
Presenter :	<input type="text" value="Presenter, Default (defaultpresenter@echo360.com)"/> <input type="button" value="Add >>"/> <input type="button" value="remove"/>
<small>Search using partial first name, last name and/or email address</small>	

Be sure you also to [modify the sections](#) to reflect the change in Instructors from Default Presenter.

Publishing

In this section:

- [Add a Publisher](#)
- [Edit a Publisher](#)
- [Remove a Publisher](#)

Add a Publisher

The process for adding a publisher is specific to each publisher. See the following pages for information about each publisher.

- [Blackboard Learning Management Systems](#)
- [Moodle Learning System](#)
- [LTI-Based Publishing](#)

- [Email Publisher](#)
- [Closed Captioning and Transcript Publisher](#)
- [iTunes U](#)
- [RSS Feeds](#)
- [ANGEL Learning Management Suite](#)
- [Echo360 Search Indexing](#)
- [3Play Media](#)
- [TWEN](#)

Edit a Publisher

1. Log in as an Administrator.
2. Navigate to **Configuration > Publishers**.
3. Hover over the publisher you want to edit.
4. Select **edit**.
5. Modify the fields as needed. The fields differ by publisher. See the following pages for information about each publisher.
 - [Blackboard Learning Management Systems](#)
 - [Moodle Learning System](#)
 - [LTI-Based Publishing](#)
 - [Email Publisher](#)
 - [Closed Captioning and Transcript Publisher](#)
 - [iTunes U](#)
 - [RSS Feeds](#)
 - [ANGEL Learning Management Suite](#)
 - [Echo360 Search Indexing](#)
 - [3Play Media](#)
 - [TWEN](#)

Remove a Publisher

A publisher is usually applied to a specific section or Echo. See the links above for instructions on applying a publisher to a section.

You can delete a publisher that has failed. If the publisher has never failed, and it is still applied to a section or Echo, you cannot delete it.

Blackboard Learning Management Systems

In this section:

- [Overview](#)
- [Traditional Publishing Methods](#)
- [Recommended Publishing Method - LTI-Based Publishing](#)

Overview

You can publish to Blackboard, the learning management system. *Publishing* means that when an Echo is available, Blackboard does the following.

- Creates a new announcement for the course with capture name, date and time information.
- Creates a detailed link (including capture name, date, and time) to the Echo in a content area for the course. If a Class Capture content area is available, the link is posted there. If a Class Capture content area is not

available, the link is posted to Course Documents.

- Adds the Echo360 icon to all announcements and links, so students can easily identify Echoes.

EchoSystem supports the following Blackboard versions.

- Blackboard Learning Management System Enterprise, versions 7.3 through 9.1. For any of these versions:
 - Install and configure the Blackboard Building Block.
 - Enable seamless login.
 - See [Blackboard Learning Management System Enterprise 7.3-9.1 - Individual Link Publishing](#) for instructions on both processes.
- Blackboard Learning System Vista 4 and CE. Add the publisher and enroll trusted users. See [Blackboard Learning System, Vista 4 and CE 6 - Individual Link Publishing](#).

Traditional Publishing Methods

If you have BlackBoard 9.1, two traditional publishing methods are supported:

Individual Link Publishing means that users see just Echoes and [additional materials](#) on the BlackBoard page. This publishing method has been supported since EchoSystem 2.3. See [Blackboard Learning Management System Enterprise 7.3-9.1 - Individual Link Publishing](#) for details.

EchoCenter Publishing means that users see the [EchoCenter page](#). This newer publishing method has been supported since EchoSystem 4.0. We recommend that you implement EchoCenter publishing. With this method, users see a course list page, called an EchoCenter page, not just individual Echoes and additional materials. The EchoCenter page offers:

- A convenient, intuitive dashboard that groups all materials (Echoes, Media Imports, and Personal Capture recordings) together by date and lecture.
- An organization that matches the syllabus and the mental model of students and Academic Staff. If your license includes the Collaboration and Statistics Service and you implement EchoCenter publishing, you can also offer:
- Different pages for students and Instructors.
 - For students: Access to discussions and course notes (bookmarks).
 - For students and Instructors: Access to live webcasts (if offered by the section).
 - For instructors: Most student features plus access to course statistics, engagement analytics, and Echo-specific heat maps.

See [Blackboard Learning Management System Enterprise 9.1 - EchoCenter Publishing](#) for details.

Recommended Publishing Method - LTI-Based Publishing

You can use LTI-Based publishing if you have:

- Blackboard, version 9.1 Service Pack 9 or higher, and
- EchoSystem 5.2 with Service Pack 2 or higher

We recommend that you use LTI-Based publishing instead of the traditional publishing methods for these reasons:

- LTI-Based publishing **supports EchoCenter publishing**, which is recommended instead of individual link publishing.
- LTI is a **published standard**. The information passed between the systems is secured and authorized, and can ultimately provide for viewing analytics through the ESS.
- LTI-Based publishing is **dynamic**, but traditional publishing is static. Static publishing means that if you change security settings or if you configure a publisher incorrectly, you must repost links to the learning management system (LMS). In dynamic publishing, by contrast, any changes made to the courses or

sections are passed through automatically.

- LTI configuration on the ESS is **simple**. It requires only an LTI profile and an association between the ESS section and the LMS course via the Course IDs.

See [LTI-Based Publishing](#) and [Blackboard LTI](#) for details.

Blackboard Learning Management System Enterprise 7.3-9.1 - Individual Link Publishing

In this section:

- [Overview](#)
- [Install the Building Block](#)
- [Configure the Blackboard Building Block](#)
- [Enable Seamless Login](#)
 - [Before You Begin](#)
 - [Add the Trusted System in the ESS](#)
 - [Add the Blackboard Publisher in the ESS](#)
 - [Configure the Blackboard Building Block for Seamless Login](#)
 - [Troubleshooting Seamless Login](#)
- [Add Blackboard to Each Section](#)
- [Troubleshooting Individual Link Publishing](#)

Overview

EchoSystem supports Blackboard Learning System Enterprise, versions 7.3 through 9.1.

If you have been using the building block for some time and have run into issues after upgrading to Blackboard 9.1, use these instructions to delete the old building block and install the new one.

Enabling Blackboard as an EchoSystem publisher consists of these phases:

1. [Install the Blackboard building block.](#)
2. [Configure the Blackboard building block.](#)
3. [Add Blackboard as a publisher.](#)
4. [Enable seamless login.](#)
5. [Add Blackboard to each section.](#) After you enable Blackboard as a publisher, specify it as the publisher for each section. This ensures that Echoes for each section publish to Blackboard.

Automated posting of Echo links into Blackboard is accomplished by the HTTP POST mechanism and the Blackboard Building Block. The Blackboard Building Block is installed on the Blackboard server.

Install the Building Block

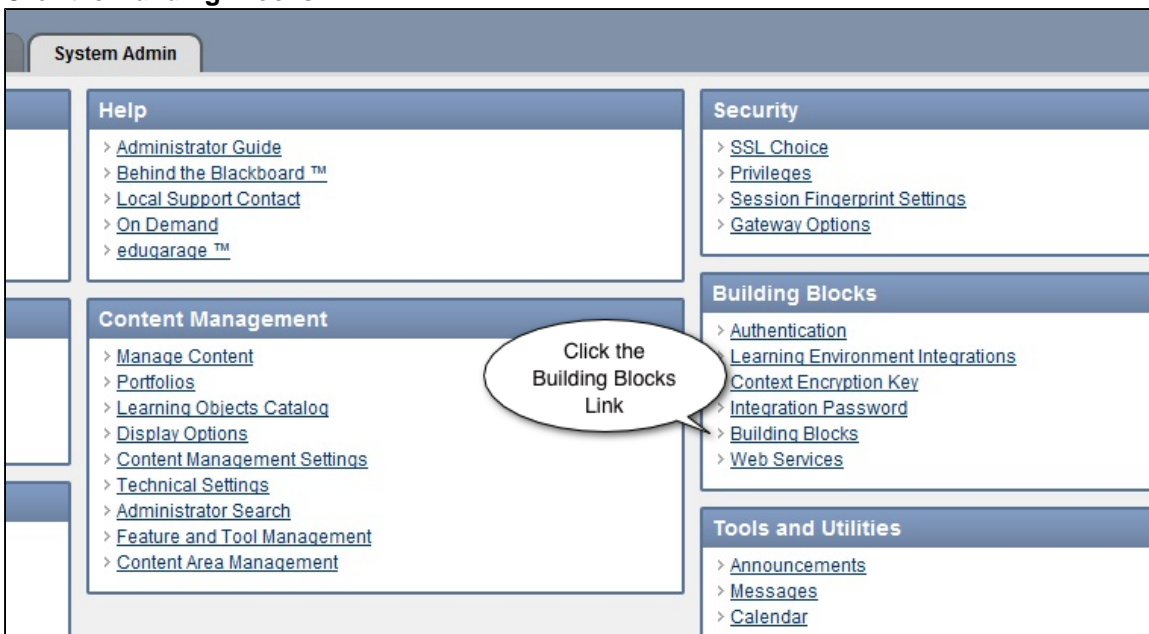
The screen shots in this section are from version 9.1.

1. If you have an older version of the Building Block installed, delete it.
2. Download the Blackboard Building Block from the [Echo360 downloads page](#). Store the downloaded file in an easy-to-access location.

Remember this location.

You will need to know this location later.

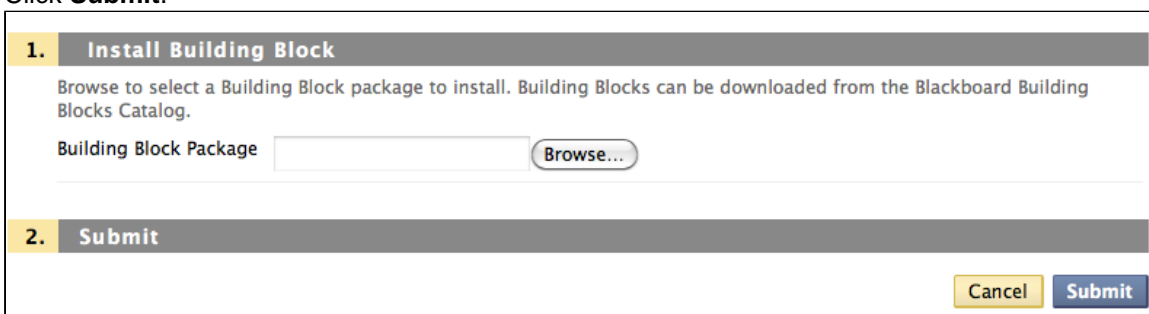
3. Log in to Blackboard as a user with system administration privileges.
4. Navigate to the **System Admin** tab as shown in the figure below.
5. Click the **Building Blocks** link.



6. Select **Installed Tools**.



7. Click the **Upload Building Blocks** button.
8. Browse for the Building Block. The file name is **standard-4.0.x.war** where **x** indicates the last element of the release number.
9. Click **Submit**.



10. Click **OK**.
11. Notice that the building block ("EchoSystem Content Creator") is listed, as shown in the figure below, but when first installed, is shown as Inactive.
12. Select the **Available** option from the list.

EchoSystem Content Creator	Echo360, Inc.	4.0.2	Available	Available
GoogleModule	Google	1.1.0	Available	Unavailable

Configure the Blackboard Building Block

1. On the Building Blocks page, find the EchoSystem Content Creator item.
2. Click the **Settings** button. The Configure Echo Content Creator page appears.
3. Configure the first two setting groups, as shown in the figure below.

Configure Echo Content Creator

1 EchoSystem Basic Connection Properties (red fields required)

Basic connection properties allow the EchoSystem Server to connect to Blackboard and post data. The Shared Secret is defined in both the EchoSystem Server Blackboard Publisher and Blackboard Building Block (here). The username needs to be a valid Blackboard user but the password for this user is not required. Typically a dedicated Blackboard user is defined for this purpose. These properties are required for both the individual Echo and EchoCenter publishing options

Shared Secret:

Allow Pre Version 4.0 Authentication Mechanism?
 Check user for course membership?

2 EchoSystem Seamless Connection Properties

Seamless connection properties allow the EchoSystem Server to trust Blackboard's authentication and authorization of users for viewing content. Set these properties to secure content by course without a duplicate login. These values are generated by the EchoSystem Server by creating a Trusted System. Seamless connections are supported by both individual Echo and EchoCenter publishing options

Consumer Key:

Consumer Secret:

Realm:

Field Name	Description
Shared Secret	The integration uses a dedicated shared secret configured in the building block instead of the administrator user password. The shared secret, set by the Blackboard administrator, allows Blackboard and the EchoSystem Server (ESS) to establish a handshake. The shared secret values on the ESS and the Blackboard Building Block must match. In the ESS, navigate to Configuration > Publishers and edit the Blackboard publisher.
Allow Pre Version 4.0 Authentication Mechanism?	<p>Check this box only if:</p> <ul style="list-style-type: none"> • You are running different EchoSystem Servers that point to the same instance of BlackBoard • At least one of the EchoSystem Servers has release 3.0, update 5 or earlier installed <p>Checking this box allows variant EchoSystem Servers to send updates to a single BlackBoard instance.</p> <p>When this box is checked, you cannot use the seamless security module or trusted systems.</p>
Check User for Course Membership	If checked, Blackboard will verify that the student is enrolled in the course before allowing access. Enabling this option offers additional access control.
Consumer Key	Enter the Consumer Key you established when you added the trusted system .

Consumer Secret	Enter the Consumer Secret you established when you added the trusted system .
Realm	In most cases, you can leave this field at the default value. Change it only if you are in the particular circumstances described in Create the Security Module .

4. Configure the next two settings groups, as shown below.

3 Individual Echo Recording Publishing Properties (red fields required)

These properties control how individual Echoes appear in Blackboard upon publishing. Blackboard can post an announcement, can set available times for the Echoes, etc.

Default Content Area:

Alternate Content Area:

Place content in a subfolder within content area?
 If so, enter subfolder name:

Add announcement each time a class capture is posted?

Make newly posted content available by default?

Allow Blackboard to track views of new custom content?

Content Available Until:

4 EchoCenter Publishing Options (requires EchoSystem 4.0 or greater)

EchoCenter publishing provides the viewers with the more functional course/section specific EchoCenter portal interface. The EchoCenter portal page can be embedded in Blackboard or opened in a new window. It will appear in the course table of contents as "EchoCenter". Include the section identifier when posting multiple EchoSystem sections to a single course in Blackboard. Please note that due to a new feature in Bb Learn 9.1 SP3 or later, the EchoCenter link will not appear in Blackboard for 30 minutes after the data is published to Blackboard

Include Echo System Section Identifier

Display:

5. Submit

Field Name	Description
Default Content Area	The content area for posting EchoSystem links. If a default content area does not exist, the building block uses the Alternate Content Area value.
Alternate Content Area	The content area for posting EchoSystem links. This content area is used if a default content area does not exist.
Place content in a subfolder within content area?	You can place content in a subfolder within the content area. Subfolders are only supported when posting content to the default content area.
If so, enter subfolder name	Subfolder name.
Add announcement each time a class capture is posted?	If checked, an announcement is posted when an Echo is posted.

Make newly posted content available by default?	If checked, the EchoSystem content link is available in the UI. Links can be made available later through the course control panel.
Allow Blackboard to track views of new custom content?	If checked, view statistics are enabled for the Echo classroom content link. Links can be tracked later through the course control panel.
Content Available Limit	If checked, the EchoSystem content link is available in the UI. Links can be made available later through the course control panel.
Include Echo System Section Identifier	We recommend checking this box. Doing so displays the section identifier on the Blackboard course page.
Display	Select from the drop-down list. The course list page can open in the Blackboard course page or in a new tab in the browser.

5. Click **Submit**.
6. Look for a message indicating success.

Enable Seamless Login

You can authenticate students seamlessly before allowing them to view content published in Blackboard. "Seamlessly" means that once a student has authenticated against Blackboard, that authentication is transparently ("seamlessly") passed to the ESS. The ESS validates that the student has been authenticated by Blackboard and does not ask the student for credentials a second time.

To enable seamless login, follow these phases:

1. Enable the trusted system in the ESS.
2. Enable the publisher in the ESS.
3. Configure the Blackboard Building Block.



Seamless Login is Optional

Echoes are published to Blackboard whether or not you enable seamless login.

Before You Begin

Ensure that:

- You are using a supported version of Blackboard. Seamless login is supported for Blackboard Learning System Enterprise, versions 7.3 through 9.1.
- You have installed the latest EchoSystem Building Block on your Blackboard server.
- You have enabled the Blackboard publisher in the EchoSystem.

Add the Trusted System in the ESS

Be sure to record the Consumer Key and Consumer Secret. You will need both of these items when you [configure](#)

[the Blackboard Building Block.](#)

1. Log in to the ESS as an Administrator.
2. Navigate to **System > Trusted Systems**.

Trusted Systems 1 - 1 of 1

System Name ▲	Description
ecp	EchoCenter

View: 20 Systems per Page 1 - 1 of 1

[Add](#)

3. Click **Add**. The Add Trusted System page appears.

Add Trusted System

Trusted System Information

System Name :

Description :

Consumer Key :

[Save](#) [Cancel](#)

4. Complete the required fields:
 - **System Name**. We recommend the name of the system being integrated, such as "Blackboard" or "Moodle".
 - **Description**. We recommend the URL of the system being integrated.
 - **Consumer Key**. We recommend a simple string, such as your initials, for the Consumer Key.
5. Click **Save** to commit your edits and reveal your *Consumer Secret*.

⚠ Record the Consumer Key and Consumer Secret.
 Make a note of the Consumer Key and copy the Consumer Secret value from the Trusted Systems page into a text editor. Make sure you copy the equals signs (==) at the end of the Consumer Secret. **Do not copy the extra character of white space that follows the equals signs (==).**

6. Click **Done**.

Add the Blackboard Publisher in the ESS

1. Log in to the ESS as an administrator.
2. Navigate to **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears.

Add Publisher

Publisher Details

Name :

Description :

Organization : Echo360 ▾

Publisher Type : Choose... ▾

Use by Default :

Save
Cancel

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **Blackboard Learning Management System Enterprise 7.3-9.1**. The page expands to include a section on Publisher Configuration that is specific to this version of Blackboard.

Connection Properties

Use Seamless Login : User Name :

URL : Shared Secret :

Publish Individual Links Options

Only applies to the "Publish individual Links" option below

Post Podcast : Post Vodcast :

Post EchoPlayer :

Publishing Mode

The "Publish EchoCenter" option is the preferred option providing a richer experience for both students and instructors. This option is supported for Blackboard versions 8, 9.0, and 9.1. Echo360 maintains support for Blackboard's latest service packs for each version.

Publishing Mode : Publish EchoCenter ▾

Save
Cancel

7. If you want Blackboard Learning Management System Enterprise 7.3-9.1 to be your default publisher, select the **Use by Default** box.
8. In the Connection Properties group, select the **Use Seamless Login** check box to enable the module.
9. Populate the other fields in the Connection Properties group, as described in the following table:

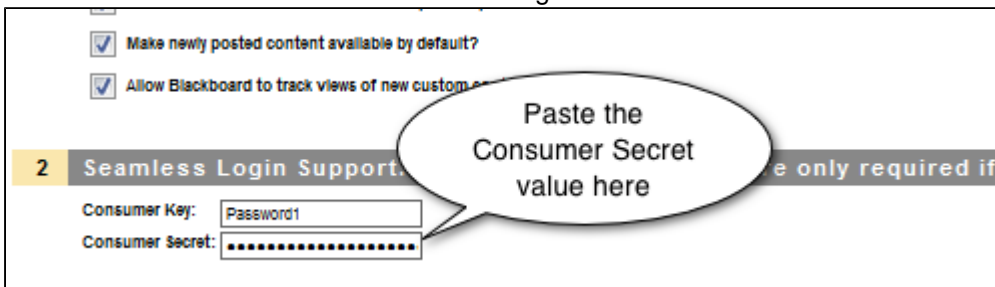
Field Name	Description	Example
User Name	Enter the Echo360 Blackboard user name	Echo360user

URL	The URL of the Blackboard Learning Management System Enterprise server	<div style="border: 1px dashed blue; padding: 5px; width: fit-content; margin: auto;"> <pre>https://ess.ech ostate.edu/Blac kboard</pre> </div>
Shared Secret	Enter the shared secret you (or the Blackboard administrator) created in the building block.	–

10. If you are publishing individual links, check or clear check boxes as desired in the Publish Individual Links Options group. **Post EchoPlayer** means that you will post a rich media version viewable in the EchoPlayer (student player). If you are publishing to the EchoCenter (EchoCenter publishing), ignore this settings group.
11. In the Publishing Mode group, select either **Publish EchoCenter** or **Publish Individual Links**.
 - **Publish EchoCenter** means that Blackboard will display Echoes on the EchoCenter page. See [Manage the EchoCenter](#) for details on this feature.
 - **Publish Individual Links** means that Blackboard will display Echoes in the default Blackboard format.
12. Click **Save** to commit your edits.
13. Publish a course to Blackboard to verify that the building block is correctly configured.

Configure the Blackboard Building Block for Seamless Login

1. Log in to Blackboard as an Administrator.
2. Navigate to **System Admin > Building Blocks**.
3. Select **Installed Tools**.
4. In the list, find the Echo360 Building Block named EchoSystem Content Creator.
5. Click the **Settings** button.
6. In section 2, edit the **Consumer Secret** field, entering the same value you entered in the ESS by pasting the Consumer Secret value from the text editor. Make sure you do not copy the extra blank character you may have at the end of the Consumer Secret string.



7. Click **Submit**.

Troubleshooting Seamless Login

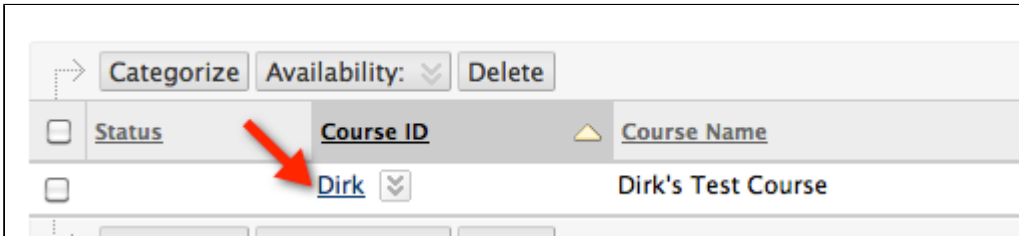
See this KB (Knowledge Base) article to diagnose seamless login failures: [Troubleshooting seamless content authentication for Blackboard](#)

⚠ Accessing the Knowledge Base
 You will need a customer portal login to access the Knowledge Base. Contact [Technical Support](#) if you need a login.

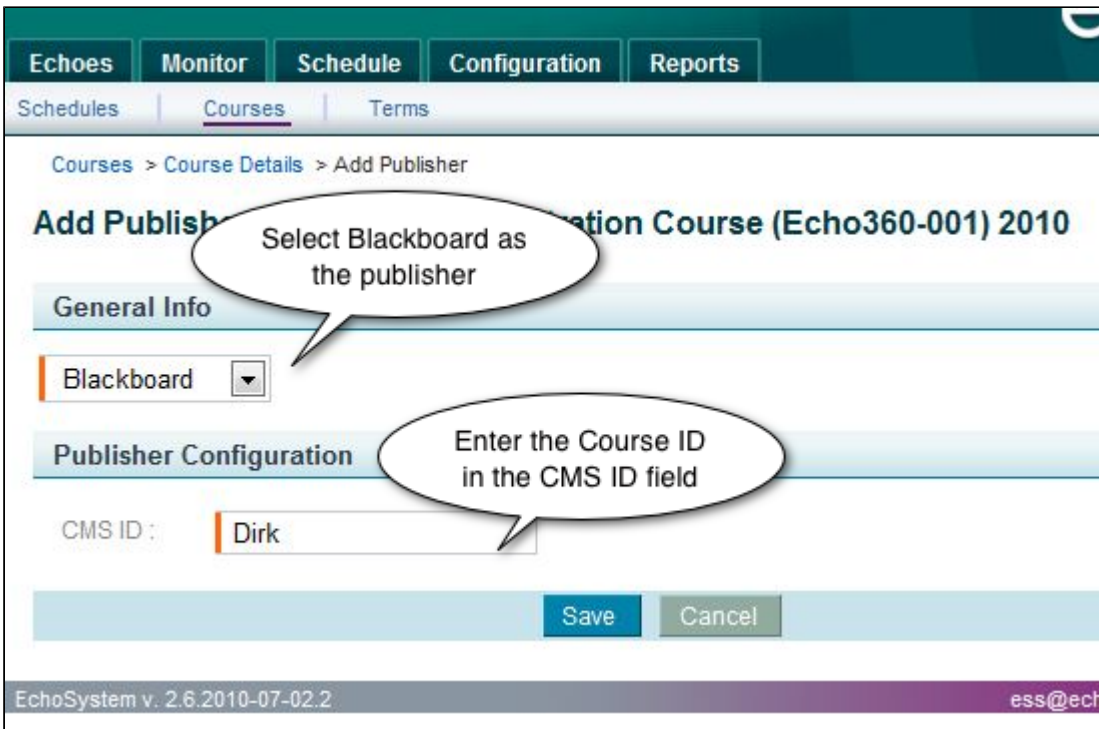
Add Blackboard to Each Section

After you enable Blackboard as a publisher, specify it as the publisher for each section. This ensures that Echoes for each section publish to Blackboard.

1. Get the Blackboard Course ID.
 - a. In Blackboard, navigate to **System Admin > Courses**.
 - b. Note the Course ID.



2. In the ESS, navigate to the Section Details page.
3. Scroll to the bottom of the page.
4. Click **Add Publisher**.
5. On the Add Publisher page:
 - a. Select Blackboard as the publisher
 - b. Enter the Course ID in the CMS ID field.



6. Click **Save**.

Troubleshooting Individual Link Publishing

See these KB (Knowledge Base) articles:

- To diagnose and correct general publishing failures: <https://na6.salesforce.com/5018000000XTUS>
- To diagnose seamless login failures: <https://na6.salesforce.com/5018000000iikik>



Accessing the Knowledge Base

You will need a customer portal login to access the Knowledge Base. Contact [Technical Support](#) if you need a login.

Blackboard Learning Management System Enterprise 9.1 - EchoCenter Publishing

In this section:

- [Overview](#)
- [Verify that the ecp Trusted System Exists](#)
- [Add the Blackboard Publisher in the ESS](#)
- [Review the EchoCenter Settings on the Section](#)
- [Add Blackboard to Each Section](#)
- [Test the EchoCenter Link on the Blackboard Page](#)

Overview

You may already publish individual links and supplemental materials to Blackboard ("individual link publishing"). You can publish EchoCenter pages to Blackboard also ("EchoCenter publishing"). In EchoCenter publishing, the EchoCenter page appears on the Blackboard page for the section.

You can support both publishing methods. Some sections can publish via individual link publishing, others can use EchoCenter publishing. To do this, you will need to create two publishing instances, one for individual link publishing and one for EchoCenter publishing.

If you decide to enable EchoCenter publishing in Blackboard, you must decide if you want to enable [standard EchoCenter publishing](#) or [Collaboration Service EchoCenter publishing](#). Standard EchoCenter publishing requires only that you have Blackboard Learning System Enterprise version 9.1 installed. To enable Collaboration Service EchoCenter publishing in Blackboard, you must:

- Have Blackboard Learning System Enterprise version 9.1 installed
- Have enabled seamless login with LDAP or have enabled the seamless security module
- Have subscribed to the [Collaboration and Statistics Service](#)

Enabling EchoCenter publishing consists of these required phases. Some of these phases are also required for individual link publishing.

1. [Install the Building Block](#) .
2. [Configure the Blackboard Building Block](#).
3. [Verify that the ecp trusted system exists in the ESS](#).
4. [Add the Blackboard publisher in the ESS](#).
5. [Review the EchoCenter settings on the section](#).
6. [Add Blackboard to each section](#).
7. [Test the EchoCenter link on the Blackboard page](#).


Who can do this?

- System Administrator
- Admin of Parent Organization

Verify that the ecp Trusted System Exists

You must have the ecp trusted system installed.

1. Navigate to **System > Trusted Systems**.
2. Look for a trusted system called **ecp**.

Trusted Systems	
System Name ▲	Description
ecp 	EchoCenter

Add the Blackboard Publisher in the ESS

1. Log in to the ESS as an administrator.
2. Navigate to **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears.

Add Publisher

Publisher Details

Name :

Description :

Organization :

Publisher Type :

Use by Default :

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **Blackboard Learning Management System Enterprise 7.3-9.1**. The page expands to include a section on Publisher Configuration that is specific to this version of Blackboard.

Connection Properties	
Use Seamless Login : <input type="checkbox"/>	User Name : <input type="text"/>
URL : <input type="text"/>	Shared Secret : <input type="text"/>
Publish Individual Links Options	
<i>Only applies to the "Publish individual Links" option below</i>	
Post Podcast : <input checked="" type="checkbox"/>	Post Vodcast : <input checked="" type="checkbox"/>
Post EchoPlayer : <input checked="" type="checkbox"/>	
Publishing Mode	
<i>The "Publish EchoCenter" option is the preferred option providing a richer experience for both students and instructors. This option is supported for Blackboard versions 8, 9.0, and 9.1. Echo360 maintains support for Blackboard's latest service packs for each version.</i>	
Publishing Mode :	<input type="text" value="Publish EchoCenter"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

7. If you want Blackboard Learning Management System Enterprise 7.3-9.1 to be your default publisher, select the **Use by Default** box.
8. In the Connection Properties group, select the **Use Seamless Login** check box to enable the module.
9. Populate the other fields in the Connection Properties group, as described in the following table:

Field Name	Description	Example
User Name	Enter the Echo360 Blackboard user name	Echo360user
URL	The URL of the Blackboard Learning Management System Enterprise server	<code>https://ess.ech ostate.edu/Blac kboard</code>
Shared Secret	Enter the shared secret you (or the Blackboard administrator) created in the building block.	–

10. If you are publishing individual links, check or clear check boxes as desired in the Publish Individual Links Options group. **Post EchoPlayer** means that you will post a rich media version viewable in the EchoPlayer (student player). If you are publishing to the EchoCenter (EchoCenter publishing), ignore this settings group.
11. In the Publishing Mode group, select either **Publish EchoCenter** or **Publish Individual Links**.
 - **Publish EchoCenter** means that Blackboard will display Echoes on the EchoCenter page. See [Manage the EchoCenter](#) for details on this feature.
 - **Publish Individual Links** means that Blackboard will display Echoes in the default Blackboard format.
12. Click **Save** to commit your edits.
13. Publish a course to Blackboard to verify that the building block is correctly configured.

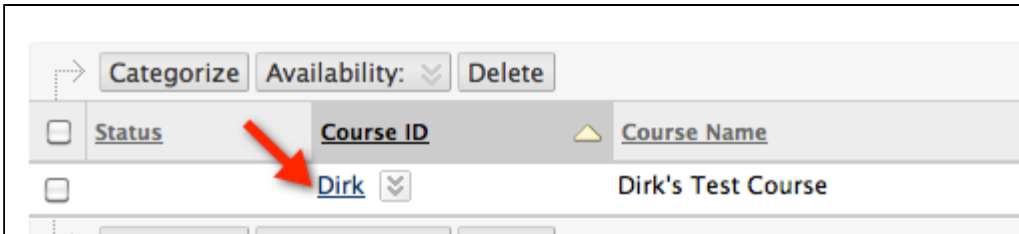
Review the EchoCenter Settings on the Section

You may wish to modify some [EchoCenter](#) settings in the Section configuration details.

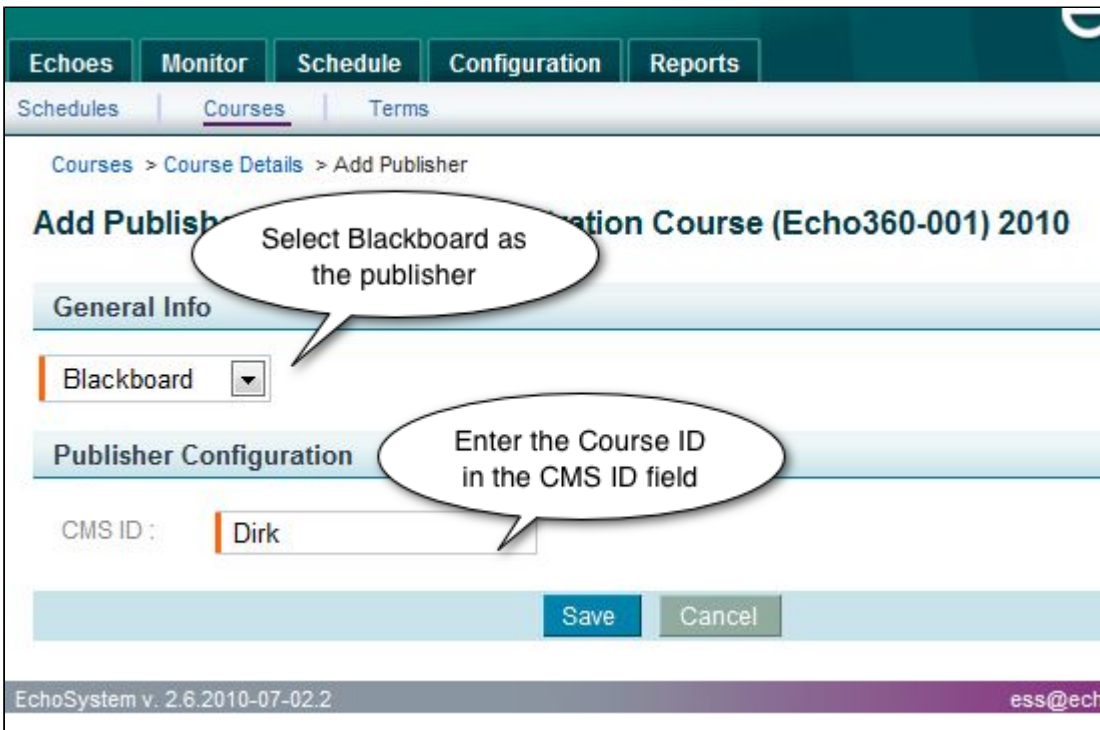
Add Blackboard to Each Section

After you enable Blackboard as a publisher, specify it as the publisher for each section. This ensures that Echoes for each section publish to Blackboard.

1. Get the Blackboard Course ID.
 - a. In Blackboard, navigate to **System Admin > Courses**.
 - b. Note the Course ID.



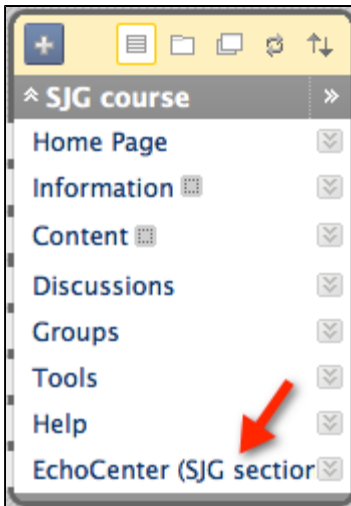
2. In the ESS, navigate to the Section Details page.
3. Scroll to the bottom of the page.
4. Click **Add Publisher**.
5. On the Add Publisher page:
 - a. Select Blackboard as the publisher
 - b. Enter the Course ID in the CMS ID field.



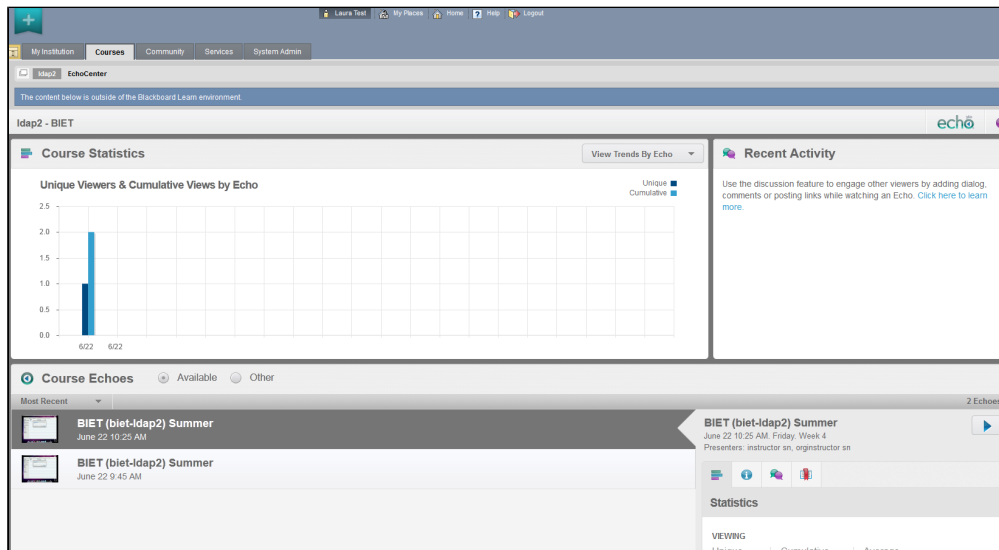
6. Click **Save**.

Test the EchoCenter Link on the Blackboard Page

1. In Blackboard, navigate to the course page for the section.
2. Verify that you see the EchoCenter link, as shown in the figure below.



3. Click on the link. You should see the EchoCenter page, as shown below. Depending on how you configured the [Display](#) setting on the Blackboard Building Block, you will see the EchoCenter page either:
- Embedded in the Blackboard interface, or
 - In a new browser tab



Blackboard Learning System, Vista 4 and CE 6 - Individual Link Publishing

In this section:

- [Overview](#)
- [Add the Blackboard Learning System \(Vista 4 and CE 6\) Publisher](#)
- [Create and Enroll the Trusted User](#)
- [Add Blackboard CE/Vista to Each Section](#)

Overview

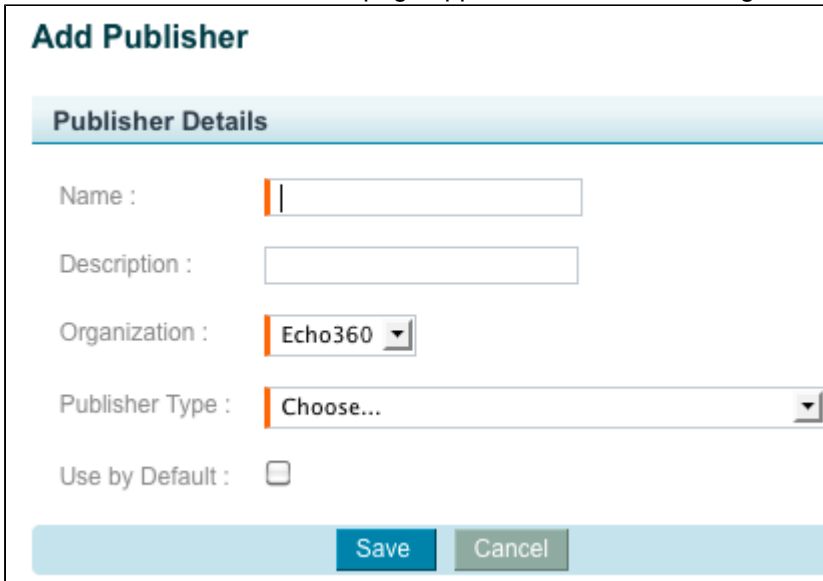
Enabling Blackboard as an EchoSystem publisher for the Learning System CE and Vista versions consists of these phases:

1. [Add the publisher](#) in the ESS.
2. [Create and enroll the trusted user](#) in the Learning System CE or Vista server.
3. [Add Blackboard to each section](#). After you enable Blackboard as a publisher, specify it as the publisher for each section. This ensures that Echoes for each section publish to Blackboard.

 No Powerlink is needed for this integration.

Add the Blackboard Learning System (Vista 4 and CE 6) Publisher

1. Log in to the ESS as a System Administrator.
2. Select **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears as shown in the figure below.



Add Publisher

Publisher Details

Name :

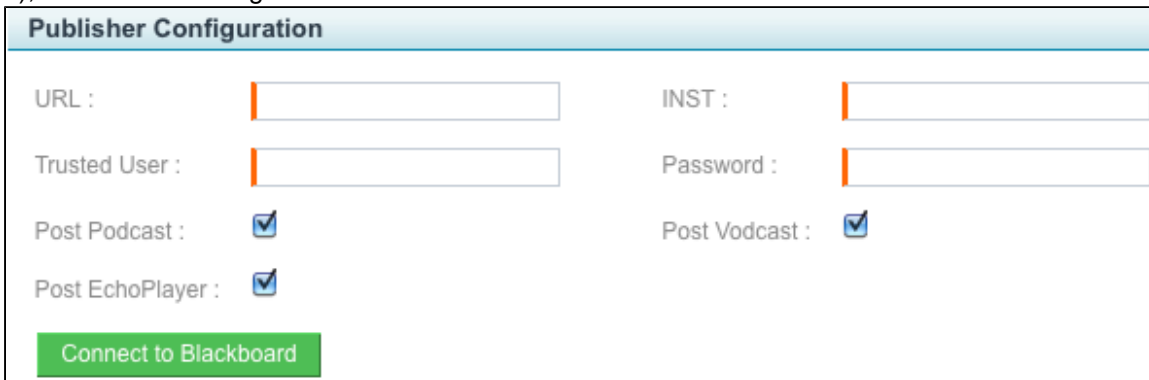
Description :

Organization :

Publisher Type :

Use by Default :

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **Blackboard Learning System (Vista 4 and CE 6)**. The page expands to include a section on Publisher Configuration that is specific to Blackboard Learning System (Vista 4 and CE 6), as shown in the figure below.



Publisher Configuration

URL : INST :

Trusted User : Password :

Post Podcast : Post Vodcast :

Post EchoPlayer :

7. If you want Blackboard Learning System (Vista 4 and CE 6) to be your default publisher, select the **Use by Default** box.
8. Complete the fields as described in the following table:

Field Name	Description
URL	Enter the base URL for the CE/Vista server, such as http://vista.university.edu

INST	Enter the name of the CE/Vista institution where you will publish Echoes. The name must be entered exactly as it is in CE/Vista, including capitalization and spacing.
Trusted User	Create a user account that will be used for the integration with CE/Vista.
Password	Enter a password for the trusted user account.

9. By default you will post Podcast, Vodcast, and EchoPlayer versions of your Echo to Blackboard Learning System Vista 4 and CE 6. **Post EchoPlayer** means that you will post a rich media version viewable in the EchoPlayer (student player). Change these if necessary by clearing the check boxes.
10. Click **Connect to Blackboard** to verify that a connection can be established. If it cannot be established, you receive a detailed error message.
11. Click **Save**.

Create and Enroll the Trusted User

1. Log in to the CE/Vista server as an administrator.
2. Create a new user account for the trusted user created in the ESS.

User Name and Password Must Match

The user account must have the same user name and password as specified in the ESS.

3. For every CE/Vista section to be integrated with the EchoSystem, enroll the trusted user as a section level designer.
4. Links to the Echoes appear in the calendar in the section for the day the lecture was recorded. Only links are placed in CE/Vista. No files are placed in the calendar.

Learning Context ID (LCID)

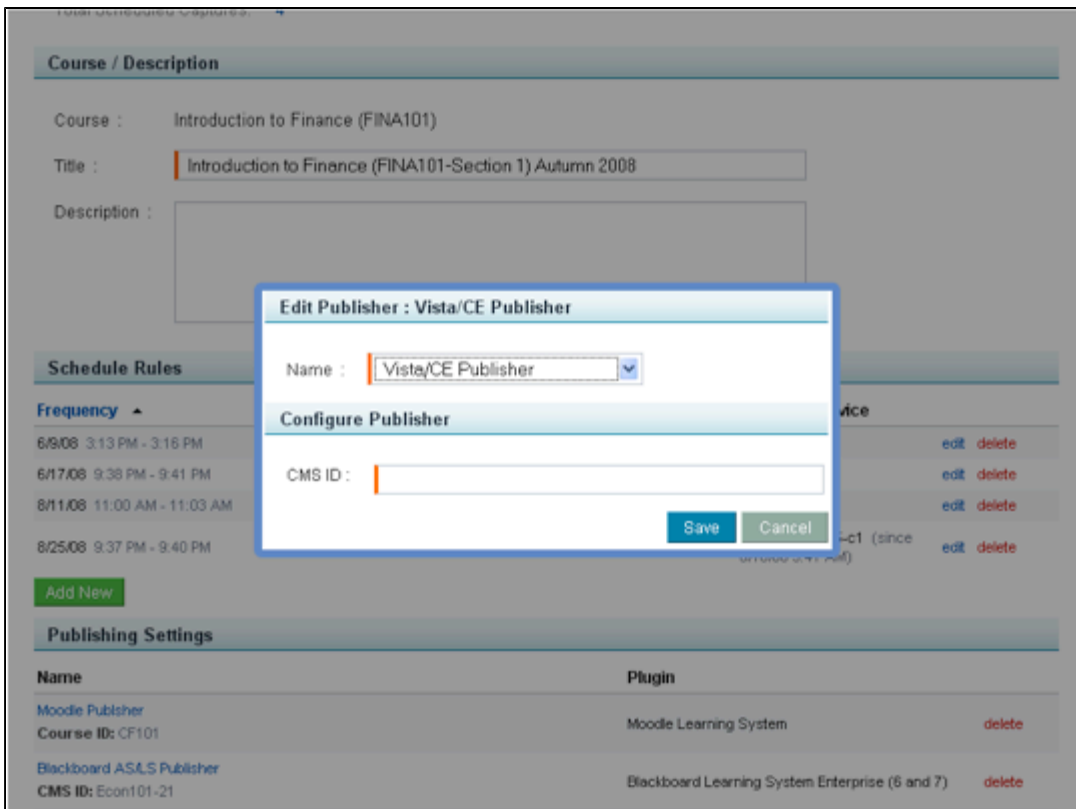
For every CE/Vista section to be integrated with the EchoSystem, you need the LCID. CE/Vista automatically generates the LCID.

Add Blackboard CE/Vista to Each Section

After you enable Blackboard CE/Vista as a publisher, you have to specify it as the publisher for each section. This ensures that Echoes for each section publish to Blackboard CE/Vista.

Follow these steps.

1. Enter the LCID from Blackboard CE/Vista in the CMS ID field.



2. Click **Save**.

Moodle Learning System

In this section:

- [Overview](#)
- [Traditional Publishing Methods](#)
- [Recommended Publishing Method - LTI-Based Publishing](#)

Overview

You can publish to Moodle, the open source learning management system, allowing students and Instructors to view materials via the Moodle calendar.

Traditional Publishing Methods

Two traditional publishing methods are supported:

Individual Link Publishing means that users see just Echoes and [additional materials](#) on the Moodle calendar. This publishing method has been supported since EchoSystem 2.3. See [Moodle - Individual Link Publishing](#) for details.

EchoCenter Publishing means that users see the [EchoCenter page](#). This newer publishing method has been supported since EchoSystem 4.0. We recommend that you implement EchoCenter publishing. With this method, users see a course list page, called an EchoCenter page, not just individual Echoes and additional materials. The EchoCenter page offers:

- A convenient, intuitive dashboard that groups all materials (Echoes, Media Imports, and Personal Capture recordings) together by date and lecture.

- An organization that matches the syllabus and the mental model of students and Academic Staff. If your license includes the Collaboration and Statistics Service and you implement EchoCenter publishing, you can also offer:
 - Different pages for students and Instructors.
 - For students: Access to discussions and course notes (bookmarks).
 - For students and Instructors: Access to live webcasts (if offered by the section).
 - For instructors: Most student features plus access to course statistics, engagement analytics, and Echo-specific heat maps.

See [Moodle - EchoCenter Publishing](#) for details.

Recommended Publishing Method - LTI-Based Publishing

You can use LTI-Based publishing if you have:

- Moodle, version 2.2 or higher, and
- EchoSystem 5.2 with Service Pack 2 or higher

We recommend that you use LTI-Based publishing instead of the traditional publishing methods for these reasons:

- LTI-Based publishing **supports EchoCenter publishing**, which is recommended instead of individual link publishing.
- LTI is a published **standard**. The information passed between the systems is secured and authorized, and can ultimately provide for viewing analytics through the ESS.
- LTI-Based publishing is **dynamic**, but traditional publishing is **static**. Static publishing means that if you change security settings or if you configure a publisher incorrectly, you must repost links to the learning management system (LMS). In dynamic publishing, by contrast, any changes made to the courses or sections are passed through automatically.
- LTI configuration on the ESS is **simple**. It requires only an LTI profile and an association between the ESS section and the LMS course via the Course IDs.

See [LTI-Based Publishing](#) and [Moodle LTI](#) for details.

Moodle - EchoCenter Publishing

In this section:

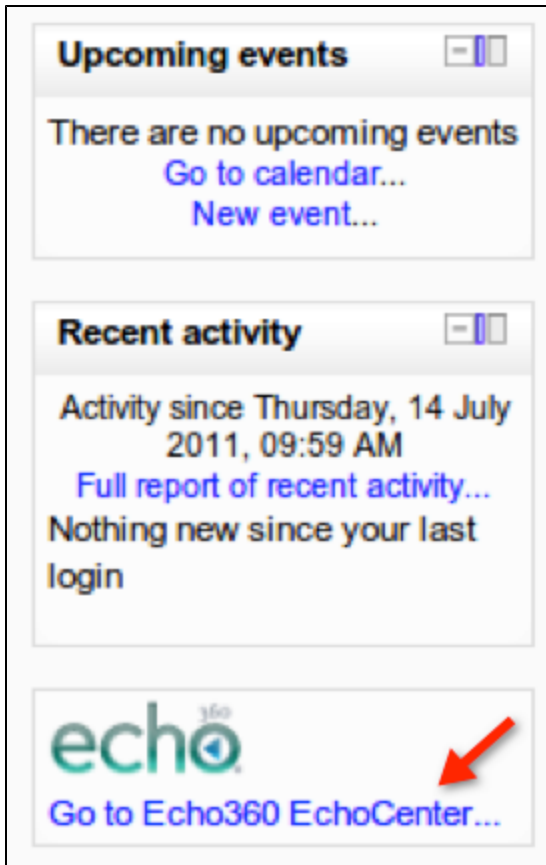
- [Overview](#)
- [Install the Moodle Plugin](#)
- [Add a Trusted System \(EchoSystem\)](#)
- [Configure the Administration Settings \(Moodle\)](#)
- [Map Moodle Courses to EchoSystem Sections \(Moodle and EchoSystem\)](#)
- [Add the EchoCenter Block to the Course \(Moodle\)](#)
- [Collaboration Service Only - Review Permissions Assigned to Roles in Moodle](#)
- [Test EchoCenter Publishing for a Section \(Moodle and EchoSystem\)](#)
- [Troubleshooting](#)

Overview

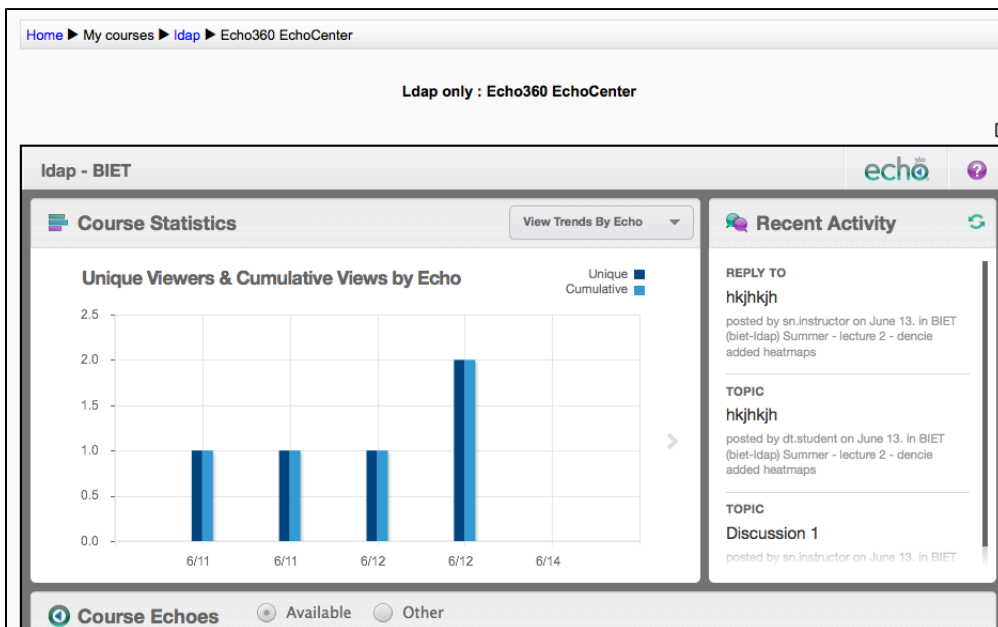
How EchoCenter Publishing Benefits Students and Academic Staff

EchoCenter publishing allows Academic Staff to create a link to the EchoCenter page in their Moodle course.

Students and Academic Staff will see the link in the Moodle course page, as shown in the figure below.



To open the EchoCenter, they click on the block. The EchoCenter page is displayed within the Moodle page layout, as shown in the figure below.



To open the EchoCenter in a new window, users click the **Open in new window** icon at the top right of their course page.

Access is seamless. No further authentication is required.

If you subscribe to the [Collaboration and Statistics Service](#) you can offer additional functionality, including [different EchoCenter pages](#) for students and Academic Staff. Users will see the correct page for their role after the plugin is installed. No further configuration is required, though you may want to [review and adjust the permissions](#) assigned to roles in Moodle.

Requirements

These instructions assume that:

- You have EchoSystem 5.0 or higher installed.
- You have Moodle versions 1.9.x through 2.4 installed. Later versions may work, but the latest tested version is 2.4.
- You have PHP version 4.3.0 or later installed on the Moodle server.
- You have the following PHP modules installed on the Moodle server:
 - Curl
 - Hash
 - Openssl
- The server running the EchoSystem can contact the server running Moodle.
- You are a Moodle Administrator.

Procedure

When you enable EchoCenter publishing, you are, essentially, setting up a link between Moodle and the ESS. To establish this link you:

1. **Set up a trusted system** (following the OAuth standard) between Moodle and the ESS. You do this establishing the trusted system in the ESS and giving Moodle the Consumer Secret and Consumer Key. This trusted system allows the ESS to accept communication from Moodle.
2. **Associate ESS sections and Moodle courses.** You do this by establishing a **Moodle Course Field** that will be compared to the ESS **External System Id** field.

Follow these phases:

1. [Install the Moodle Plugin \(Moodle\)](#).
2. [Add a Trusted System \(EchoSystem\)](#)
3. [Configure the Administration Settings \(Moodle\)](#).
4. [Map Moodle Courses to EchoSystem Sections \(Moodle and EchoSystem\)](#).
5. [Add the EchoCenter Block to the Course \(Moodle\)](#).
6. [Collaboration Service Only - Review Permissions Assigned to Roles in Moodle](#). If you do not have [Collaboration Service](#), skip this step.
7. [Test EchoCenter Publishing for a Section \(Moodle and EchoSystem\)](#).

Moodle 2.0

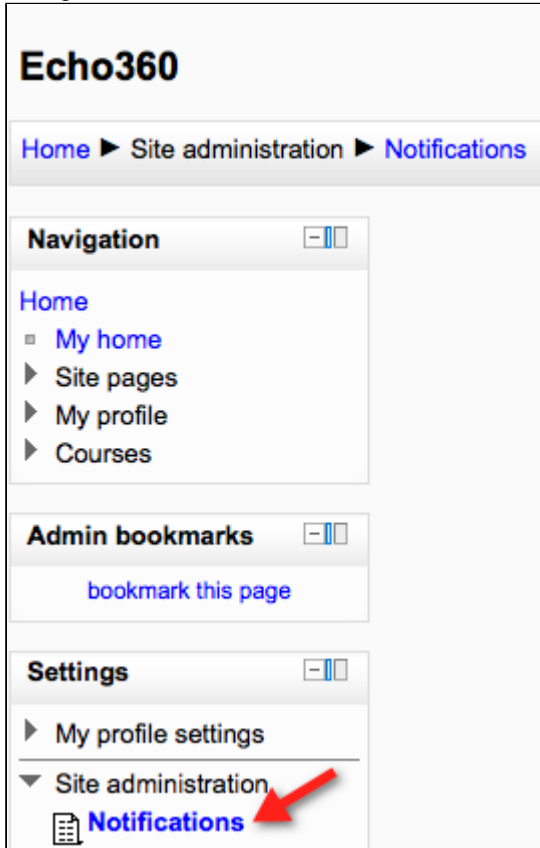
The screen shots are from Moodle 2.0.

Install the Moodle Plugin

Use the following steps to install the Echo360 Moodle plugin to your Moodle installation.

1. Download the latest Moodle plugin from the [Echo360 customer support portal](#).
2. Expand the zipped file.
3. Copy the blocks from the correct folder in the zip package to the blocks folder in your Moodle installation.
 - Echosystem's Moodle plugin is only compatible with Moodle v2.0 or higher.
 - Moodle 2.x:

- Unzip the moodle-54.zip file.
 - Copy **echo360_configuration** to **<moodle installation dir>/moodle/blocks/echo360_configuration**
 - Copy **echo360_echocenter** to **<moodle installation dir>/moodle/blocks/echo360_echocenter**
4. Install the new blocks.
- a. Log into Moodle as an Administrator.
 - b. Navigate to **Site administration > Notifications**.



5. Notice the dialog boxes shown in the figures below. You will see these only once, right after you install the plugin.

You are logged in as Admin User (Logout)

Plugins check

The following tables show the modules, blocks and filters that have been detected in your current Moodle installation. They indicate which plugins are standard, and which are not. All non-standard plugins should be checked and upgraded to their most recent versions before continuing with this Moodle upgrade.

Activity module		
Directory	Name	Status
mod/assignment	Assignment	Standard
mod/chat	Chat	Standard
mod/choice	Choice	Standard
mod/data	Data base	Standard
mod/feedback	Feedback	Standard
mod/forum	Forum	Standard
mod/glossary	Glossary	Standard
mod/imap	IM content package	Standard
mod/label	Label	Standard
mod/lesson	Lesson	Standard
mod/page	Page	Standard
mod/quiz	Quiz	Standard
mod/resource	File	Standard
mod/scorm	SCORM package	Standard
mod/survey	Survey	Standard
mod/url	URL	Standard
mod/wiki	Wiki	Standard
mod/workshop	Workshop	Standard

Blocks		
Directory	Name	Status
block/activity_modules	Activities	Standard
block/admin_bookmarks	Admin bookmarks	Standard
block/blog_menu	Blog menu	Standard
block/blog_recent	Recent blog entries	Standard
block/blog_tags	Blog tags	Standard
block/calendar_month	Calendar	Standard
block/calendar_upcoming	Upcoming events	Standard
block/comments	Comments	Standard
block/community	Community finder	Standard
block/completionstatus	Course completion status	Standard
block/course_list	Course list	Standard
block/course_overview	Course overview	Standard
block/course_summary	Course/Se description	Standard
block/echo360_configuration	echo360_configuration	Non-standard (about to be installed)
block/echo360_echocenter	echo360_echocenter	Non-standard (about to be installed)
block/feedback	Feedback	Standard
block/glossary_random	Random glossary entry	Standard
block/html	HTML	Standard
block/login	Login	Standard
block/messages	Messages	Standard
block/messages	Messages	Standard
block/network_servers	Network servers	Standard
block/profile	Logged in user	Standard
block/navigation	Navigation	Standard
block/news_items	Latest news	Standard
block/online_users	Online users	Standard
block/participants	People	Standard
block/private_files	User private files	Standard
block/quiz_results	Quiz results	Standard
block/recent_activity	Recent activity	Standard
block/rss_client	RSS client	Standard
block/search	Global search	Standard
block/search_forum	Search forum	Standard
block/sharing_links	Sharing links	Standard
block/statusbar	Self completion	Standard
block/settings	Settings	Standard
block/theme_menu	Menu menu	Standard
block/social_activities	Social activities	Standard
block/tag_picker	Filter	Standard
block/tag_youtube	Youtube	Standard
block/tags	Tags	Standard

Filters		
Directory	Name	Status
filter/activitynames	Activity names auto-linking	Standard
filter/algebra	Algebra notation	Standard
filter/anonymous	Word censorship	Standard
filter/anonymous	Email protection	Standard
filter/anonymous	Display emoticons as images	Standard
filter/anonymous	MultiMedia plugins	Standard
filter/anonymous	MultiLanguage Content	Standard
filter/anonymous	TeX notation	Standard
filter/anonymous	HTML tidy	Standard
filter/anonymous	Convert URLs into links and images	Standard

[Reload](#)
[Upgrade](#)

You are logged in as Admin User (Logout)

Upgrading to new version

block_echo360_configuration

Success

block_echo360_echocenter

Success

[Continue](#)

Add a Trusted System (EchoSystem)

Who can do this?

- System Administrator

Create a trusted system in EchoSystem so the Echo360 Moodle plugin can communicate with your EchoSystem Server (ESS).

Be sure to record the Consumer Key and Consumer Secret. You will need both of these items when you [configure the administration settings in Moodle](#).

- Log in to the ESS as an Administrator.
- Navigate to **System > Trusted Systems**.

Trusted Systems		1 - 1 of 1
System Name ▲	Description	
ecp	EchoCenter	

View: 20 Systems per Page 1 - 1 of 1

[Add](#)

- Click **Add**. The Add Trusted System page appears.

Add Trusted System

Trusted System Information

System Name :

Description :

Consumer Key :

[Save](#) [Cancel](#)

- Complete the required fields:
 - System Name.** We recommend the name of the system being integrated, such as "Blackboard" or "Moodle".
 - Description.** We recommend the URL of the system being integrated.
 - Consumer Key.** We recommend a simple string, such as your initials, for the Consumer Key.
- Click **Save** to commit your edits and reveal your *Consumer Secret*.

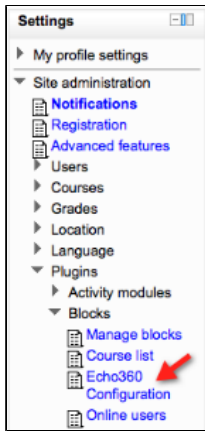
⚠ Record the Consumer Key and Consumer Secret.
 Make a note of the Consumer Key and copy the Consumer Secret value from the Trusted Systems page into a text editor. Make sure you copy the equals signs (==) at the end of the Consumer Secret. **Do not copy the extra character of white space that follows the equals signs (==).**

- Click **Done**.

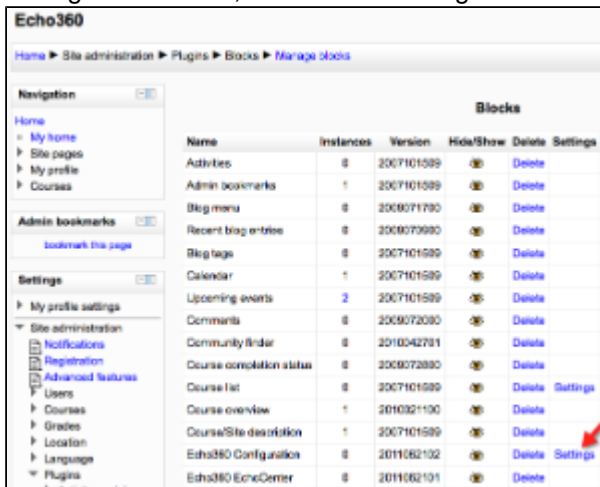
Configure the Administration Settings (Moodle)

The Moodle plugin can be configured from within Moodle.

- Log in to Moodle as an Administrator.
- Navigate to the Echo360 configuration page by doing one of the following:
 - Choose **Echo360 Configuration** from the navigation menu on the left (**Site administration > Plugins > Blocks**), as shown in the figure below.



- Click on the **Settings** link in the **Manage blocks** page in the same table row as the Echo360 Configuration block, as shown in the figure below.



3. Notice that the Echo360 Configuration page appears as shown in the figure below.

Echo360 Configuration

Echo360 EchoSystem Connection Details

Enter the connection details for the EchoSystem Server that this Moodle installation will communicate with. The Trusted System Consumer Key and Trusted System Consumer Secret can be obtained from the EchoSystem Web Administration Interface at "Configuration → Trusted Systems".

EchoSystem URL Default: https://echosystem.your.institution.edu:8443/ if you are using all HTTPS content security, http://<name>:8080 if using HTTP content security.
block_echo360_configuration_echosystem_url

The full URL to your EchoSystem installation including the protocol (http or https) and port number.

Trusted System Consumer Key Default: Empty
block_echo360_configuration_trusted_system_key The key entered for this external system into EchoSystem.

Trusted System Consumer Secret Default: Empty
block_echo360_configuration_trusted_system_secret The key generated by EchoSystem for this external system. The key will consist of a long series of randomised letters, numbers and symbols.


Moodle Course Mapping Details

Select the Moodle Course Field that will be entered in EchoSystem as the Section External ID

Moodle Course Field Default: Course short name
block_echo360_configuration_moodle_external_id_field
 This is the field in Moodle that will be passed to EchoSystem to associate a Moodle course with an EchoSystem section.

4. Configure the plugin.
 - a. **EchoSystem URL.** Enter the content URL to your ESS.
 - i. To find it, log in to the ESS as a System Administrator and navigate to **System > System Settings.**
 - ii. Find the **Public Content Base URL** field. The Public Content Base URL typically looks like this: <https://yourhost:8443/ess>.

- iii. Copy all of the URL **except** for the trailing **ess**.
- iv. Make sure that the EchoSystem URL you enter looks like this: <http://yourhost:8443/>.
- b. **Trusted System Consumer Key**. You entered this value when you [created the trusted system](#). You should have made a note of it. Enter the value.
- c. **Trusted System Consumer Secret**. The EchoSystem generated this value when you [created the trusted system](#). You should have copied it into a text editor. Copy it from the text editor.

 **Best Practice: Do Not Copy the Trailing Space**

Be sure not to copy the trailing space from the text editor into the ESS.

- d. **Moodle Course Field**. This is the Moodle field that is used to map a Moodle course to an EchoSystem section. You can enter any of several Moodle fields: **Course Full Name**, **Course Short Name**, **Course ID Number**. In this example, we use the **Course ID Number**.

Map Moodle Courses to EchoSystem Sections (Moodle and EchoSystem)

Overview

When a student clicks on the EchoCenter block, the block must determine which section in EchoSystem to show to the student. It does this by comparing the value in the field specified in the **Moodle Course Field** with the value in the ESS's **External System Id** field.

Say, for example, you specified **Course ID Number** as the **Moodle Course Field** when [configuring the administration settings](#).

1. Moodle looks for the value in that field. Say that the value is *Course1*.
2. Moodle passes this value to the ESS.
3. The ESS looks at the **External System Id** fields for each section.
4. When it finds a section that has *Course1* in the **External System Id** field, it shows the student the EchoCenter page for that section.

In this phase, you populate the **External System Id** field.

Populate the ESS External System Id Field for a Section

This procedure assumes that you specified **Course ID Number** as the **Moodle Course Field** when you [configured the administration settings](#).

This procedure shows how to populate the External System Id field for a single section. You must populate the **External System Id** field for each section.

 **Best Practice: Use .CSV Import for Sections**

You can quickly populate the **External System Id** field for all sections by importing this field (and, if you wish, many others) from a spreadsheet into ESS. For a general description of the import feature, see [Import and Export Objects](#). For further details, see [Import Sections](#).

1. In Moodle, navigate to the **Edit Course Settings** page for the section (**Home > Courses > EC-Demo > Edit Course Settings**). This example uses EC-Demo as the course.
2. Note the value of the **Course ID Number** field.

3. In ESS, navigate to the Section Details page.
 - a. Navigate to **Schedule > Courses**. The Courses page appears.
 - b. Click the course link. The Course Details page appears.
 - c. Click the section link. The Section Details page appears.
4. Click **Edit**.
5. In the EchoCenter group, enter the **Course ID Number** field value in the **External System Id** field. It is *Cours e1* in the example figure shown below.

6. Click **Save**.

Add the EchoCenter Block to the Course (Moodle)

You can take either of two approaches to this phase:

- [Alter the default layout for a course](#)
- [Train instructors to add the EchoCenter block](#)

Alter the Default Layout for a Course

See the [Moodle documentation](#) for details on altering the default layout for a course.

A simple example would be to add a line to the config.php page for your Moodle installation:

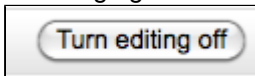

```
$CFG->defaultblocks_topics =
'participants,admin:echo360_echocenter,messa
ges,online_users';
```

This would change the default block layout for topics format courses to People and Administration on the left, and Echo360 EchoCenter, Messages and online users on the right.

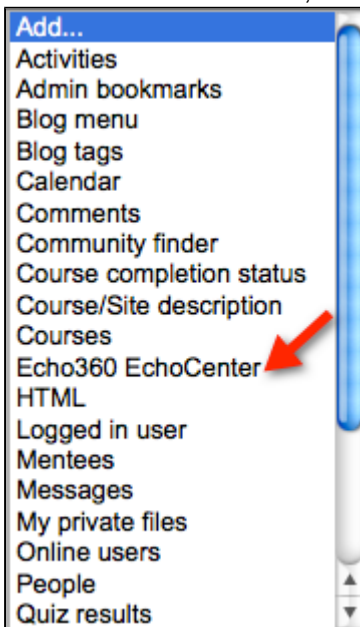
Train Academic Staff to Add the EchoCenter Block

You can train Academic Staff to follow this simple procedure or do the operation yourself.

1. In Moodle, make sure you are in Edit mode. You should see a "Turn editing off" button like that shown in the following figure:



2. In the **Add a block** menu, choose the Echo360 EchoCenter block, as shown in the figure below.



Collaboration Service Only - Review Permissions Assigned to Roles in Moodle

If you do not have [Collaboration Services](#), skip this step.

If you subscribe to the Collaboration and Statistics service, student and Instructors see [different versions](#) of the EchoCenter page. They will continue to see the correct version of the EchoCenter page after you install the plugin without any further configuration on your part. The plugin:

1. Adds two new permissions, **View EchoCenter as EchoSystem Instructor** and **View EchoCenter as Student**
2. Adds these permissions appropriately to the Student, Teacher, Editing Teacher, and Manager (Admin in Moodle 1.9) roles

Users with these Moodle roles see the Instructor version:

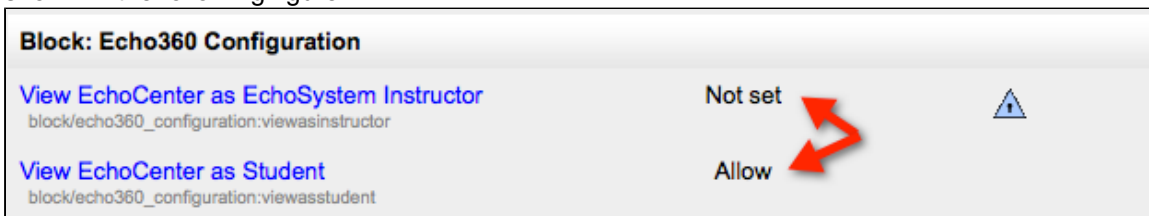
- Editing Teacher
- Manager (Admin in Moodle 1.9)

Users with these Moodle roles see the student version:

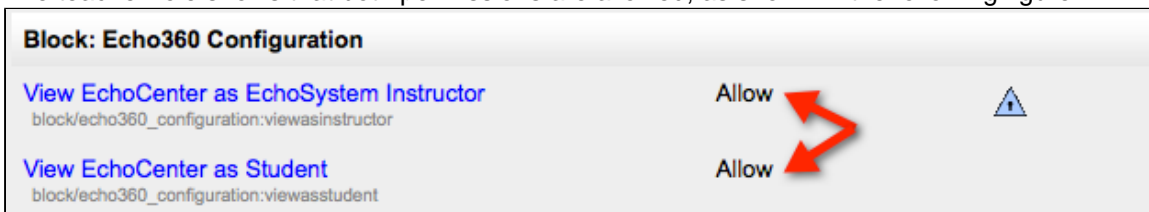
- Student
- Teacher
- Editing Teacher
- Manager (Admin in Moodle 1.9)

You can see the EchoCenter permissions if you edit the roles.

- The student role shows that the Instructor permission is not set but the student capability is allowed, as shown in the following figure:



- The teacher role shows that both permissions are allowed, as shown in the following figure:



You may wish to configure Moodle roles to add or remove these permissions.

Test EchoCenter Publishing for a Section (Moodle and EchoSystem)

1. In Moodle, navigate to a section that has EchoCenter enabled.
2. Look for the EchoCenter link.
3. Click on the link.
4. You should see the EchoCenter page.
5. If you do not, check [Troubleshooting](#) for common errors.

Troubleshooting

Most errors occur when entering data into the Echo360 Configuration page.

- **EchoSystem URL is wrong.** Make sure that the **Echo Base URL** has been copied correctly from the ESS page (**System > System Settings**) to the Moodle plugin. Include the final slash but do not include the **ess**. See [Configure the Administration Settings \(Moodle\)](#).
- **Consumer Secret is wrong.** Make sure you do not copy the trailing space when you paste the Consumer Secret from the text editor to the Moodle plugin. See [Configure the Administration Settings \(Moodle\)](#).
- **Values mismatch.** The value in the **External System Id** in the ESS does not match the value specified in the **Moodle Course Field**. See [Map Moodle Courses to EchoSystem Sections \(Moodle and EchoSystem\)](#).

You may also discuss this plugin on the [Moodle contributed code forum](#).

Moodle - Individual Link Publishing

In this section:

- [Overview](#)
- [Install the Moodle Calendar Patch](#)
- [Configure Moodle](#)
- [Add the Moodle Publisher to the ESS](#)
- [Add Moodle to Each Section](#)
- [Example: San Francisco State University \(SFSU\)](#)

Overview

You can publish to Moodle, the open source learning management system. "Publishing" means that Echoes are available to students via the Moodle calendar.

Enabling Moodle as an EchoSystem publisher consists of these phases:

1. [Install a Moodle calendar patch provided by Echo360](#)
2. [Configure Moodle](#)
3. [Add the Moodle Publisher to the ESS](#)
4. [Add Moodle to each section](#)

These instructions assume that:

- You already have Moodle installed.
- The server running the EchoSystem can contact the server running Moodle.
- You are using Moodle versions 1.8.x through 1.9.x.
- You are using the default Apache and Moodle paths. If your configuration does not use the default paths, adapt the path names appropriately.
- If you are running Windows, you already have GNU installed and can navigate to c:\Program Files\GnuWin32\.

The patch file, named *moodle-1.8.2-1.9.7.patch*, is located in the `Supporting_Components` folder in your ESS installation directory. This patch includes changes allowing publishing on Moodle version 1.9.7. You can install this patch even if you installed another patch earlier. You do not need to uninstall the old patch.

Install the Moodle Calendar Patch

For Linux Operating Systems

These instructions assume that your Moodle installation is located in `/var/www/html/moodle`.

1. Navigate to the **Supporting_Components** folder in your ESS installation directory.
2. Locate the file labeled *moodle-1.8.2-1.9.7.patch*.
3. Copy it to your Moodle server program directory (typically `C:\Program Files\Echo360\Server`).
4. Stop the Apache service.
5. Execute these commands from the terminal prompt.

```
cd /var/www/html/moodle
patch -p1 < echosystem_moodle_patch_1.8.2-1.9.7.patch
```

6. Look for output like that shown in [Output After a Successful Patch Installation](#).
7. Restart the Apache service. The patch has been applied successfully.

For Windows Operating Systems

1. Navigate to the **Supporting_Components** folder in your ESS installation directory.
2. Locate the file labeled *moodle-1.8.2-1.9.7.patch*.
3. Copy it to your Moodle server program directory (typically *C:\Program Files\Echo360\Server*).
4. Stop the IIS service.
5. Execute this command from the command prompt.

```
c:\Program Files\GnuWin32\bin\patch.exe" --binary -p1 <
\[pathToPatchFile\]\echosystem_moodle_patch_1.8.2-1.9.7.patch
```

6. Look for output like that shown in [Output After a Successful Patch Installation](#).
7. Restart the IIS service. The patch has been applied successfully.

Output After a Successful Patch Installation

After you install the *moodle-1.8.2-1.9.7.patch*, you see output like this:

```
(Stripping trailing CRs from patch.)patching
file admin/mnet/adminlib.php
(Stripping trailing CRs from patch.)
patching file calendar/mnet/calendar.php
(Stripping trailing CRs from patch.)
patching file course/mnet/course.php
(Stripping trailing CRs from patch.)
patching file lang/en_utf8/calendar.php
(Stripping trailing CRs from patch.)
patching file lang/en_utf8/calend_mnet.php
(Stripping trailing CRs from patch.)
patching file lang/en_utf8/course_mnet.php
(Stripping trailing CRs from patch.)
patching file mnet/peer.php
(Stripping trailing CRs from patch.)
patching file mnet/remote_client.php
(Stripping trailing CRs from patch.)
patching file mnet/xmlrpc/server.php
```

Configure Moodle

Moodle configuration consists of the following phases:

1. Enable Moodle authentication.
2. Enable network communication.
3. Generate a self-signed certificate.
4. Enable services.

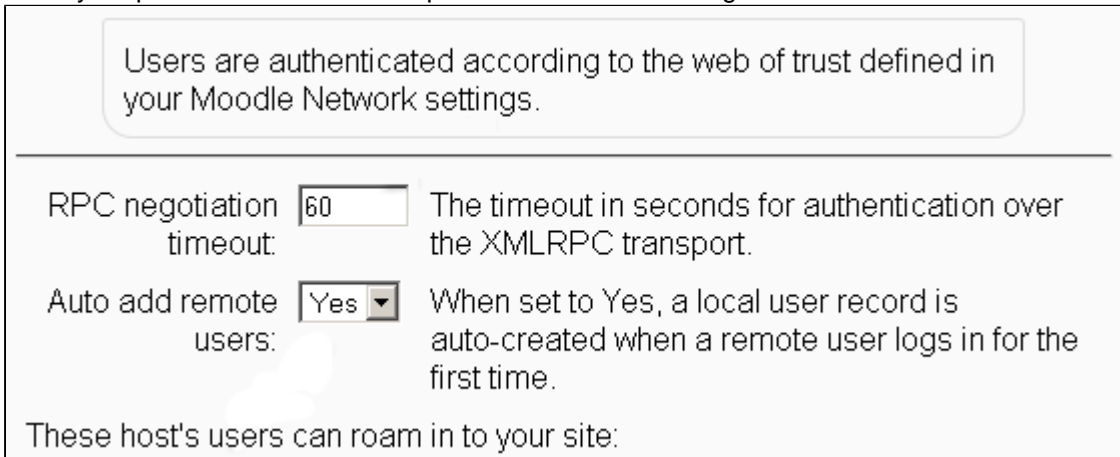
Enable Moodle Authentication

1. Log in to the Moodle web interface.
2. Navigate to **Users > Authentication > Manage Authentication**.
3. Enable Moodle Network Authentication by clicking the eye icon, shown in the below figure.



Enable Network Communication

1. Choose the new Moodle Network Authentication option that appears on the left-hand pane.
2. Set **RPC negotiation timeout** to **60**. **Auto add remote users** is not used by the EchoSystem, so it can be set to your preferred value. These options are shown in the figure below.



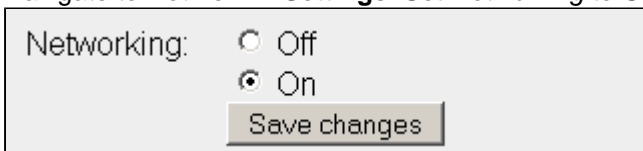
3. Navigate to **Courses > Enrollments** and enable the Moodle Networking option, as shown in the figure below.
4. Click **Save Changes**.



5. Navigate to **Security > Site Policies** and enable the **Allow EMBED and OBJECT tags** option, as shown in the figure below.



6. Navigate to **Network > Settings**. Set **Networking** to **On** and click **Save** as shown in the below figure.



7. Navigate to **Networking > XML-RPC hosts**.

Obviously the last example is **not** a recommended configuration.

10.3.9.71/32

8. Enter the IP address (not the hostname) of the EchoSystem Server (ESS), using CIDR notation at the end of the address (example: - /32), as shown in the above figure. Click **Save**.
9. Use the *Test an address* function at the bottom of the page to verify the ESS IP address is trusted.
10. Navigate to **Networking > Peers**.

Register all hosts (*Hub mode*)

You can choose to register all hosts that try to connect to you automatically. This means that a record will appear in your hosts list for any Moodle site that connects to you and requests your public key. You have the option below to configure services for 'All Hosts' and by enabling some services there, you are able to provide services to any Moodle server indiscriminately.

Register all hosts (*Hub mode*)

Save changes

11. Ensure that **Register all hosts** is *not* selected, as shown in the figure above.
12. In the Add a new host section at the bottom of the page, add the ESS as a Moodle Peer. Enter the URL to the ESS, including the protocol and the port number (example: **https://ess.echostate.edu:8443/**).
13. Click **Add host**. The Review host details page appears. Ignore the error regarding the retrieval of the public key. You will enter the public key soon.
14. Enter `EchoSystem` (or any other name) in the Site field. The Hostname field should be populated with the URL entered on the previous page, as shown in the figure below.

Site:

Hostname:

Public key:
Public key ?

```
-----BEGIN CERTIFICATE-----
MIIDPQCCAg+qAwIBAgIJAINm55H1jRy4MAAGCSqGSIb3DQEBAQUAMGYxChAIBgNV
BAYTAkFVMRMRwEQYDVQQIEwplTb211LVN0YXR1MSEwHwYDVQQKEWhhbnR1cm51dCBX
aWRnaXRzIFB0eSBMGGQxHzAdBgNVBAMTFmh0dHRzOjE5VWTAuMy45LjcxOjg0NDMw
hheNMTAwNTI3MjEzNjU5WhcNMjAwNTI3MjEzNjU5WjBnMQswCQYDVQQGEwJBTET
MBEGA1UECBMjU29tZS1TdGF0eTEhMBRGA1UEChMYSW50eXN0eXJlZS10eXQvV21kZ210cyBQ
dHkgTHRKRMRwEQYDVQQDEwZodHRwczovLzEwLjMuOS43MTo4NDQzMIGfMAAGCSqG
SIb3DQEBAQUAA4GNADCB1QKBgQCuKQV1DXj4CaDABFp96mx1qN891Tn2dWQASy3z
hFDdDrqOw1ncG6X08y3b/aApmuaAEPahFm9uFU7Q0YmpHHTQuFLjUB46As29bV7e
v4T4RB0vbkIG4pp/3cu1eV81rVdn5ap02auVseNx+HEZSaE22BC26bRu0vY1DhS
+6124QIDAQABo4HLMHIMB0GAlUdDgQWBBRKH0EjMOPas6Lxs0tLtrWwVdPWkzCB
nAYDVR0jBIGQMIGngBRKH0EjMOPas6Lxs0tLtrWwVdPWkz6FqgGgw2jELMAkGAlUE
BhMCQVUxExARBgNVBAQTC1NvbWt0eXJhdGUxITAfBgNVBAoTCGE1udGVybnV0eXN0eX
ZGdpdHMgUHR5IEx0Z2EzMB0GAlUExLXWwHR0cHM6Ly8xMjEzLjkuNS43LjkuNS43LjkuNS43
AINm55H1jRy4MAwGA1UdEwQFMAMEAf8wDQYJKoZIhvcNAQEFBQADgYEA59dJIMjN
tNL25WND1tmfawW1hh1ux7EJtJunKAgFxB2aG4E89JRwcC5p/yc61h3q2dyH4P11
za1NOjWx1hRr2Ukah1uzhKRXEJ87Nxsj8zAAawcvTagKhd3LW2u11FMwRHgm54Q7
hbhzIvQfY5QL1CaqY7BGdeDaM0p3y7DKe0=
-----END CERTIFICATE-----
```

Valid until: Sunday, 24 May 2020, 05:36 PM

Last connect time: 17:50:33 27/05/2010

IP address: 10.3.9.71
IP address ?

Generate a Self-Signed Certificate

Moodle requires a self-signed certificate for the ESS host, even though Moodle is not actually contacting the ESS. These steps take place on the ESS itself.

1. Install OpenSSL for your operating system.
 - a. For Linux operating systems:
 - i. Open Terminal and run the following command:

```
openssl req -new -days 3650 -x509 -nodes -keyout /dev/null
```

- b. For Windows operating systems:
 - i. Download and install OpenSSL for Windows. Navigate to this address: <http://www.slproweb.com/products/Win32OpenSSL.html>.
 - ii. Open the command prompt and navigate to `C:\Program Files\OpenSSL-Win32\bin`.
 - iii. Run the following command:

```
openssl req -new -days 3650 -x509 -nodes -keyout NUL
```

2. Enter information regarding the certificate request. Press Enter to accept the default values for all fields except the Common Name (CN). This is the only required field.
3. When prompted for the Common Name, enter the URL to the ESS, including the protocol and the port number (example: **https://ess.echostate.edu:8443/**).

```

Generating a 1024 bit RSA private key
.....+++++
.....+++++
writing new private key to '/dev/null'
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:
State or Province Name (full name) [Some-State]:
Locality Name (eg, city) []:
Organization Name (eg, company) [Internet Widgits Pty Ltd]:
Organizational Unit Name (eg, section) []:
Common Name (eg, YOUR name) []:https://ess.echostate.edu:8443/
Email Address []:
-----BEGIN CERTIFICATE-----
MIIDMTCCApqgAwIBAgIJAIfVSEAOceXyMA0GCSqGSIb3DQEBBQUAMG8xCzAJBgNV
BAYTAKFVMRMwEQYDVQIQIEwpTb21lLVN0YXRlMSEwHwYDVQQKEWhJbnRlcm5ldCBX
aWRnaXRzIFB0eSBMdGQxKDAmBgNVBAMTH2h0dHBz0i8vZXNzLmVjaG9zdGF0ZS5l
ZHU6ODQ0My8wHhcNMjAwNjAzMDU1WhcNMjAwNjAzMDU1WjBvMQswCQYD
VQQGEwJBVTETMBEGA1UECBMKU29tZS1TdGF0ZTEhMB8GA1UEChMYSW50ZXJuZXQg
V2lkZ2l0cyBQdHkgTHRkMSGwJgYDVQQDEEx9odHRwczovL2Vzcy5lY2hvc3RhZGUu
ZWR10jg0NDMvMIGfMA0GCSqGSIb3DQEBBQUAA4GNADCBiQKBgQCeB0UGiPsT1CaU
wD2fsw50DM+XlnQiz1pekloD6iHArAAe4dRyj928y4FpEF6ThXS7CiQqFJKHmv9y
QJZCBf4wahFEtGNue50fdtm3QRmvsrFLFNclVvzQmR0y6qxbvhFRN0M37SG+1Sqi
VScULg/aSQ/XbbYW6fF/uXy2Etjb0wIDAQAB04HUMIHRMB0GA1UdDgQWBBTiRzm7
JgDLXf+4jwkb0uCP74veXDCBoQYDVR0jBIGZMIGWgBTiRzm7JgDLXf+4jwkb0uCP
74veXKFzPhEwbzELMAkGA1UEBhMCQVUxEzARBgNVBAgTClNvbWUtU3RhdGUxITAf
BgNVBAoTGE1udGVybmlvIFdpZGdpdHMgUHR5IEEx0ZDEoMjYGA1UEAxMfaHR0cHM6
Ly9lc3MuZW50YXRlLmVkdTo4NDQzL4IjAIfVSEAOceXyMAwGA1UdEwQFMAMB
Af8wDQYJKoZIhvcNAQEFBQADgYEAJXQVxXbjKdC7JJzPz77uZ/cPoipI0r3NE0uz
/A5kCspkYRRuV1lp4s+Qus3ZxDYz83LjrBIy/9LnimYkht6/VNKqjgCGR1kUk3GN
k7+pw9haQG6Q1Z4XVJRjQgAp/P3AabXDDWmL2FoCmN79VjPj2jjZipM4+Dcp4k9d
abNKIb4=
-----END CERTIFICATE-----

```

4. After all information has been entered, a new self-signed certificate is generated. Copy and paste the entire certificate into the **Public Key** field.
5. Click **Save changes**.

Enable Services

1. Notice that the ESS has returned you to the Review Host Details screen. Click the **Services** tab.
2. Select the **Publish** and **Subscribe** check boxes for both the **Calendar Service** and the **Course Service**, as shown in the figure below.

Calendar Service

Publish this service to allow other systems to create events in your calendars.
Subscribe to this service to allow other systems to read events in your calendars.


- Publish
- Subscribe

Course Service

Publish this service to allow other systems to publish course information to your server.
Subscribe to this service to allow other systems to read course information from your server.

- Publish
- Subscribe

3. Click **Save changes**.

 You may need to log out and back into the Moodle web interface before these options appear.

Add the Moodle Publisher to the ESS

1. Navigate from the Moodle web interface to the ESS.
2. Select **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears, as shown in the figure below.

Add Publisher

Publisher Details

Name :

Description :

Organization : Echo360 ▾

Publisher Type : Choose... ▾

Use by Default :

Save
Cancel

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **Moodle Learning System**. The page expands to include a section on Publisher Configuration that is specific to Moodle.

Add Publisher

Publisher Details

Name :

Description :

Organization :

Publisher Type :

Use by Default :

Publisher Configuration

Application URL :

Post Podcast :

Post Vodcast :

Post EchoPlayer :

7. If you want Moodle to be your default publisher, select the **Use by Default** box.
8. In the Application URL field, enter the URL of the Moodle Learning System server (example: <https://ess.echo.state.edu/moodle>).
9. By default you will post Podcast, Vodcast, and EchoPlayer versions of your Echo to Moodle. **Post EchoPlayer** means that you will post a rich media version viewable in the EchoPlayer (student player). Change these if necessary by clearing the check boxes.
10. Click **Test Settings** to verify that a connection can be established. If it cannot be established, you receive a detailed error message.
11. Click **Save**.

Add Moodle to Each Section

After you enable Moodle as a publisher, specify it as the publisher for each section. This ensures that Echoes for each section publish to Moodle.

1. In Moodle, find the course's Short name, as shown in the figure below.

Echo360 Demonstration Course

Echo360 ▶ Echo-101 ▶ Edit course settings

Edit course settings

General

Category

Full name*

Short name* Note the Short name

Course ID number

Summary

2. In the ESS, navigate to the Section Details page for the section.
3. Scroll to the bottom of the page.

4. Click **Add Publisher** as shown in the figure below.

5. On the Add Publisher page:
- Select the publisher from the list.
 - In the Course ID field, enter the Moodle Short name.
 - Click **Save**.

Example: San Francisco State University (SFSU)

SFSU created a custom publisher for Moodle using Echo360's Open Publisher SDK.

- The custom publisher is described on LectureCapture.com
- The plug-in is available on SourceForge

LTI-Based Publishing

In this section:

- [Overview](#)
- [High-Level Procedure](#)
- [Add LTI Profile to the ESS](#)
- [Seamless Only vs Authentication Required](#)
- [Add the ESS to the LMS as an External Tool](#)
- [Configure ESS Sections to Publish to LMS Courses](#)

Overview

EchoSystem LTI (Learning Tool Interoperability) allows you to integrate the EchoSystem with a learning management system (LMS) such as Canvas, Moodle, or Blackboard. Basic LTI communication consists of a content provider (EchoSystem) and a content consumer (the LMS).

The list below shows LMSs supported by LTI-Based publishing. These integrations require EchoSystem 5.2 with Service Pack 2 or higher:

- Blackboard, version 9.1 Service Pack 9 or higher
- Moodle, version 2.2 or higher
- Canvas
- Desire2Learn (D2L), version 9.4 or higher
- Sakai, version 2.9.1 or higher

If you are currently publishing to Moodle or Blackboard, we recommend that you change your ESS configuration to use LTI instead of the traditional publishing methods. LTI offers these advantages:

- LTI-Based publishing **supports EchoCenter publishing**, which is recommended instead of individual link publishing.
- LTI is a **published standard**. The information passed between the systems is secured and authorized, and can ultimately provide for viewing analytics through the ESS.
- LTI-Based publishing is **dynamic**, but traditional publishing is static. Static publishing means that if you change security settings or if you configure a publisher incorrectly, you must repost links to the learning management system (LMS). In dynamic publishing, by contrast, any changes made to the courses or sections are passed through automatically.
- LTI configuration on the ESS is **simple**. It requires only an LTI profile and an association between the ESS section and the LMS course via the Course IDs.

Canvas LTI Profile Requires Additional Fields

If you are using Canvas as your LMS, see [Canvas LTI](#) for instructions. Configuring the Canvas LTI profile requires additional steps not provided below.

High-Level Procedure

In order to pass information to the LMS, the EchoSystem Server (ESS) and the LMS must be configured to communicate securely with each other. Configuring LTI integration with an LMS consists of the following phases:

1. [Add the LTI into the ESS configuration.](#)
2. [Add the ESS as an External Tool in the LMS.](#)
3. Identify or create courses in the LMS.
4. [Add the Course IDs from the LMS into the section configuration on the ESS](#) (External Course IDs).

Once configured, users can log into the LMS and seamlessly access each of their sections.

Best Practice: Use a Text Editor

Configuring the LTI connection between the ESS and an LMS involves copying several items from the ESS to the LMS. These items must be **exactly the same** in both systems. To reduce errors, we recommend using copy/paste to transfer the information:

1. Open Notepad or another editor.
2. Copy the item from the ESS interface.
3. Paste the item to the LMS.

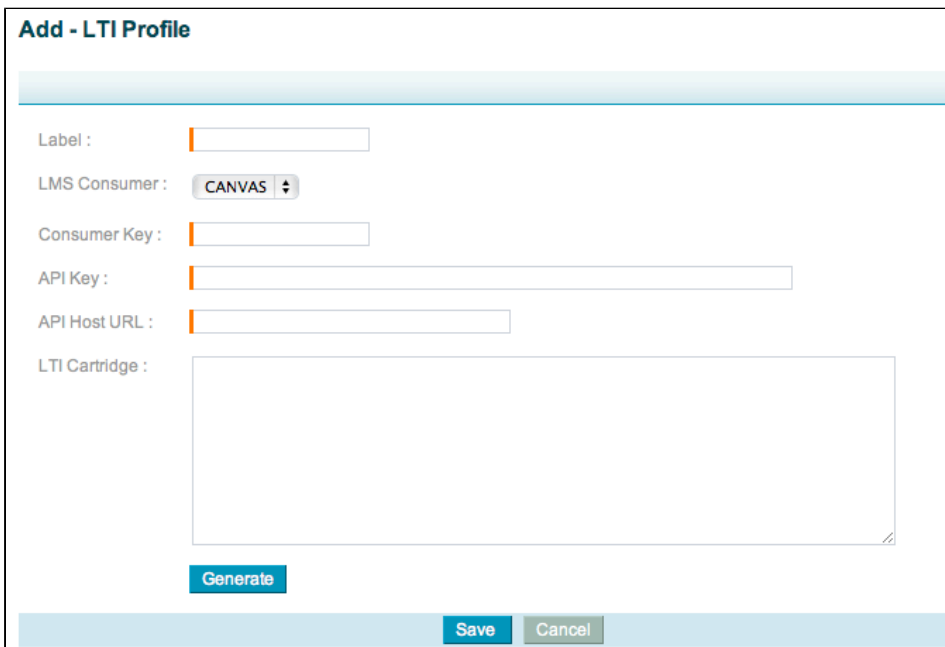
Add LTI Profile to the ESS

Configure HTTP/HTTPS System Settings First

Be sure you have configured your [System Settings](#) *before* adding the LTI profile to the ESS. In particular, the [Application Network Settings](#) must remain static. If you change the HTTP/HTTPS configuration in the Application Network Settings after creating the LTI profile, you will have to delete and re-create the External Tool on the LMS. This is because changing the HTTP/HTTPS settings also changes the ESS launch URL for the LTI tool.

Follow these steps to add the LTI profile to the ESS. Once the LTI profile exists, you will use the fields generated to [Add the ESS to the LMS as an External Tool](#).

1. On the ESS, navigate to **Configuration > LTI**
2. Click **Add** to open the Add LTI form, shown in the below figure.



Add - LTI Profile

Label :

LMS Consumer : CANVAS

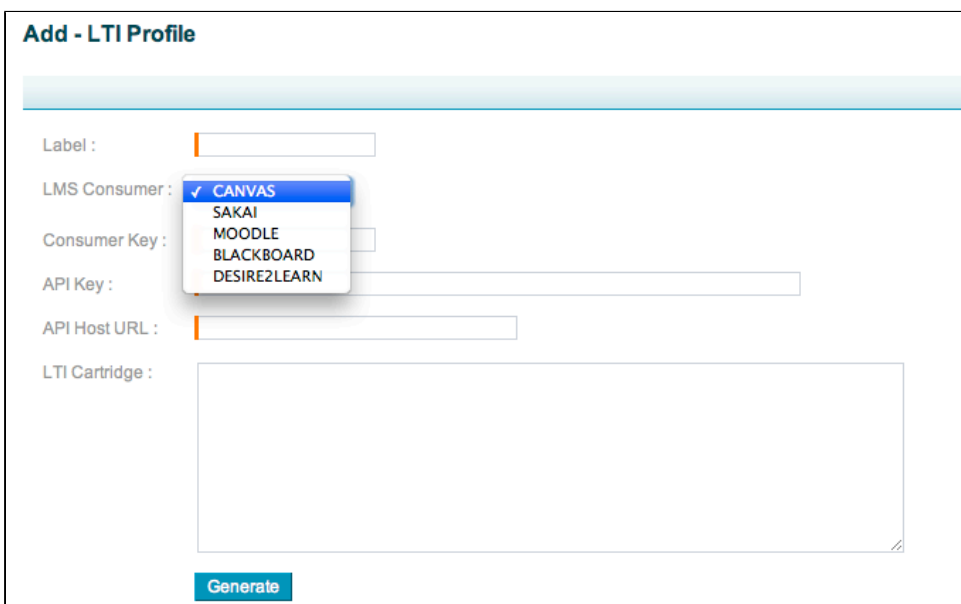
Consumer Key :

API Key :

API Host URL :

LTI Cartridge :

3. From the **LMS Consumer** drop-down list, shown below, select the LMS you are using.



Add - LTI Profile

Label :

LMS Consumer : ✓ CANVAS

Consumer Key :

API Key :

API Host URL :

LTI Cartridge :

4. Notice that when you select an LMS other than Canvas, the Add Profile page changes, removing several of the fields, as shown in the figure below. See [Canvas LTI](#) for instructions on configuring a Canvas LTI profile.

The following table lists the Add LTI Profile fields and describes the information to be entered in each:

LTI Profile Field	Description and Value to be Entered
Label	Enter a name for this LTI profile. This identifies this LTI configuration in the ESS interface.
LMS Consumer	Select the LMS you are using from the drop-down list. If you are using Canvas, see Canvas LTI for configuration instructions.
Consumer Key	Enter a term or short phrase with no spaces that identifies this LTI and is easy to remember. You will enter this Consumer Key into the LMS interface when you Add the ESS to the LMS as an External Tool . This must be different for each LTI profile you create (if you create more than one).

5. Complete the fields using the information provided in the above table. The following figure shows a completed Add Profile page.

6. Click **Save**. The completed LTI profile appears, shown in the below figure, including the **Consumer Key**, **Shared Secret**, and **Launch URL** fields, which you will use to configure the LTI Tool on the LMS.

LTI Profile – Desire2Learn

The item has been added.

Label :	Desire2Learn
LMS Consumer :	DESIRE2LEARN
Consumer Key :	D2L-E360-LTI
Shared Secret :	Hol/zFUG3vewRR5zi8MYyWwWy4Klz4Df8jjetGtZDr1H7vjBpxOpKAuVdCzRfaK3IHH7ZDieAo2Lqa6G5mXcuQ==
Launch URL :	https://ess8-white.qa.echo360.com:8443/ess/lti/v1/launch/DESIRE2LEARN/eb23745d-abf0-4854-99b6-b46925f90e2a

7. From the completed LTI profile, copy the following items into Notepad or other text editor, for later pasting into the proper fields when creating the ESS as an External Tool in the LMS.
- Consumer Key
 - Shared Secret
 - Launch URL

i Canvas LTI Profile Shows Additional Fields

The above list applies to all LTI profiles except Canvas. As stated above, creating the Canvas LTI profile requires additional steps not provided here. The Canvas LTI profile also shows additional fields not discussed here. Refer to [Canvas LTI](#) for details.

8. When you have copied the appropriate information, click **Done**. The LTI screen appears, showing the new LTI profile along with any others already created.

LTI 1 - 5 of 5

Profile Name ▲	LMS Consumer
Blackboard	BLACKBOARD
d2l	DESIRE2LEARN
echo	BLACKBOARD
Moodle	MOODLE

View: 20 Profiles per page 1 - 5 of 5

When necessary, you can access LTI profile information by clicking the **Profile Name** in the LTI screen shown above.

Seamless Only vs Authentication Required

If **Seamless Only** is used on a section, then students must be authorized via an LTI or Seamless link for the specific section in the LMS in order to view content for that section.

If **Authentication Required** is used on a section, then any authenticated student can access the content for that section.

Add the ESS to the LMS as an External Tool

The ESS must be configured as an External Tool for the LMS. Basic LTI communication is configured by copying the LTI profile fields from the ESS to the LMS.

While the API interaction between the systems is effectively the same, configuration instructions differ, depending on the LMS you are using. Detailed instructions are available in the following pages:

- [Blackboard LTI](#)
- [Moodle LTI](#)
- [Sakai LTI](#)
- [Desire2Learn LTI](#)
- [Canvas LTI](#)

After the external tool is configured on the LMS, use the information below to configure sections on the ESS to deliver the appropriate content to each LMS user.

Configure ESS Sections to Publish to LMS Courses

In order for the ESS to know what content belongs to the logged-in LMS user, each ESS section needs to be associated with the corresponding LMS course. The External System ID field in the section page, shown in the below figure, provides this association. For more information on creating and configuring sections, see [Manage Sections](#).

The screenshot shows the EchoCenter configuration interface. A red arrow points to the 'External System Id' input field, which contains the text 'WldHst-2993'. Other visible fields include 'Disable at end of Term?' (checkbox), 'Show podcast link?' (checkbox), 'Show EchoPlayer link?' (checkbox checked), 'Show vodcast link?' (checkbox), and 'EchoCenter Logo Image' (dropdown menu showing 'None Available').

Populate this field with the ID number for the corresponding Course or Section ID in the LMS. The table below describes where, in each LMS, the ID can be found.

If you are using this LMS...	The Course number to enter into the External ID field is found here:
Blackboard	Navigate to the Course page then select Customization > Properties. Use the Course ID found on the Properties page.
Moodle	Navigate to the Course page, then select Edit Settings . Select the value in the Course Short Name field the Edit course settings page.
Sakai	Navigate to My Workspace > Realms and use the Provider IDs for the courses listed. Where there are multiple sections for a course, you will see multiple Provider IDs separated by a + (plus sign).

Desire2Learn (D2L)	<p>Navigate to the Course page in D2L and use the Course ID number located in the URL. In the sample URL below, the External System ID to use would be 2040773.</p> <p><code>https://riverland.ims.mnscu.edu/d2l/home/2040773</code></p>
Canvas	<p>In the URL of the Section page in Canvas. Navigate to the Course page and click on the section link. In the sample URL below, the External System ID for the section would be 1107705.</p> <p><code>https://<institution name>.instructure.com/courses/832164/sections/1107705</code></p>

When a student logs into the LMS and navigates to each course, a link for the EchoCenter for the appropriate section is automatically shown through the course page of the LMS interface.

Blackboard LTI

- [Add the ESS as an LTI Tool in Blackboard](#)
- [Adding the LTI Link to a Course](#)

Blackboard and EchoSystem Versions Required for LTI-Based Publishing

You can use LTI-Based publishing if you have:

- Blackboard, version 9.1, Service Pack 9 or higher, and
- EchoSystem 5.2 with Service Pack 2 or higher

Add the ESS as an LTI Tool in Blackboard

After you have created the Blackboard LTI profile on the EchoSystem Server (ESS) you must add the ESS as an LTI tool in Blackboard. This allows Blackboard to securely communicate with the ESS.

The instructions below are provided as a guide for entering and enabling the proper settings in Blackboard using Register Provider Domain. These steps must be performed by the LMS Administrator. Be sure you have [created the Blackboard LTI Profile on the ESS](#) so you can copy the appropriate fields from that profile into the Blackboard LTI tool configuration.

If you need further instructions or more detail on using Blackboard, refer to the Blackboard documentation.

1. On the Administrator Panel, under Building Blocks, click **Building Blocks**.
2. Click **LTI Tool Providers**.
3. Click **Register Provider Domain**.
4. Type the **Provider Domain**. This must be the fully qualified domain name of the ESS, such as `ess.institution.edu`.
5. Select the **Provider Domain Status** - Approved or Excluded. Approved is the default setting. Selecting Excluded prevents users from adding tool links to this provider.

6. Select **Set Globally** and enter the following information from the LTI Tool configuration on the ESS:
 - **Tool Provider Key** - Copy the Consumer Key from the ESS.
 - **Tool Provider Secret** - Copy the Shared Secret from the ESS.
7. Skip the Custom Parameters section. The ESS requires no custom parameters.
8. The **Institution Policies** section pulls preferences from the Global Properties and manages settings for the ESS LTI tool. Note that the choices you make for the individual provider here will override the Global Properties. Set the following policies:
 - **Send User Data** - Send user data only over any connection.
 - **User Fields to Send** - Role in Course, Name, Email Address
 - **Send Context Identifiers As** - Batch UID
 - **Show User Acknowledgement Message** - Optional. Select whether a user acknowledgment message appears when the user clicks a learning tool link, such as a notification that the user is leaving Blackboard Learn for an external site. **Yes** turns the message on, and **No** turns it off. If you select Yes, be sure to add Message Text.
9. Click **Submit**.

Adding the LTI Link to a Course

In order for students to access the EchoCenter for a course, a link to the EchoSystem LTI tool must be added to each course.

There are two approaches you can take:

- [Add an LTI tool link to a menu](#), allowing instructors to add them to courses (called "managing placements");
- [Create a web link for the tool provider](#).

Both methods are outlined below. If you need further instructions, please see your Blackboard documentation.



The Instructor Must Be Properly Configured in the ESS to See the Instructor View

For instructors to be able to see the Instructor View of an EchoCenter page through the LMS, the following must be true for that user on the ESS:

- The Instructor must be configured as an Academic Staff user in the ESS.
- The Instructor must be configured as an Instructor on the section.
- The Instructor's user name and email address in the LMS **must match** the user name and email address in the ESS. For example an Instructor with the user name "instructor1" with the email address "instructor1@echo.com" in the ESS must also be "instructor1" in the LMS with the email address "instructor1@echo.com".
- The email address does not have to be valid (it can be a dummy address) but it does have to be unique to the user.

An Instructor not configured in this way sees the Student View of the EchoCenter.

After adding the LTI link to courses, the final step will be to add the [LMS ID for each course into the corresponding section page on the ESS](#) - documented at the bottom of this page.

Manage Placement for ESS LTI Tool Link

The newly created LTI provider appears on the LTI providers list. From here, you can manage the placement of the tool in Blackboard. Creating a name and placing the tool in a menu is not required, but doing so makes it easy for instructors (or students) to find and use, because the instructors adding the LTI tool to their courses do not have to know the tool URL or secret key.

If a tool provider has no placements, instructors can still use it in courses as described in [Create a Web Link for ESS LTI Tool](#).

To **Manage Placement** for an LTI tool link:

1. From the LTI Tool Providers page, right-click the ESS LTI tool you created above, and click **Manage Placements**.
2. Click **Create Placement**.
3. In the Create Placement form that appears, enter the following:
 - **Label:** This is the name for the LTI tool that appears in the menu.
 - **Description:** Descriptions appear only to students in their tools menu, not for instructors. This is used only if the link type will be Student Tool, and provides a description to help students understand what the tool is and what it does.
 - **Handle:** Identifies the tool in the database, and must be unique.
4. For Type, select **Student Tool** or **Content Type**. These are described as follows:
 - A **Student Tool** appears in the student Tools menu. The Description provided above helps them understand what the tool is and what it does.
 - A **Content Type** link requires you to select which content type to add, which determines what menu tool appears in for the course. The **Placement allows grading** option allows you to add the grading features such as due date and points possible to the tool.
5. Add an icon for the tool by clicking **Browse** and uploading an image file 50 x 50 pixels. For your convenience, we have attached an appropriately sized [Echo icon](#) to this page. Click the link then select **Save As** or **Save Page As** from your browser's File menu to save the link for use. It should save as a *.png (portable network graphic) file.
6. Type in the tool provider information. In most cases, this is the same information you added when you created the tool, including Provider Secret and Provider Key, unless you are creating multiple placements for the same registered provider.
7. Click **Submit**.

Create a Web Link for ESS LTI Tool

After the LTI tool has been added to the Blackboard system, a course administrator or instructor can add a link to the EchoCenter LTI tool within the course. This LTI tool provides seamless authentication from Blackboard to the EchoSystem. Use the steps below to create a new web link in your course.

To **Create a Web Link** for the LTI Tool:

1. Change Edit Mode to **ON**.
2. Access a content area, learning module, lesson plan, or folder for the link you are creating.
3. On the action bar, point to **Build Content** to open the drop-down list.
4. Select **Web Link**.
5. On the Create Web Link page, type a **Name**.
6. Enable the **This link is to a Tool Provider** checkbox.
7. If your school has already [set up the Tool Provider](#) (procedure above), type the web address for the Tool Provider in the URL box.
8. There are no **Custom Parameters** required for the ESS LTI tool. You can skip these fields.
9. To enable grading, select **Yes**. This is optional.
10. Click **Submit**.

Adding Blackboard Course IDs to ESS Sections

In order for the ESS to know what content to serve to the LMS, each section in ESS needs to be associated with the LMS course to which it belongs. The External System ID field in the ESS section configuration page, shown in the below figure, provides this association.

Populate this field with the Course ID number for the corresponding course in Blackboard. The Course ID can be found on the Properties page for each course. In addition, you can export course IDs from Blackboard and use them to [create ESS sections via import](#).

This process can be done by the administrator for all courses and sections, or by the Instructor for specific sections.

For more information on creating and configuring sections in the ESS, see [Manage Terms, Courses, and Sections](#).

When a student clicks on the content link in Blackboard, the EchoCenter for the appropriate section is automatically shown through the course page of the Blackboard interface.

Canvas LTI

In this section:

- [Overview](#)
- [Generate Canvas Access Token for ESS API Key](#)
- [Add Canvas LTI to the ESS](#)
- [Add the ESS to Canvas as an External Tool](#)
- [Configure Sections to Publish to Canvas Courses](#)

Overview

You can integrate the EchoSystem with Canvas, the cloud-based open source learning management system (LMS) by taking advantage of the LTI (Learning Tool Interoperability) in Canvas.

You can use LTI-Based publishing if you have EchoSystem 5.2 with Service Pack 2 or higher.

Basic LTI communication consists of a content provider (which in this case is EchoSystem) and a content consumer (which in this case is Canvas).

In order for the EchoSystem Server (ESS) to pass information to Canvas, both systems must be configured to communicate securely with each other. In addition, each section in the ESS needs to be configured so that the ESS knows what information to pass through to Canvas for each user.

Configuring the ESS and Canvas consists of the following phases:

- [Generate an Access Token from Canvas](#) to authenticate the ESS for passing content to the Canvas API
- [Add the Canvas LTI](#) into the ESS configuration
- [Add the ESS as an External Tool](#) to the Canvas configuration
- Identify or create the courses in Canvas
- [Create and configure Sections in the ESS](#) that correspond with the Canvas courses

Once configuration is complete, users are able to log into Canvas and seamlessly access each of their sections, viewing the appropriate EchoCenter page and its associated content and course materials.

✓ **Best Practice: Use a Text Editor**

Configuring the LTI connection between the ESS and an LMS involves copying several items from the ESS to the LMS. These items must be **exactly the same** in both systems. To reduce errors, we recommend using copy/paste to transfer the information:

1. Open Notepad or another editor.
2. Copy the item from the ESS interface.
3. Paste the item to the LMS.

Generate Canvas Access Token for ESS API Key

Before you can configure the ESS to integrate with Canvas, you first need to generate an Access Token within Canvas. This token is used to access enrollment information through the Canvas API.

Upon generation of the Access Token, you must copy the token and either paste it directly into the Canvas LTI Profile in ESS, or paste it to an interim holding location, such as Notepad or other text editor. The Access Token *must be copied into the ESS exactly as it appears in Canvas*, with no leading spaces or other characters.

i **Use an Administrative Account to Generate the Access Token**

Access tokens can be generated by any account in Canvas, however since the Access Token is used to access enrollment information, you want to be logged in using an account that can access all enrollment information for the courses that will be used with EchoSystem. You can use a Canvas Administrator account or create a user account specifically for this integration. If you do create a separate account, be sure the user has access to *all* of the appropriate course enrollment information.

Please note that the steps listed here are provided as a guide and are to be performed by the Canvas Administrator. If you need more detailed information, please refer to the Canvas documentation.

1. Log into Canvas as an Administrator or using an account specifically designed for this integration. See note above.
2. Navigate to **Settings**.
3. At the bottom of the Settings page, click **New Access Token**.
4. Enter a **Purpose** for the token. This provides the reason or use for the token in the interface.
5. Enter an **Expiration Date** for the token, or leave the field blank if you do not want the token to expire.
6. Click **Generate Token**.
7. In the Access Token Details dialog box that appears, **select and copy** all of the characters in the **Token** field. This token must be entered *exactly as it appears* into the API Key field of the Canvas LTI Profile in ESS. The token shown will NOT be shown again. If you do not copy it now, you will have to regenerate an access token to use for API authentication.
8. **Paste the copied token** either directly into the Canvas LTI Profile using the [instructions in the next section](#), or paste the token to Notepad or other text editor for later access.

- When finished, close the dialog box using the "x" in the top right corner.

If, for some reason, you lose the generated token or do not copy it correctly, you will have to regenerate the token and use the new one in the Canvas LTI profile in ESS.

Add Canvas LTI to the ESS

⚠ Configure HTTP/HTTPS System Settings First

Be sure you have configured your [System Settings](#) prior to adding the Canvas LTI to the ESS. In particular, the [Application Network Settings](#) must remain static. If you change the HTTP/HTTPS configuration in the Application Network Settings after creating the Canvas LTI profile, you will have to delete and re-create the LTI tool within Canvas. This is because changing the HTTP/HTTPS settings also changes the ESS launch URL for the LTI tool.

Use the following steps to add the Canvas LTI to the ESS configuration. Once the Canvas LTI is added to ESS, you will use the fields generated for the LTI profile to [Add the ESS to Canvas as an External Tool](#).

- On the ESS, go to **Configuration > LTI**
- Click **Add** to open the Add LTI form, shown in the below figure.

The screenshot shows a web form titled "Add - LTI Profile". It contains the following fields and controls:

- Label :** A text input field.
- LMS Consumer :** A dropdown menu with "CANVAS" selected.
- Consumer Key :** A text input field.
- API Key :** A long text input field.
- API Host URL :** A text input field.
- LTI Cartridge :** A large text area for notes or additional information.
- Buttons:** "Generate" (blue), "Save" (blue), and "Cancel" (grey).

The following table lists the fields in the Add LTI Profile form and describes the information to be entered in each:

LTI Profile Field	Description and Value to be Entered
Label	Enter a name for this LTI profile. This identifies this LTI configuration in the ESS interface.
LMS Consumer	Select Canvas as the LMS Consumer from the drop-down list.

Consumer Key	Enter a term or short phrase with no spaces that identifies this LTI and is easy to remember. This Consumer Key will also be entered into the Canvas interface when you Add the ESS to Canvas as an External Tool .
API Key	Enter the Access Token generated in Canvas from the instructions above.
API Host URL	Enter the base URL of the Canvas server. For example, <code>https://<institution name>.instructure.com</code>
LTI Cartridge	This field is populated by clicking the Generate button. The resulting XML script provides the instructions necessary for the ESS and Canvas to process the information and content being passed between the systems. The XML script can also be used when you Add the ESS to Canvas as an External Tool .

- Complete the fields using the information provided in the above table.
- Click **Generate** to populate the LTI Cartridge field with the appropriate XML script. When you are finished, the Add LTI Profile form should appear similar to the following figure.

Add - LTI Profile

Label :

LMS Consumer :

Consumer Key :

API Key :

API Host URL :

LTI Cartridge :

```
<?xml version="1.0" encoding="UTF-8"?>
<cartridge_basicti_link xmlns="http://www.imsglobal.org/xsd/imslticc_v1p0"
  xmlns:blti = "http://www.imsglobal.org/xsd/imsbasicti_v1p0"
  xmlns:lticm = "http://www.imsglobal.org/xsd/imslticm_v1p0"
  xmlns:lticp = "http://www.imsglobal.org/xsd/imslticp_v1p0"
  xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation = "http://www.imsglobal.org/xsd/imslticc_v1p0
http://www.imsglobal.org/xsd/lti/ltiv1p0/imslticc_v1p0.xsd
http://www.imsglobal.org/xsd/imsbasicti_v1p0
http://www.imsglobal.org/xsd/lti/ltiv1p0/imsbasicti_v1p0.xsd" />
```

- When finished, click **Save**. The completed Canvas LTI Profile appears, and includes **Shared Secret** and **Configuration URL** fields, in addition to the **Consumer Key** you entered, all highlighted in the below figure.

LTI Profile – Canvas LTI

The item has been added.

Label: Canvas LTI

LMS Consumer: CANVAS

Consumer Key: Canvas-E360-LTI

Shared Secret: K0j+Txzppp0VAPaO/QkOeoaQZrusEijoeppGIFTENhHoQMUIBGkxgUdz49OHk5BI0p4dWkOYI7Kq9DINyA==

Configuration URL: https://ess8-white.qa.echo360.com:8443/ess/lti/v1/configuration/87218049-d722-44e5-821b-2943b5770c25

Launch URL: https://ess8-white.qa.echo360.com:8443/ess/lti/v1/launch/CANVAS/87218049-d722-44e5-821b-2943b5770c25

API Key: 1-7pribkw2khQcZHQS8hURNMFkWFdXCs7movapCSE4FoOD3bbJorJds2nTINGah4g

API Host URL: https://echo360.instructure.com

LTI Cartridge:

```
<?xml version="1.0" encoding="UTF-8"?>
<cartridge_basictli_link xmlns="http://www.imsglobal.org/xsd/imsaltic_vlp0"
xmlns:blti="http://www.imsglobal.org/xsd/imsbasictli_vlp0"
xmlns:lticm="http://www.imsglobal.org/xsd/imsaltic_vlp0"
xmlns:ltiop="http://www.imsglobal.org/xsd/imsaltic_vlp0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.imsglobal.org/xsd/imsaltic_vlp0 http://www.imsglobal.org/xsd/lti/ltivlp0/imsaltic_vlp0.xsd
http://www.imsglobal.org/xsd/imsbasictli_vlp0 http://www.imsglobal.org/xsd/lti/ltivlp0/imsbasictli_vlp0.xsd
http://www.imsglobal.org/xsd/imsaltic_vlp0 http://www.imsglobal.org/xsd/lti/ltivlp0/imsaltic_vlp0.xsd
http://www.imsglobal.org/xsd/imsaltic_vlp0 http://www.imsglobal.org/xsd/lti/ltivlp0/imsaltic_vlp0.xsd">
<blti:title>EchoCenter</blti:title>
<blti:description>EchoCenter provides all the lecture captures for this course.</blti:description>
<blti:launch_url>https://ess8-white.qa.echo360.com:8443/ess/lti/v1/launch/CANVAS/87218049-d722-44e5-821b-2943b5770c25</blti:launch_url>
<blti:extensions platform="canvas.instructure.com">
<lticm:property name="privacy_level">public</lticm:property>
<lticm:options name="course_navigation">
<lticm:property name="enabled">true</lticm:property>
<lticm:property name="text">EchoCenter</lticm:property>
<lticm:property name="default">enabled</lticm:property>
<lticm:property name="visibility">members</lticm:property>
<lticm:property name="url">https://ess8-white.qa.echo360.com:8443/ess/lti/v1/launch/CANVAS/87218049-d722-44e5-821b-2943b5770c25</lticm:property>
</lticm:options></blti:extensions></cartridge_basictli_link>
```

Add New Edit Done

- From the LTI Profile screen, copy the necessary fields for use in [creating the ESS as an External Tool in Canvas](#). You can copy each of these directly from the ESS into Canvas, or you can use an interim holding location, such as Notepad or other text editor, to paste each item for later use. The fields you need are:
 - Consumer Key
 - Shared Secret
 - Configuration URL **or** LTI Cartridge

i LTI Cartridge only needed for Paste XML Configuration Type

The LTI Cartridge is only necessary if you are using Paste XML as the Configuration Type for the External Tool in Canvas. If you are using URL as the Configuration Type, use the Configuration URL provided in the profile details shown above. There is no difference, from the ESS standpoint, which Configuration Type you choose.

- When you have copied the appropriate information, click **Done**. The LTI Configuration screen appears, showing the new LTI along with any others that may have already been created.

Profile Name	LMS Consumer
Blackboard	BLACKBOARD
Canvas LTI	CANVAS
d2l	DESIRE2LEARN
echo	BLACKBOARD
Moodle	MOODLE

View: 20 Profiles per page

Add

As indicated in the instructions, use the fields from the completed LTI Profile to [configure the ESS as an External Tool in Canvas](#). You can access this information any time by clicking on the **Profile Name** in the LTI screen shown above.

Add the ESS to Canvas as an External Tool

Use the following steps to add the ESS as an External Tool in Canvas. The **Consumer Key**, **Shared Secret**, and **C**

configuration Type fields are populated by copying the Consumer Key, Shared Secret, and either the LTI Cartridge or Configuration URL fields respectively from the ESS LTI configuration.

i Add the ESS as an External Tool at the Account Level

You can add the ESS as an External Tool at either the Account level or the Course level in Canvas. However we ***strongly recommend*** adding it at the Account level. This allows the ESS to deliver content to all courses configured between the ESS and Canvas.

Please note that the steps listed here are provided as a guide and are to be performed by the Canvas Administrator or Course Owner for an individual course. If you need more detailed information, please refer to the Canvas documentation.


1. Log in to Canvas as an Administrator.
2. Select the Top Level Account or a Sub Account under Managed Accounts.
3. Navigate to **Settings > External Tools**.
4. Click **Add External Tool**.
5. Enter a Name for the tool. This can be anything you want but should clearly identify this as the ESS from which Canvas will be consuming EchoCenter content.
6. Enter a **Consumer Key**. This ***must be exactly the same*** as the Consumer Key in the Canvas LTI Profile on the ESS.
7. Enter a **Shared Secret**. This ***must be exactly the same*** as the Shared Secret in the Canvas LTI Profile on the ESS.
8. For **Configuration Type**, you have the following options:
 - Select **By URL**. The dialog box changes, so that the only additional field to enter is the **Configuration URL**. Paste the **Configuration URL** from the Canvas LTI Profile on the ESS. The URL ***must be exactly the same, with no leading spaces or other characters***.
 - Select **Paste XML**. The dialog box changes, so that the only additional field to enter is **Paste XML Here**. Paste the **LTI Cartridge** script generated from the Canvas LTI Profile on the ESS. The XML ***must be exactly the same as it appears in the LTI Profile on the ESS***.
9. When finished, click **Save Tool Settings**.

Communication between the systems is now established. The final tasks, described in the next section, are to create or identify courses in Canvas, then associate those courses with the appropriate sections in EchoSystem. This final configuration allows the ESS to deliver the appropriate content to each user through Canvas.

Configure Sections to Publish to Canvas Courses

Using the Canvas LTI as the content provider for EchoCenter is different that the normal "Publishing" performed by other systems. For Canvas, instead of "pushing" the EchoCenter content out to a publisher, the Canvas LTI uses a "pull" method, where the user logs into Canvas, which then makes a call to the ESS to "pull" the appropriate content for the user into the Canvas interface.

In order for the ESS to know what content belongs to the logged in Canvas user, each course section in ESS needs to be associated with the Canvas course to which it belongs. This association is done through the External System ID field in the section page, shown in the below figure. For more information on creating and configuring sections, see [Manage Terms, Courses, and Sections](#).

EchoCenter	
<i>These settings control the behavior of the EchoCenter.</i>	
Disable at end of Term? :	<input type="checkbox"/>
Show podcast link? :	<input type="checkbox"/>
Show EchoPlayer link? :	<input checked="" type="checkbox"/>
External System Id :	<input type="text" value="WorldHist-2993"/> 
External System Id :	<input type="text"/>
External System Id :	<input type="text"/>
EchoCenter Logo Image :	<input type="text" value="None Available"/> ▾

Populate this field with the ID number for the corresponding Section in Canvas. This ID can be copied from the URL of the section page when open in Canvas. Navigate to the course page and click on the section link. In the sample URL below, the External System ID for the section would be 1107705.

`https://<institution name>.instructure.com/courses/832164/sections/1107705`

When a user logs into Canvas, the EchoCenter for the appropriate section is made available through the section page of the Canvas interface.

Desire2Learn LTI

In this section:

- [Overview](#)
- [Add the ESS as an External Tool in D2L](#)
- [Add D2L Course IDs to ESS Sections](#)
- [Add LTI Link to Each Course](#)

Overview

You can use LTI-Based publishing if you have:

- Desire2Learn version 9.4 or higher, and
- EchoSystem 5.2 with Service Pack 2 or higher

After you have created the Desire2Learn (D2L) LTI profile on the EchoSystem Server (ESS) you must configure D2L to securely communicate with the ESS. The instructions below provide an overview of the steps required to configure the D2L LTI tool.

The Instructor Must Be Properly Configured in the ESS to See the Instructor View

For instructors to be able to see the Instructor View of an EchoCenter page through the LMS, the following must be true for that user on the ESS:

- The Instructor must be configured as an Academic Staff user in the ESS.
- The Instructor must be configured as an Instructor on the section.
- The Instructor's user name and email address in the LMS **must match** the user name and email address in the ESS. For example an Instructor with the user name "instructor1" with the email address "instructor1@echo.com" in the ESS must also be "instructor1" in the LMS with the email address "instructor1@echo.com".
- The email address does not have to be valid (it can be a dummy address) but it does have to be unique to the user.

An Instructor not configured in this way sees the Student View of the EchoCenter.

Add the ESS as an External Tool in D2L

The instructions below are provided as a guide for entering and enabling the proper settings for communication with the ESS, and must be performed by the LMS Administrator. Be sure you have [created the D2L LTI Profile on the ESS](#) so you can copy the appropriate fields from that profile into the D2L LTI tool configuration. For additional information, refer to the D2L documentation.

1. Log into D2L as an Administrator.
2. Navigate to **Admin Tools > External Learning Tools**.
3. Above the Learning Tools list, click **New Link**.
4. In the New Link dialog box, complete the following **Properties** fields:
 - a. Enter a **Title** for the tool that clearly identifies EchoSystem as the external tool you are configuring.
 - b. Copy the Launch URL from the LTI Profile in ESS to the **URL** field in the New Link dialog box.
 - c. Enter a **Description** for the tool if desired.
 - d. Enable the **Visibility** checkbox.
5. Complete the following **Key/Secret** fields/values:
 - a. Enable the **Sign messages with key/secret** checkbox.
 - b. Select the **Link key/secret** radio button.
 - c. Copy the Consumer Key from the LTI profile on the ESS into the **Key field**.
 - d. Copy the Shared Secret from the LTI profile on the ESS into the **Secret field**.
6. Under **Security Settings**, be sure that the following checkboxes are checked (others can be checked if needed):
 - Send User ID to tool provider
 - Send Username to tool provider
 - Send User email to tool provider
7. When finished, click **Save**.

Your next steps are:


- [Add the D2L course IDs to the corresponding ESS sections](#), then
- Add a [Quicklink to the ESS LTI tool to the course pages](#) in D2L.

Add D2L Course IDs to ESS Sections

In order for the ESS to know what content belongs to the logged in user, each section in ESS needs to be associated with the LMS course to which it belongs. The External System ID field in the section page, shown in the below figure, provides this association.

Populate this field with the ID number for the corresponding LMS ID for the Course in D2L. The Course ID can be found by opening the Course page in D2L and looking at the URL for the course page. In the sample URL below, the External System ID to use would be 2040773.

<https://riverland.ims.mnscu.edu/d2l/home/2040773>

EchoCenter	
<i>These settings control the behavior of the EchoCenter.</i>	
Disable at end of Term? :	<input type="checkbox"/>
Show podcast link? :	<input type="checkbox"/>
Show EchoPlayer link? :	<input checked="" type="checkbox"/>
External System Id :	<input type="text" value="WldHst-2993"/> 
External System Id :	<input type="text"/>
External System Id :	<input type="text"/>
EchoCenter Logo Image :	<input type="text" value="None Available"/> ▾

For more information on creating and configuring sections, see [Manage Terms, Courses, and Sections](#).

After completing these steps for each course, be sure to add a link to the ESS LTI tool to each course page in D2L using the below instructions.

Add LTI Link to Each Course

Use the procedure below to add a link to the newly created ESS LTI tool to a course. As with the above instructions, these are provided solely as a guide. For additional information, refer to the D2L documentation.

1. Log into D2L as an Administrator or an Instructor.
2. From the Materials menu, select **Content**.
3. From the Add Quicklink menu, select **External Learning Tools**.

Menu Options May Vary by D2L Version

Depending on the version of D2L you are using, you may have an "Add Content" menu instead of an "Add Quicklink" menu. In this case, select **Add New Activity** from the Add Content menu, then select the ESS LTI tool created in the [Add the ESS as an External Tool in D2L](#) section above.

4. Select the ESS LTI tool.
5. Click **Insert**.
6. Select the **Module** where the link should reside.
7. Enter a **Title** for the link that identifies it for users.
8. Click **Save and Close**.

When a student logs into D2L and clicks the link on the course, the EchoCenter for the appropriate section is automatically shown through the D2L interface.

Moodle LTI

In this section:

- [Overview](#)
- [Add the ESS as an LTI Tool in Moodle](#)
- [Adding the LTI Activity Link to a Course](#)
- [Adding Moodle Course IDs to ESS Sections](#)

Overview

You can use LTI-Based publishing if you have:

- Moodle versions 2.2 or higher, and
- EchoSystem 5.2 with Service Pack 2 or higher

After you have created the Moodle LTI profile on the EchoSystem Server (ESS) you must configure Moodle to securely communicate with the ESS. The instructions below provide an overview of the steps required to configure the Moodle LTI tool. If you require further instructions, refer to the Moodle documentation.



The Instructor Must Be Properly Configured in the ESS to See the Instructor View

For instructors to be able to see the Instructor View of an EchoCenter page through the LMS, the following must be true for that user on the ESS:

- The Instructor must be configured as an Academic Staff user in the ESS.
- The Instructor must be configured as an Instructor on the section.
- The Instructor's user name and email address in the LMS **must match** the user name and email address in the ESS. For example an Instructor with the user name "instructor1" with the email address "instructor1@echo.com" in the ESS must also be "instructor1" in the LMS with the email address "instructor1@echo.com".
- The email address does not have to be valid (it can be a dummy address) but it does have to be unique to the user.

An Instructor not configured in this way sees the Student View of the EchoCenter.

Add the ESS as an LTI Tool in Moodle

The instructions below are provided as a guide for entering and enabling the proper settings in Moodle, and must be performed by the LMS Administrator. Be sure you have [created the Moodle LTI Profile on the ESS](#) so you can copy the appropriate fields from that profile into the Moodle LTI External Tool configuration.

1. Log into Moodle as an Administrator.
2. Navigate to **Site administration > Plugins > Activity modules > LTI**.
3. On the LTI External Tool Types page, click **Add external tool configuration**.
4. Enter a **Tool Name** that clearly identifies EchoSystem as the tool you are configuring.
5. Copy the following fields from the Moodle LTI Profile on the ESS into the corresponding fields on the Moodle LTI Tool form:
 - Launch URL > **Tool Base URL**
 - Consumer Key > **Consumer Key**
 - Shared Secret > **Shared Secret**
6. **Enable** the **Show tool type when creating tool instances** checkbox. This is required for the Echo360 tool to appear in the External tool type drop-down list, referenced in the instructions immediately below.
7. Click **Save changes**.

Adding the LTI Activity Link to a Course

In order for students to access the EchoCenter for a course, an Activity link to the EchoSystem External Tool tool must be added to each course. This can be done by the Administrator for all courses, or by the Instructor or a non-managing Teacher for specific courses.

1. Navigate to the Course Page: **Home > Course Name**.
2. Click the **Turn editing on** button.
3. Click the **+Add an activity or resource** link located at the top of the screen. Do not click under a specific week.
4. Select **External Tool** from the list on the left, then click **Add**.
5. Enter an **Activity Name** that clearly identifies the EchoCenter or Echo360 as the activity being added.
6. In the **External tool type** drop-down list, select the EchoSystem tool configured above.
7. DO NOT enter the Launch URL in this screen. That information is added in the external tool configuration steps above, NOT in the course activity configuration.
8. Click **Save and return to course**. The course page should now show an activity link to EchoSystem.

The final step is to add the course ID for each course into the corresponding section page configuration on the ESS.

Adding Moodle Course IDs to ESS Sections

In order for the ESS to know what content belongs to the logged in user, each section in ESS needs to be associated with the LMS course to which it belongs. The External System ID field in the section page, shown in the below figure, provides this association.

Populate this field with the **Course Short Name** found on the course Settings page for the corresponding course in Moodle.

✓ Best Practice: Use Course IDs for Associating Moodle Courses with ESS Sections

Course IDs are not a required field in Moodle but are preferred for this purpose. Best Practice is to:

- Create Course IDs for each Course in Moodle
- Make sure there are *no spaces* in the Course ID value.

EchoCenter	
<i>These settings control the behavior of the EchoCenter.</i>	
Disable at end of Term? : <input type="checkbox"/>	
Show podcast link? : <input type="checkbox"/>	Show vodcast link? : <input type="checkbox"/>
Show EchoPlayer link? : <input checked="" type="checkbox"/>	
External System Id : <input type="text" value="WldHst-2993"/>	External System Id : <input type="text"/>
External System Id : <input type="text"/>	External System Id : <input type="text"/>
External System Id : <input type="text"/>	External System Id : <input type="text"/>
EchoCenter Logo Image : <input type="text" value="None Available"/>	

For more information on creating and configuring sections, see [Manage Terms, Courses, and Sections](#).

When a student logs into the Moodle, the EchoCenter for the appropriate section is automatically shown through the course page of the Moodle interface.

Sakai LTI

In this section:

- [Overview](#)
- [Add the ESS as an LTI Tool in Sakai](#)
- [Adding Sakai Course IDs to ESS Sections](#)

Overview

You can use LTI-Based publishing if you have:

- Sakai version 2.9.1 or higher, and
- EchoSystem 5.2 with Service Pack 2 or higher

After you have created the Sakai LTI profile on the EchoSystem Server (ESS) you must configure Sakai to securely communicate with the ESS via LTI. The instructions below provide an overview of the steps required to properly configure Sakai to be able to consume and display ESS content via LTI. If you require further instructions, refer to the Sakai documentation.

The Instructor Must Be Properly Configured in the ESS to See the Instructor View

For instructors to be able to see the Instructor View of an EchoCenter page through the LMS, the following must be true for that user on the ESS:

- The Instructor must be configured as an Academic Staff user in the ESS.
- The Instructor must be configured as an Instructor on the section.
- The Instructor's user name and email address in the LMS **must match** the user name and email address in the ESS. For example an Instructor with the user name "instructor1" with the email address "instructor1@echo.com" in the ESS must also be "instructor1" in the LMS with the email address "instructor1@echo.com".
- The email address does not have to be valid (it can be a dummy address) but it does have to be unique to the user.

An Instructor not configured in this way sees the Student View of the EchoCenter.

Add the ESS as an LTI Tool in Sakai

The instructions below are provided as a guide for entering and enabling the proper settings in Sakai, and must be performed by the LMS Administrator. Be sure you have [created the Sakai LTI Profile on the ESS](#) so you can copy the appropriate fields from that profile into the Sakai LTI External Tool configuration.

1. Log into Sakai as an Administrator.
2. Navigate to **Site info > Edit Tools**.
3. Check the External Tool checkbox and click **Continue**.
4. Enter a **Title** for the new tool that identifies it as the EchoCenter and click **Continue** then click Finish to confirm creation of the tool.
5. Click the new tool node that appears on the left, then click the Edit icon on the top right of the screen.
6. Copy the following fields from the Sakai LTI Profile on the ESS into the corresponding **Required Information** fields on the Sakai IMS Basic Learning Tool Interoperability form:

- Launch URL > **Remote Tool URL**
 - Consumer Key > **Remote Tool Key**
 - Shared Secret > **Remote Tool Secret**
7. Under **Releasing Roster Information**, check BOTH boxes: **Send Names to the External Tool** and **Send Email Addresses to the External Tool**. This allows the ESS to properly identify users and deliver the appropriate section information.
 8. When finished, click **Update Options**.

Adding Sakai Course IDs to ESS Sections

In order for the ESS to know what content belongs to the logged in user, each section in ESS needs to be associated with the LMS course to which it belongs. The External System ID field in the section page, shown in the below figure, provides this association.

Populate this field with the ID number for the corresponding course Provider ID from Sakai. The Provider ID can be found by going to **My Workspace > Realms**. Page through until you see **Provider IDs**. Where there are multiple sections for a course, you will see multiple Provider IDs listed, separated by a + (plus sign). For example MATH111.SP13.001+MATH111.SP13.002. Each Provider ID corresponds to a section in the ESS and must be entered into the External ID field for the section in ESS.

Be sure to copy *only single Provider IDs* and NOT multiple IDs with the plus signs into the External ID field.

For more information on creating and configuring sections, see [Manage Terms, Courses, and Sections](#).

When a student logs into Sakai, the EchoCenter for the appropriate section is automatically shown through the course page of the Sakai interface.

Email Publisher

In this section:

- [Add the Email Publisher](#)

Add the Email Publisher

Only Echoes with an Available status can be published to the Email Publisher. See [Make an Echo Unavailable or Available](#) for details on making Echoes available.

1. Log in as an Administrator.
2. Select **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears as shown in the figure below.

Add Publisher

Publisher Details

Name :

Description :

Organization :

Publisher Type :

Use by Default :

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **Email Publisher**. The page expands to include a section on Publisher Configuration that is specific to the Email Publisher, as shown in the figure below.

Publisher Configuration

SMTP Host : Port :

To Address : Send to Presenters? :

From Address : Enable TLS :

Post Podcast : Post Vodcast :

Post EchoPlayer :

SMTP Authentication

Requires Authentication? :

User Name : Password :

7. If you want use Email as your default publisher, select the **Use by Default** check box.
8. In the SMTP Host box, enter the URL of your mail server.
9. In the Port box, enter the port on the mail server that emails from the EchoSystem should use.
10. In the To Address and From Address, enter the email address that emails from the EchoSystem should be sent to and from.
11. Select the **Send to Presenters?** box to notify Academic Staff who are serving as Presenters by email that their Echo is ready to view. This allows Academic Staff to review an Echo before releasing it to the public.

i Email notifications

When this option is selected, this email becomes the first in a series of two that Academic Staff receive after publishing an Echo. This one, the first, notifies Academic Staff that the Echo has completed processing. The second lets them know that the Echo is available for students to view.

12. By default, the **Enable TLS** box is selected. Transport Layer Security (TLS) encrypts the emails.
13. By default you will post Podcast, Vodcast, and EchoPlayer versions of your Echo to the Email Publisher. *Post EchoPlayer* means that you will post a rich media version viewable in the EchoPlayer (student player). Change these if necessary by clearing the check boxes.
14. Click **Test Settings**. If the settings are not correct, a message appears detailing the problem. Correct any necessary information.
15. If the SMTP host requires authentication, select the **Requires Authentication** box and then enter the server's user name and password.
16. Click **Save** to save the new publisher.

Closed Captioning and Transcript Publisher

In this section:

- [Overview](#)
- [Coordinate With the Closed Captioning Provider](#)
- [Add the Closed Captioning and Transcript Publisher](#)

Overview

If you use a closed captioning provider to add closed captions to Echoes, add the provider as your closed captioning publisher. Echoes will be automatically published to that provider, which can then add the closed captions.

Setting up this functionality requires these two phases:

1. [Coordinate With the Closed Captioning Provider](#)
2. [Add the Closed Captioning and Transcript Publisher](#)

Coordinate With the Closed Captioning Provider

Your closed captioning provider must:

- Create a folder called **~/incoming** within the SFTP account on their secure server
- Tell you the SFTP server address and SFTP account name
- Tell you the private key for the SFTP account

You will need the latter two items when adding the Closed Captioning and Transcript Publisher.

This structure allows the Closed Captioning and Transcript Publisher to publish the .mp3 and metadata files to this location: `https://<sftp server name>/<account name>/incoming`.

Add the Closed Captioning and Transcript Publisher

1. Log in as an Administrator.
2. Select **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears as shown in the figure below.

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **Closed Captioning and Transcript**. The page expands to include a section on Publisher Configuration that is specific to Closed Captioning and Transcript, as shown in the figure below.

7. If you want Closed Captioning and Transcript to be your default publisher, select the **Use by Default** box.
8. In the SFTP Server field, enter the URL to the Secure File Transfer Protocol (SFTP) server that you will use to transfer files.
9. In the Account Name field, enter the name of the account used to access the SFTP server.
 - An **incoming** subfolder is required within the SFTP account
 - The subfolder allows the Closed Captioning and Transcript publisher to transfer the .mp3 and metadata files to the service provider
10. In the Private Key field, enter the private key for the account.
11. Click **Test Settings** to verify that a connection can be established. If it cannot be established, you receive a detailed error message.
12. Click **Save**.

iTunes U

In this section:

- [Overview](#)
- [Add an iTunes U Publisher](#)
- [Troubleshooting: If Posting Fails](#)

Overview

iTunes U is a course management system from Apple Computer, Inc. that you can integrate with EchoSystem

Server (ESS). Once integrated, iTunes U becomes a publisher of your Echoes, which means that ESS automatically uploads Standard Podcast (MP3 audio) and Vodcast (M4V) files to your iTunes U site. The audio files become content that is visible in a defined tab in iTunes U.

ESS automatically uploads content to an existing iTunes U repository. It can also serve RSS feeds created in ESS to iTunes U. The integration process described here does not describe how to design, configure, or administer iTunes U sites. For this information, refer to the [iTunes U Administrator's Guide](#).

i Disclaimer

Apple supports iTunes U only in North America. If you are outside North America, manually link to [RSS](#).

Before adding an iTunes U publisher, you must have the iTunes U account information that Apple provided to the institution. You can get the account information from the iTunes U Administrator or System Administrator. Along with the account, you must have access to the iTunes U site using iTunes.

Add an iTunes U Publisher

1. Log in as an Administrator.
2. Select **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears as shown in the figure below.

Add Publisher

Publisher Details

Name :

Description :

Organization :

Publisher Type :

Use by Default :

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **iTunes U**. The page expands to include a section on Publisher Configuration that is specific to iTunes U.

Add Publisher

Publisher Details

Name :

Description :

Organization :

Publisher Type :

Use by Default :

Publisher Configuration

iTunes U Site URL : Credentials :

Shared Secret : Display Name :

User Name : User ID :

Email Address : Podcast :

Vodcast :

Connect to iTunes U

Save
Cancel

7. If you want iTunes U to be your default publisher, select the **Use by Default** check box.
8. Enter your account information in the iTunes U Site URL, Shared Secret, and Credentials fields. This information is required and you cannot publish without it. If you do not have it, consult your System Administrator.
9. Enter your user name, e-mail address, display name, and User ID. You can publish to iTunes U without this information but providing it customizes your iTunes U page.
10. If you want to publish a Podcast or Vodcast, check those boxes.
11. Test your settings by clicking **Connect to iTunes U**. If the settings are not correct, a message appears detailing the problem. Correct any necessary information.
12. Click **Save** to save the new publisher.

Troubleshooting: If Posting Fails

When the ESS and iTunes U time servers are out of sync by more than 60 seconds, postings fail.

You will see publishing error messages in the [ESS log](#) that look like a configuration issue:

PublishingException while publishing
presentation

```
[51d31848-26e7-4246-aa18-b43249884c04] to
LMI iTunes: An unknown error occurred while
trying to upload to iTunes U. Please check
the 'ess.log' file for more details.
com.echo360.ess.publish.PublishingException:
An unknown error occurred while trying to
upload to iTunes U. Please check the
'ess.log' file for more details.
at
com.echo360.ess.plugins.itunesu.ItunesuUploa
der.validateUploadUrl(ItunesuUploader.java:1
49) ~[na:na]
at
com.echo360.ess.plugins.itunesu.ItunesuUploa
der.uploadMediaToItunes(ItunesuUploader.java
:71) ~[na:na]
at
com.echo360.ess.plugins.itunesu.iTunesuPubli
shingPlugin.publish(iTunesuPublishingPlugin.
java:37) ~[na:na]
at
sun.reflect.NativeMethodAccessorImpl.invoke0
(Native Method) ~[na:1.6.0_24]
at
sun.reflect.NativeMethodAccessorImpl.invoke(
NativeMethodAccessorImpl.java:39)
~[na:1.6.0_24]
at
sun.reflect.DelegatingMethodAccessorImpl.inv
oke(DelegatingMethodAccessorImpl.java:25)
~[na:1.6.0_24]
```

at

java.lang.reflect.Method.invoke(Method.java:
597) ~[na:1.6.0_24]

at

com.echo360.ess.service.impl.PublisherService
Impl\$1.run(PublisherServiceImpl.java:227)
~[ess-lib-4.0.14-SNAPSHOT.jar:4.0.14-SNAPSHO

```
T]
at java.lang.Thread.run(Thread.java:662)
~[na:1.6.0_24] Posting Will Fail
```

To avoid this error, ensure that the ESS machine is synchronized to a non-Windows NTP server such as the Echo NTP server.

RSS Feeds

In this section:

- [Overview](#)
- [Create the Publisher Module](#)
- [Instantiate the Publisher Module](#)

Overview

You can configure an EchoSystem Server (ESS) so it creates an RSS feed automatically when an Echo is ready for distribution.

Configuration consists of these phases:

1. Creating the *publisher module*. The publisher module, which is the main component, defines how the publisher behaves when it is invoked. It appears at the system configuration level.
2. *Instantiating* the publisher module for each section. Operating components ("instances") determine which Echoes invoke the publisher. They appear at the section and Echo levels. A section or Echo that makes use of a publisher module instantiates it.

System Settings determine the URL used for RSS feeds

The URL used for RSS Feeds is determined by the [Application Network Settings](#) configured in the [System Settings](#) page, and whether you are using an internal or an external web server.

Briefly, the configurations work as follows:

- If you are using an internal web server, and serving "mixed content" (HTTPS for App/HTTP for Content, with or without reverse proxy), the Host Name and Port shown in the [Content Network Settings](#) are used for RSS feeds.
- If you are using an internal web server and using ALL HTTPS for serving content (with or without reverse proxy), the Legacy Content Host Name and Port (HTTP) are used for RSS feeds.
- If you are using an external web server, regardless of how you are serving the content, the Host Name and HTTP port listed in the [Active Echo Settings](#) section of the System Settings page are used for serving RSS feeds.

If you are having problems with RSS feeds, be sure to check the appropriate Host Name and Port settings on the System Settings page (keeping in mind that RSS feeds require the use of an HTTP port).

Create the Publisher Module

1. Log in as an Administrator.

2. Navigate to **Configuration > Publishers**.
3. Click the **Add** button.
4. In the Publisher Details section, populate the fields as described in the following table.

Field	Description
Name	Give the publisher a recognizable identifier <div style="border: 1px solid #0070C0; padding: 5px; margin-top: 10px;"> <p>i Remember This Name</p> <p>You will need this name when instantiating the publisher.</p> </div>
Description	Optional
Organization	Select the organization from the drop-down list
Publisher Type	Select RSS Feeds from the drop-down list
Use by Default	Check this box if you want all new sections created to instantiate this publisher. <ul style="list-style-type: none"> • This means that new sections are automatically publicized via RSS feeds. • You still have to instantiate the publisher for existing sections

5. In the Enclosure Metadata section, choose the descriptive information that will appear with each entry in the generated RSS feed.
6. In the Publisher Configuration section, populate the fields as described in the following table.

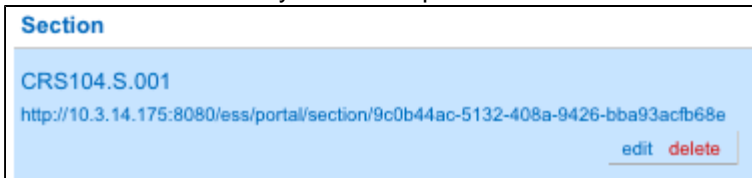
Field	Description
Create Audio Podcast Feed	Check to create an audio podcast feed
Create Enhanced Podcast Feed	The Enhanced Podcast product was supported through EchoSystem 3.0. Check this box if you will be using this RSS feed to distribute Echoes made with EschoSystem 3.0 or earlier.
Create Vodcast Feed	Check to create a video podcast feed
Language	Enter the language code for the represented country's language. See the following Microsoft MSDN library page for a list: http://msdn.microsoft.com/en-us/library/ms533052%28v=vs.85%29.aspx .
Title Template	Name of the RSS feed. It appears as the feed identifier in the Web browser or feed reader. The built-in variables %course , %section , and %term expand to the actual values for the course, section, and term.

Publish for all Sections in Course and Term	<p>If disabled, the generated feed will contain only Echoes from the section instantiating the module.</p> <p>If enabled, the generated feed contains <i>all Echoes from the entire course</i> of the section instantiating the publisher (basically combining the feed for all sections of the course). In this case, the <code>%section</code> variable in the title template does not function.</p>
---	--

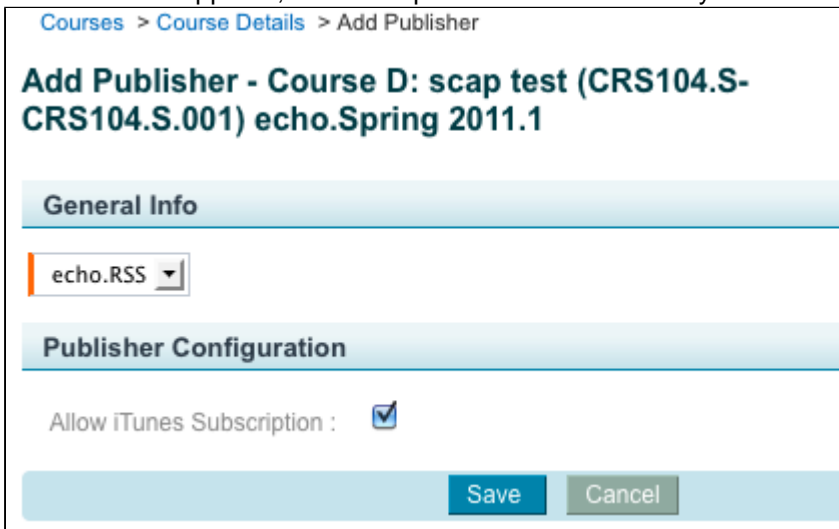
- In the iTunes Group section, use the checkbox to select whether to **Enable iTunes Tags** for sections published through this RSS feed. iTunes tags are items that appear in the iTunes RSS interface for the broadcast section and are configured on the Edit Section page if this RSS Publisher is selected. See [Instantiate the Publisher Module](#) immediately below for Instructions on adding iTunes tags.
- Click **Save**.

Instantiate the Publisher Module

- Log in as an Administrator.
- Navigate to **Schedule > Courses**.
- Click the name of a course containing a section to be published. The Course Details page appears, listing the course's sections at the bottom of the page as shown in the figure below.
- Hover over the section you want to publish.



- Click the **edit** button. The Edit Section page appears.
- Near the bottom of the page, click **Add Publisher** in the Configured Publishers area.
- In the box that appears, select the publisher module name you created earlier, as shown in the figure below.



- Select the **Allow iTunes Subscription** box if you want to allow iTunes users to receive the RSS feed from within the iTunes application.

iTunes U publishing is different.

Allowing iTunes users to receive RSS feeds is different from publishing to iTunes U. See [iTunes U](#).

9. If the selected RSS Publisher has enabled iTunes tags, an iTunes Group section appears, shown in the following figure. These fields are recommended but optional, and relate to how iTunesU presents information on the section to users.

The screenshot shows a configuration window with the following sections:

- General Info:** A dropdown menu set to "RSS with iTunes U Tags".
- Publisher Configuration:** A checkbox for "Allow iTunes Subscription" which is checked.
- iTunes Group:**
 - "Enable iTunes Tags" is set to "Yes".
 - Four text input fields: "Channel Author", "Channel Summary", "Channel Category", and "Channel Sub-Category".

At the bottom of the window are "Save" and "Cancel" buttons.

The table below describes the field information requested, as indicated on Apple's iTunesU website for Podcast and RSS feed specifications: <http://www.apple.com/itunes/podcasts/specs.html#rss>. All fields are limited to 255 characters, except for Summary which is limited to 4000.

Field Name	Description/Use
Channel Author	Appears in the "Artist" column. Indicates the author or organization responsible for the content, such as the organization or academic department to whom the section belongs.
Channel Summary	Provides a description that appears separate window when the "circled i" in the Description column is clicked. It also appears on the iTunes page for your podcast.
Channel Category	Appears in the "Category" column and for iTunes Browse feature, allowing users to find the podcast. There are two ways to browse podcast subject categories on iTunes: Click Browse under Features at the bottom of the iTunes Store window or select a category from the Podcasts pop-up menu in the navigation bar. See http://www.apple.com/itunes/podcasts/specs.html#categories for a complete list of supported Categories and Sub-Categories.

Channel Sub-Category	<p>Functions like Channel Category but allows for further narrowing of the subject matter or material covered in the podcast.</p> <p>See http://www.apple.com/itunes/podcasts/specs.html#categories for a complete list of supported Categories and Sub-Categories.</p>
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10. Click **Save**.
11. Notice that the RSS Feed URLs appear at the top of the page.

Courses > Course Details > Edit Section

Edit Section – Intro to Linguistics (LING 101-MWF section) Spring 2013

RSS Feed URLs : Podcast: https://ess1-white.qa.echo360.com:8443/ess/feed?id=5470d239-479d-4de8-b54d-738ae85bb8a0&type=MP3
Enhanced Podcast (this feed is only applicable for Echoes created with version 3.0 or earlier): https://ess1-white.qa.echo360.com:8443/ess/feed?id=5470d239-479d-4de8-b54d-738ae85bb8a0&type=M4B
Vodcast: https://ess1-white.qa.echo360.com:8443/ess/feed?id=5470d239-479d-4de8-b54d-738ae85bb8a0&type=M4V

12. On the Edit Section page, click **Save** again.
13. To immediately use the URLs produced by the publisher, click the title of any Echo, instantiating it from the Echoes list in your ESS. The URLs for the chosen products are listed at the top of the page. If you configured other publishers (Moodle, Blackboard, and so on), these publishers advertise the presentation URLs in their publications.

ANGEL Learning Management Suite

In this section:

- [Overview](#)
- [Modify ANGEL Settings](#)
- [Configure the ESS](#)

Overview

The EchoSystem supports automatic publication of links to courses within the ANGEL Learning Management Suite (ANGEL).

To create this functionality, you must:

1. Modify ANGEL settings
2. Configure the EchoSystem Server (ESS).

Modify ANGEL Settings

Some ANGEL settings must be modified. Others are optional, but recommended. Follow these steps.

1. Modify the required settings:
 - Create or specify an ANGEL Admin User for the ESS. You will need the user name and password when configuring the ESS ANGEL Publisher.
 - If you use the API_ACCESS Environment Variable on your ANGEL server, add the SECTION_SEARCH and SECTION_ITEM_CREATE items.
 - Add the COURSE_ID for each ANGEL course you will be publishing to.
2. Modify the optional settings:
 - Add the Admin user you just specified to the API_USER environment variable. This means the ANGEL Admin user is restricted from interactive login. The user can only log in and use the API

- programmatically.
- The API_ACCESS Environment Variable can be used to limit the Admin user to just the two specific API function calls required: SECTION_SEARCH and SECTION_ITEM_CREATE.
- Enable the LOG_API_CALLS Environment Variable to log all of the API calls.

Configure the ESS

Configuring the ESS consists of these phases:

- Configuring the publisher.
- Configuring the schedules. The specific process you use varies, depending on whether you are applying the publisher to existing Echoes, existing schedules, or new schedules.

Configure the Publisher

- Log in the ESS.
- Navigate to **Configuration > Publishers**.
- Click **Add**. The Add Publisher page appears, as shown in the figure below.
- Enter a name and description.
- Select a parent or child organization from the list.
- From the Publisher Type list, select **Angel Learning System**. The page expands to show the configuration settings for ANGEL Learning System.

Add Publisher

Publisher Details

Name :

Description :

Organization :

Publisher Type :

Use by Default :

Publisher Configuration

Application URL : <input type="text"/>	Rich Media Folder Name : <input type="text"/>
Download Folder Name : <input type="text"/>	Angel API Username : <input type="text"/>
Angel API Password : <input type="text"/>	Post Podcast : <input checked="" type="checkbox"/>
Post Vodcast : <input checked="" type="checkbox"/>	Post Rich Media : <input checked="" type="checkbox"/>

Connect to Angel

Save
Cancel

- If you want ANGEL to be your default publisher, select the **Use by Default** box.
- Fill in the required fields and the optional field if desired:
 - Name:** The Publisher name. It will appear elsewhere in the application.
 - Application URL:** The URL for the ANGEL application.
 - Rich Folder Name:** The folder inside each ANGEL course where the rich media content links will be posted. The publisher creates this folder if it does not exist in ANGEL.

- **Download Folder Name (optional):** The folder inside each ANGEL course where the download links (Podcast and Vodcast) will be posted if specified. If you do not specify a download folder name, links are posted in the Rich Media Folder. The publisher will create this folder if it does not exist in ANGEL.
 - **Angel API Username:** The user name of the ANGEL user, which has been granted ANGEL API access.
 - **Angel API Password:** The password for the above user.
9. If you want to post a Vodcast, a Podcast, or rich media of your Echo to ANGEL, click the respective boxes.
 10. Test the settings by clicking the **Connect to Angel** button. If the connection attempt is unsuccessful, verify each of the settings.
 11. Click **Save**.

Configure the Schedule

The ANGEL publisher can be applied to existing Echoes, existing schedules or new schedules.

For Existing Echoes (Presentations)

1. Navigate to the Echoes page
2. Hover over the Echo to publish.
3. Click the **edit** link.
4. Click the **Add New** button in the Presentation Publishing Settings section.
5. Select the ANGEL publisher created above.
6. Enter the unique Course ID for the course content you are publishing. This is the COURSE_ID you created when you modified ANGEL settings.
7. Save the publisher and the Echo.

For Existing Schedules

1. Navigate to the schedule.
2. Click the **Add New** button in the Publisher section.
3. Select the ANGEL publisher created above.
4. Enter the unique Course ID for the course content you are publishing. This is the COURSE_ID you created when you modified ANGEL settings.
5. Save the schedule.

For New Schedules

If you selected the Use by Default option when configuring the publisher, follow these steps.

1. Click the ANGEL publisher name link in the schedule and add the Course ID when prompted.
2. Save the schedule.

If you wish to publish content from a certain schedule to multiple courses within ANGEL, add the same publisher to the schedule and type in the Course ID for the additional course.

Echo360 Search Indexing

In this section:

- [Add the Echo360 Search Indexing Publisher](#)

Add the Echo360 Search Indexing Publisher

1. Log in as an Administrator.
2. Select **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears as shown in the figure below.

Add Publisher

Publisher Details

Name :

Description :

Organization : Echo360 ▾

Publisher Type : Choose... ▾

Use by Default :

Save
Cancel

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **Echo360 Search Indexing**.
7. If you want Echo360 Search Indexing to be your default publisher, select the **Use by Default** box.
8. Click **Save**.

3Play Media

In this section:

- [Overview](#)
- [Procedure](#)

Overview

See the 3Play Media website for an overview of the integration:

<http://www.3playmedia.com/services-features/tools/integrations/echo360/>

Procedure

Adding the 3Play Media closed captioning publisher requires configuration of both the Echo360 ESS (EchoSystem Server) and the 3Play Media account.

See the instructions on the 3Play Media website:

<http://support.3playmedia.com/entries/21440817-echo360-link-your-echo360-account-to-your-3play-media-account>

TWEN

In this section:

- [TWEN Support Ends in 2013](#)
- [Overview](#)
- [Add the TWEN Publisher](#)

TWEN Support Ends in 2013

Support for TWEN ends in January 2013, with release 5.2. It will be available (and visible in the user interface) for a short time to allow customers to transition to another publisher. In a later release, TWEN will be removed from the ESS code and user interface.

Overview

The West Education Network® (TWEN) is an online extension of the law school classroom at <http://lawschool.westlaw.com>, the virtual law school community. Using TWEN, you can create and manage courses online, access and post course materials on document pages, create assignments that your students can receive and submit, organize and participate in class forums and live discussions, administer online quizzes, exchange e-mails with other professors and students, and more.

Add the TWEN Publisher

1. Log in as an Administrator.
2. Select **Configuration > Publishers**.
3. Click **Add**. The Add Publisher page appears as shown in the figure below.

The screenshot shows the 'Add Publisher' form with the following fields and values:

- Name :** [Empty text input field]
- Description :** [Empty text input field]
- Organization :** [Echo360 (dropdown menu)]
- Publisher Type :** [Choose... (dropdown menu)]
- Use by Default :** [Unchecked checkbox]

At the bottom of the form are two buttons: **Save** and **Cancel**.

4. Enter a name and description for the publisher.
5. Select the parent or child organization to which this publisher belongs.
6. From the Publisher Type list, select **TWEN**. The page expands to include a section on Publisher Configuration that is specific to TWEN, as shown in the figure below.

Add Publisher

Publisher Details

Name :

Description :

Organization :

Publisher Type :

Use by Default :

Publisher Configuration

URL : Password :

Post Podcast : Post Vodcast :

Post Rich Media :

Connect to TWEN

Save
Cancel

7. If you want TWEN to be your default publisher, select the **Use by Default** box.
8. Enter the URL for the TWEN Calendar Web Service. By default, this is **http://lawschool.westlaw.com/services/calendar.aspx/EventCreatePasswordExpanded**.
9. Enter your TWEN password. You can get this from your TWEN account manager.
10. By default you will post Podcast, Vodcast, and EchoPlayer versions of your Echo to TWEN. Change these if necessary by clearing the check boxes.
11. Click **Connect to TWEN** to verify that a connection can be established. If it cannot be established, you receive a detailed error message.

Live Webcasting

In this section:

- [Overview](#)
- [Live Webcasting for Academic Staff](#)
- [Live Webcasting for Students](#)

Overview

Live webcasting supports **blended distance learning**, where the Instructor teaches some students in a traditional classroom environment and other students are outside of the classroom, either all of the time or some of the time. The remote students are each logged in to the presentation on their own computers, watching the rich multimedia presentation as it occurs. Of course, the presentation can also be recorded and published in multiple formats so that every student can view it later.

Live webcasting can also be used for **special events** (commencements, graduations, guest speakers), with

participants both inside and outside of the university. Live webcasts (because of their moderate bandwidth requirement) can be viewed by PC and Mac users with a broadband Internet connection. You can also establish an agreement with a CDN (Content Delivery Network) provider to reach a large and geographically diverse audience.

Live webcasting can be used for classroom overflow situations, where another classroom is set up to seat students who cannot be accommodated in the main classroom. An overflow classroom typically uses a large screen, which requires high bandwidth and large resolutions. Live webcasting is optimized for the individual student, who is viewing on a laptop browser. This means that classroom overflow webcasts may look coarse and grainy on the large screen.

More information on setting up and administering live webcasting can be found on the following pages:

- [Specifications for Live Webcasting](#)
- [Configure and Enable Live Webcasting](#)
- [Live Webcasting FAQs for Admins](#)

❗ Non-Jetty Web Servers and Live Chat

If you use an external Apache or IIS web server and you will be using live webcasting with the chat feature enabled, see [External Web Server Configuration for Live Chat](#) for a configuration change that may be required.

Live Webcasting for Academic Staff

Live webcasting does not change the classroom experience much for an Instructor, but it does place two additional demands on an Instructor or Teaching Assistant (TA):

- **Monitoring** at the beginning of the live webcast to ensure that remote students are seeing the webcast properly. See [Monitor the Webcast](#).
- **Managing chat.** During a live webcast, remote students can submit questions to the Instructor and communicate with other students using the **chat** feature. See [Manage Chat](#).

See [Live Webcasting for Academic Staff](#) for these sections and further details.

Live Webcasting for Students

The student experience of watching a live webcast is nearly identical to viewing an Echo, except that students are viewing the class in real-time. If chat is available for the webcast, remote students can participate in the classroom discussion or ask questions. Their experience is similar to the experience of being present in the classroom.

For more information, see [Live Webcasting for Students](#).

Specifications for Live Webcasting

In this section:

- [Bandwidth Requirements for Capture and Media Formats](#)
- [Hardware, Software, and Licensing Requirements](#)
- [Security](#)

Bandwidth Requirements for Capture and Media Formats

⊖ Note on VOD Capture that is also scheduled for Live Streaming (via SafeCapture HD)

If a recording that is scheduled to be captured, is also scheduled for Live Streaming, the resulting VOD capture file will be recorded at 480px high per the table below. In most cases, this results in a 640x480 capture. This means that if you schedule a capture with live streaming enabled, even if the VOD setting is set to 720p or 1080p, the resulting VOD capture file will be recorded at 480px high.

The SafeCapture HD is capable of doing single-encode per channel and chooses the Live profile parameters to encode to. The SafeCapture HD does not encode at the VOD settings as, in the event of a 720p or 1080p VOD, this would cause the live stream to be streamed at 720p or 1080p which requires extremely high bandwidth.

The below table lists the specifications for live streams based on product selection. In the table and examples that follow, kbps=kilobits per second; fps = frames per second; Mbps = megabits per second.

Stream Content	Audio	Display	Video	Second Display	Stream to Wowza	Stream per Viewer from Wowza
Audio + Display	AAC, 128 kbps stereo	H.264, VBR 720 px high 15 fps 475 kbps	–	–	~605 kbps	~ 630 kbps
Audio + Video	AAC, 128 kbps stereo	–	H.264, VBR 480 px high 15 fps / 12.5 fps 365 kbps	–	~495 kbps	~515 kbps
Audio + Display + Video	AAC, 128 kbps stereo	H.264, VBR 720 px high 15fps 475 kbps	H.264, VBR 480 px high 15fps / 12.5fps 365 kbps	–	~970 kbps	~980 kbps

Audio + Display + Display	AAC, 128 kbps stereo	H.264, VBR 720 px high 15 fps 475 kbps	–	H.264, VBR 720 px high 15 fps 475 kbps	~1080 kbps	~1100 kbps
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To estimate bandwidth:

1. Calculate the total bandwidth from the SafeCapture HD to the Wowza Media Server (Wowza) by adding the rate for each content type required. If your live event includes audio, video, and display, the bandwidth consumed for this single transfer is 970kbps.
2. Estimate the total number of viewers, then calculate the total bandwidth for the output from the Wowza Media Server to each viewer. The examples below provide calculation scenarios for estimating total bandwidth requirements.

i Examples: Estimating Bandwidth Requirements

Example 1: A class has 30 students who will view the live webcast. The Presenter wants to share a PowerPoint presentation (display), audio, and a camera feed showing a blackboard (video).

- Total bandwidth from the SafeCapture HD to the Wowza Media Server: ~970 kbps (475 kbps for display graphics + 365 kbps for video + 128 kbps for audio).
- Total bandwidth from the Wowza Media Server to the students: 30 students x 980 kbps/student = 29,400 kbps (~29.5 Mbps).
- Total bandwidth usage from capture to students: 970 kbps + 29,400 kbps = 30,370 kbps (~30.4 Mbps).

Example 2: Twenty students are viewing a webcast that includes audio and a document camera (display).

- Bandwidth from SafeCapture HD to the Wowza Media Server: ~605 kbps (475 kbps for display + 128 kbps for audio).
- Total bandwidth from the Wowza Media Server to the students: 20 students x 630 kbps = 12,600 kbps (~12.6 Mbps).
- Total bandwidth usage from capture to students: 605 kbps + 12,600 kbps = 13,205 kbps (~13.25 Mbps).

The number of concurrent connections also determines the CPU and RAM requirements. This article, from Wowza Media Systems, advises on performance tuning: <http://www.wowza.com/forums/content.php?5-general-tuning>.

Adaptive streaming is not supported. A single bandwidth, which provides broad compatibility (including lower-speed broadband network connections) is supported.

Hardware, Software, and Licensing Requirements

Live webcasting requires a classroom that has:

- The **SafeCapture HD** appliance installed in the venue.
- A **license that allows live webcasting**.
 - If you purchased the EchoSelect (EchoReady) **site** license, no further configuration is necessary. This license includes live webcasting and, because it is a site license, all venues are enabled.
 - If you purchased **venue** licenses for your devices, you must [assign the licenses to each venue](#) where the capture appliances are installed.

In addition to a live license, in order to use the chat and presence features of live webcasting, you must have registered your ESS with Echo360's [Collaboration and Statistics service](#). You can use live webcasting without this service, but the chat and presence features will not be available.

Non-Jetty Web Servers and Live Chat

If you use an external Apache or IIS web server and you will be using live webcasting with the chat feature enabled, see [External Web Server Configuration for Live Chat](#) for a configuration change that may be required.

You must have the Wowza Media Server v3.0 or higher. EchoSystem v5.4 requires the use of Wowza v3.5 or 3.6. The Wowza Media Server must have the Wowza production license. The development or staging license does not offer enough connections to support live webcasting.

For more information on configuring Wowza, see [Configure the Flash Media Streaming Server](#).

Live Webcasting from an External Wowza Server

Echo360 has introduced support for iOS viewing of Live streams. If you are currently using an external Wowza server to serve Live webcasts, this change in support requires an update to the Wowza configuration. See [Enabling iOS Live Streaming](#) for information and instructions.

Other Flash media streaming servers, such as the Adobe Flash Media Streaming Server, cannot be used for live webcasting. You can use Adobe FMS3 for your on-demand content if desired.

Security

The [security settings of your section](#) determine whether students must be authenticated to join a live webcast or if you will allow unauthenticated users. The security settings you use will likely be determined by the purpose of the webcast. For example, if you configure a regular class to provide a live webcast of the class sessions, you will probably set the security for the section to only allow access by students and Academic Staff associated with the section. If you are configuring a special event such as a live webcast, you may configure security for the section to "Allow All" so that it can be viewed by anyone with access to the URL for the webcast.

Authenticated and Unauthenticated Users

Authenticated users are those who log in to view a webcast and can be identified by the system. Unauthenticated users are not required to log in and cannot be identified by the system. Collaboration features such as chat and presence only appear for users who can log in to (and therefore be identified by) the webcast.

Students join a live webcast one of three ways:

- By logging in to an LMS, and, from there, to the section's EchoCenter page. Students are authenticated, so

chat and other applications are enabled.

- By logging in directly to the section's EchoCenter page. Students are authenticated, so chat and other applications are enabled.
- By clicking on the live event URL from an email you send or from a website where it is posted. Students may or may not be authenticated, depending on the section security settings.

You can allow both authenticated and non-authenticated students in an event if you configure a section to "Allow All" users, but encourage a workflow where some students join through authenticated methods (such as using seamless login from a LMS) and others access the live webcast directly. Only the authenticated students will have access to webcasting tools such as **chat** or **presence**, but all students will be able to view the live webcast.

Chat entries are processed with the webcast and attached to the Echo. This means that anyone viewing the Echo can also review the chat.

Why Are Only Some Students Authenticated?

As noted above, you can configure section security settings to "Allow All" so that users are not required to log in to view the live webcast, but encourage users to join through an LMS which provides seamless login. In this case, some students are authenticated but others are not.

Even if you don't use this configuration, you may find that some users are authenticated while others are not.

This occurs because of **authentication carryover**. If a student has recently logged into another section's EchoCenter or LMS page, the login may persist in the browser session. When the student accesses the live webcast URL, the login is passed through. This authenticated student can use the chat feature and see the presence list, showing what other students are logged into the webcast. Students who are not authenticated in this way will not see the chat or presence features.

Configure and Enable Live Webcasting

In this section:

- [Overview](#)
- [Prepare the Infrastructure](#)
- [Enable Live Webcasting](#)
- [Administer the Live Webcast](#)

Overview

The administrative tasks for live webcasting involves a variety of configuration and setup items, and consists of these phases:

1. [Prepare the infrastructure](#).
2. [Train Academic Staff](#) to use live webcasting.
3. [Enable live webcasting](#) for the section or special event.
4. [Notify students of the live webcast](#).
5. [Monitor](#) the live webcast, if necessary.
6. [Control the live webcast](#) as needed.

Prepare the Infrastructure

The architecture for live events consists of:

- A source: The EchoSystem SafeCapture HD
- A reflector: The Wowza Media Server (Wowza) to stream live Flash media content
- A sink: One or more EchoPlayers that allow students to view the content

Preparing the infrastructure consists of these phases:

1. [Enable licensing](#).
2. Registering the ESS with Echo360's [Collaboration and Statistics Service](#) (only required if using chat and presence features of live webcasting).
3. [Configure the Wowza Media Server](#), including [configuring the system streaming settings](#) for the ESS.
4. [Optional - Distribute live webcasts with a CDN](#).

If you are currently using an Internal configuration of Wowza, and the combined load of live webcasts and on-demand recordings exceeds the capacity of the media server, you will want to convert to an External configuration of Wowza. Furthermore, the use of Wowza v4 with EchoSystem requires you to use an External configuration.

See [Configure the Flash Media Streaming Server](#) and [Configure an External Wowza Media Server](#) for media server configuration information as needed.

Enable Licensing

1. [Update](#) the ESS to use the EchoSelect license. This license includes live webcasting as an option.
2. Do one of the following:
 - a. If you have a site license, continue with configuration. See [Configure the Wowza Media Server](#)
 - b. If you have venue licenses, [assign the licenses](#) to venues (typically classrooms) that will have live webcasting.

Chat and Presence requires the Collaboration and Statistics Service

The chat and presence features for live webcasting are only available if you have the Collaboration and Statistics service registered for your system. See [Collaboration and Statistics Service](#) for more information.

Configure the Wowza Media Server

Live Webcasting Requires the Wowza Media Server

If you are using live webcasting, the Flash media streaming server for your live content must be Wowza Media Server v3.0 or higher. EchoSystem 5.4 requires the use of Wowza v3.5, v3.6 or v4. See [Configure the Flash Media Streaming Server](#) for more information.

1. Make sure the Wowza Media Server has a production license. Each viewer receiving the live webcast requires at least four connections to the Wowza Media Server and may need as many as seven. Development or staging licenses do not have enough connections to support a typical class.
2. Estimate your anticipated media server requirements for both live webcasts and on-demand recordings. See [Deployment Planning and Bandwidth Requirements for Capture and Media Formats](#).
3. Install and configure your Wowza Media Server. See [Configure the Flash Media Streaming Server](#) and [Configure an External Wowza Media Server](#) for external configuration instructions.

4. Reconfigure the firewall ports for the [Wowza Media Server](#).
5. Review, and if necessary, edit the [Streaming Settings](#).



Accessing the Knowledge Base

You will need a customer portal login to access the Knowledge Base. Contact [Technical Support](#) if you need a login.

Optional - Distribute Live Webcasts with a CDN

Echo360 does not provide a CDN integration, but you can integrate your Wowza Media Server with certain CDNs, as described in this article: <http://www.wowza.com/partners.html>. Please also see the [push publishing article](#) on the Wowza Support forum. The RMTP solution described requires some custom configuration on the Wowza server.



Chat and Presence are not available on CDN networks

The chat and presence features for live webcasting are not available when using a CDN network to deliver content, and will produce inconsistent results when deploying Wowza servers for redundancy.

Enable Live Webcasting

Enabling live webcasting consists of the following phases:

1. Determine which sections might have live webcasting, and verify those sections occur in rooms containing a SafeCapture HD device.
2. [Configure product group defaults and security settings](#) for the section.
3. [Configure a schedule for the section](#). The section **must** be scheduled in a room containing a SafeCapture HD device.
4. [Review the Person and Section roles](#) for the section. Make sure you have a Teaching Assistant assigned to the section.
5. [Notify the students/participants](#) as necessary.

The sections below explain how live webcasting configuration differs from on-demand capture configuration.

Configure Product Group and Security Settings for the Section

If a section will typically use live webcasting as a normal part of its schedule, or there is a Special Events section dedicated to live webcasts of specific events, assign a live-enabled product group to those sections as the default. You can always select a different product group when scheduling the section if necessary.

Default Product Group selections include different bandwidth options, including low bandwidth streaming for mobile connections. Users can view live webcasts on mobile iOS devices, however, depending on which product group is selected for the webcast, a WiFi connection may be required for the event to stream smoothly.

If there are no existing live-enabled product groups that suit the needs of the section, you can configure a custom product group. See [Manage Product Groups](#) for details on product groups.

Security defaults for a section determine whether students need to log in to view the Echoes or live webcasts for a section, or if the section outputs, including any live webcasts, are available to anyone with access to the proper URL.

The portion of the [Edit Section page](#) that contains these settings is shown in the figure below.

Product Groups	
<i>These settings control the default product groups created for each capture. Change these settings on a section's or schedule's page to override the global defaults.</i>	
Product Group :	(CUSTOM) Live Only – Audio-Video-Display
Security Settings	
<i>These settings control the security.</i>	
Security Module :	Echo Viewers

1. Use the **Product Group** drop-down list to select a live-enabled product group. The selected product group is passed through to each schedule you generate for this section, however you can select a different product group for each schedule if appropriate.
2. Use the **Security Module** drop-down list to identify how users access captures for this section (either live webcasts or Echoes).
 - If you select Allow All, users are not required to log in to view any live webcasts or Echoes published for this section. This also means that the chat and presence capabilities for live webcast are also disabled, because these features require users to be identified (via their logins).
 - Selecting a different [Security Module](#) will require authentication (student login) in order to access the live webcasts or Echoes, and also allows use of the chat feature for live webcasts if you have the [Collaboration and Statistics Service](#) configured for your system.

Security Settings Apply to All Instances of the Section

Unlike the Product Group default, the Security Settings default applies to *all* instances of the section and cannot be changed for individual section schedules. Keep this in mind if you are configuring a section devoted to live webcasts of special events. You may need to configure different sections depending on whether the event webcasts are open to all users, or if some events will require student login.

For more information on adding and configuring sections, see [Manage Sections](#).

Configure a Schedule for a Live Webcast Section

All live webcasts must be scheduled. You can schedule a live webcast as late as 15 minutes before its start time.

Use the following steps for every section or event that needs live webcasting. The steps below assume you have already created a live-enabled product group as well as the section you must now schedule. See [Manage Product Groups](#) and [Add a Section](#) for more detailed information on those tasks.

1. Navigate to the Schedules page (**Schedule > Schedules**).
2. You can [create a new schedule](#) for the section OR edit an existing schedule to do live webcasting:
 - Select the section you want to schedule with live webcasting using the Term, Course and Section drop-down lists. Click **Add New**.
 - Find the section you want to edit to include live webcasting from the Schedules list. Hover your mouse over the section and click the **edit** button that appears.
3. Select or if necessary change the room where the section occurs. The room selected MUST have a SafeCapture HD capture appliance. Live can only occur in venues that have a SafeCapture HD.
4. Configure or review the Date and Time, Exclusions, Presenters, and Echo Defaults settings.
5. Review or edit the Product Groups selection for the section.
 - If you choose a product group for which live is required, the **Stream Live** field is checked, but grayed (dimmed) because there is no need to configure it.
 - If you choose a product group for which live is optional, the **Stream Live** field can be enabled or disabled as shown in the below figure. Enabling this check box generates a live webcast URL and

allows students to view the section in real time.

Product Groups	
<i>These settings control the default product groups created for each capture. Change these settings on a section's or schedule's page to override the global defaults.</i>	
Product Group :	<input type="text" value="A live optional config. Audio Only (Podcast). Balanced between file size & quality"/> Stream Live : <input checked="" type="checkbox"/>

6. Review the Echo Defaults section of the Schedule Details page. Be sure that the **Echoes Initially Unavailable** checkbox is NOT checked, as shown in the below figure. Uncheck the box if necessary.

Echo Defaults	
<i>This setting controls the default presentation state. Presentations can either be made Available or Unavailable by default. Change these settings on a section's or schedule's page to override the global defaults.</i>	
Echoes Initially Unavailable? :	<input type="checkbox"/>

7. Click **Save**.
8. Review the schedule settings. Be sure the **Stream Live** setting under Product Groups reads **Yes**.
9. Click **Activate** to [activate the schedule](#).
10. When the Schedule Details page refreshes after activation, notice, in the Course/Description section of the page, there is a **Next Live Event Link** entry followed by a URL, shown in the figure below. If appropriate, you can disseminate this link via email or by posting it on a website, to allow students to join the webcast. The EchoCenter page for the section also provides access to the webcast. For more information on providing access to the scheduled live webcast, see [Notify Students](#).

Course / Description	
Course :	SJG course with live event (SJG101-SJG section with live event) Fall 2011
Title :	SJG course with live event (SJG101-SJG section with live event) Fall 2011
Description :	
Next Live Event Link :	http://livedemoc.echo360.com:8080/ess/echo/presentation/e098234b-3ab7-4735-a8f6-80b987bde15e

Administer the Live Webcast

As an Administrator, you can [monitor](#) and [control](#) the live webcast as it is happening. The Instructor may also monitor and control the webcast through the [instructor interface for the live webcast](#).

Monitor the Live Webcast

You may want to monitor the SafeCapture HD inputs prior to the start of the live webcast, and monitor at least the initial few minutes of the presentation to make sure all of the sources are being webcast correctly. There are two ways to monitor a live webcast:

- Use the Monitor tab in the ESS interface.
- Use the Monitor tab in the SafeCapture HD appliance's user interface.

To monitor the webcast through the ESS interface:

1. In the ESS, navigate to **Monitor > Summary**.
2. The Capturing tab is active by default. If there is a current live webcast being captured, it is listed on the Capturing tab along with a **Monitor** link in the Streaming column, as shown in the below figure.

3. Click the **Monitor** link. This opens the EchoCenter page for the live webcast section in a new tab.
4. Click to join the live webcast in progress. The student view of the webcast appears, allowing you to see the output being viewed by students.

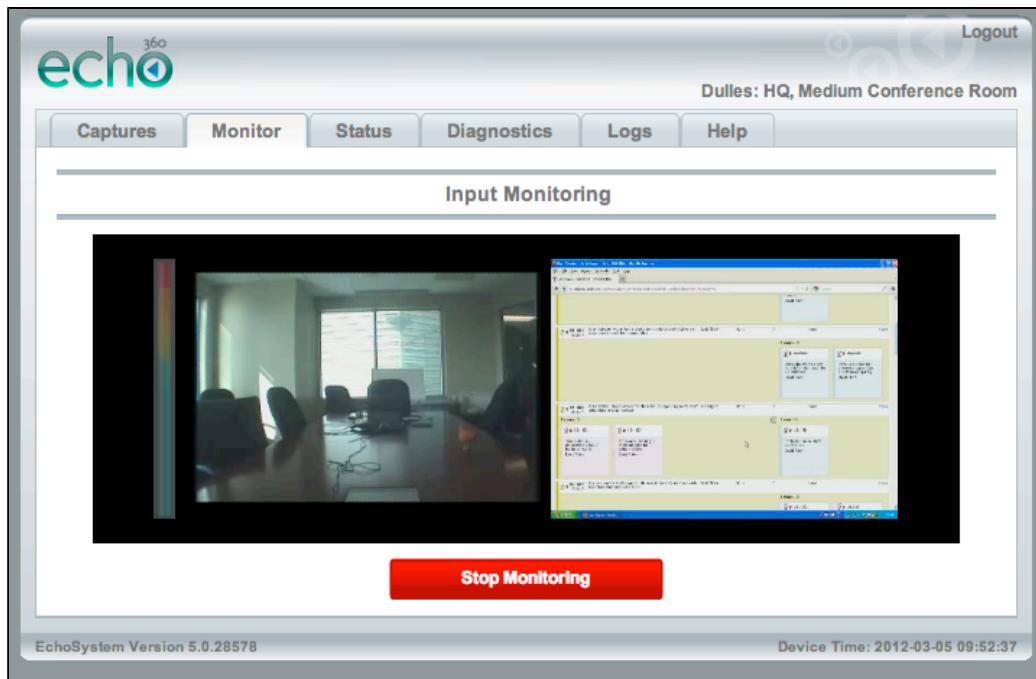
i Monitor Link Shows Student View

The Monitor link described above only shows the student view of a live webcast. While an Instructor may be in the habit of logging into the ESS to monitor a classroom capture, accessing a live webcast in this manner will not provide the [Presenter view of the webcast](#), which contains additional capture control features. Instructors should log into their EchoCenter pages and access live webcasts from there, to monitor and control live webcasts.

To monitor the webcast through the SafeCapture HD appliance interface:

Below is an abbreviated procedure for this task. See [Log In to the EchoSystem SafeCapture HD](#) for more detailed instructions.

1. In the ESS, navigate to **Configuration > Devices**.
2. Look for the SafeCapture HD device in the room where the live webcast is taking place. If necessary, use the Search drop-down lists to filter which devices are shown.
3. Click the **MAC address** for the device. The Device Details screen opens.
4. In the Device Details screen, click the Local IP Address. A new browser tab opens, connecting to the device.
5. When prompted, enter your Administrator user name and password. The interface to the device appears, with the Capture tab active by default.
6. Click the Monitor tab to activate it. One of two monitoring tasks will be available:
 - If the webcast has not yet started, click **Start Monitoring** to review the inputs being received for the webcast. This is the feed the students will see once the webcast begins.
 - If the webcast has begun, the Monitoring tab shows the inputs being broadcast. This is the feed that students are seeing. The figure below shows the Monitor tab of a SafeCapture HD device. Notice that the figure shows both a Video and a Display feed.



7. When finished, click **Stop Monitoring**. If the webcast has begun, simply close the browser.

Capture Control of the Live Webcast

Live webcasts can be controlled much the same way that Ad Hoc recordings are controlled. This includes the ability to pause, resume, extend, and stop a live webcast. In fact, you use the same interface features. If you have integrated the capture appliance with an AMX or Crestron system, there are no changes to enable capture control functionality through the capture device API.

In the same way that pausing an Ad Hoc recording suspends the capture of a classroom's activities, pausing a live webcast suspends the broadcast of the event or class until the webcast is resumed.

Pausing Suspends the Webcast

When a live webcast is paused, any actions or instructions in the venue during the pause are not broadcast and are not captured. Classroom students see what occurs. Remote students see a "pause" symbol on the screen and do not see what occurs. The Echo does not show what occurs.

Typically the Instructor or Teaching Assistant (TA) for a section controls the live webcast. However, as an Administrator, you may want to manipulate a live event if you are:

- Testing the configuration to be sure everything is set up correctly, or
- Managing a special event, such as a guest speaker, and want to control the event broadcast as it occurs

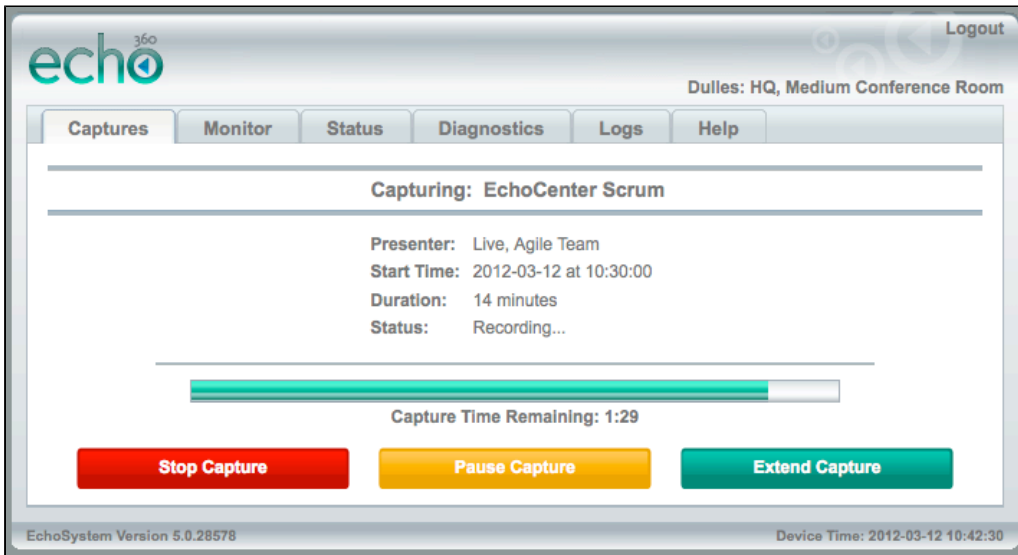
There are two ways to access the capture control features of a live webcast:

- Using the administrative access to the capture appliance
- Using the [instructor interface of the live webcast screen](#)

To use the administrative access method:

1. Navigate to **Configuration > Devices**.
2. Look for the SafeCapture HD device in the room where the live webcast is taking place. If necessary, use the Search drop-down lists to filter which devices are shown.

3. Click the **MAC address** for the device. The Device Details screen opens.
4. In the Device Details screen, click the **Local IP Address**. A new browser tab opens, connecting to the device.
5. When prompted, enter your Administrator user name and password. The interface to the device appears, with the Capture tab active by default, shown in the figure below.



6. Use the **Stop Capture**, **Pause Capture**, and **Extend Capture** buttons as follows to manipulate the live webcast:
 - **Stop Capture** - Ends the live webcast. Note that you cannot restart a webcast; you must create a new one if you stop the webcast by mistake.
 - **Pause Capture** - Temporarily suspends the capture or broadcast of events in the venue. Useful for short breaks in the event or for time taken to set up a classroom activity that may not need to be captured or broadcast. Once paused, the button changes to **Resume Capture**.
 - **Extend Capture** - Allows you to add time to the scheduled event, if necessary. Note that you cannot extend the time of a webcast past the start time of the next scheduled capture for the device.

Live Webcasting FAQs for Admins

In this section:

- [What do I need for Live Webcasting?](#)
- [Are there limitations on where students can view Live Webcasts?](#)
- [Are there browser limitations for Live Webcasting?](#)
- [Can Live Webcasts be viewed on a Mobile device?](#)
- [Can students participate in Live Webcasts?](#)
- [Can I use Live Webcasting for special events?](#)
- [What kind of network usage can I expect for each Live Webcast?](#)
- [How does webcasting impact my Wowza server?](#)
- [Can I have Echo360 host my Live Webcasting?](#)

What do I need for Live Webcasting?

In order to enable live webcasting, you need to have the following:

- EchoSystem 5.1 or above

- A room or venue where an [EchoSystem SafeCapture HD](#) is installed and [licensed](#)
- [Wowza Media Server](#) v3.5 or higher as the Flash media streaming server for live content. EchoSystem 5.5 requires Wowza v3.5, 3.6 or 4.0.

Along with those items, you need to be sure the you have completed the proper [configuration steps associated with live webcasting](#).

Are there limitations on where students can view Live Webcasts?

Regardless of their location, individuals can view these live events from a personal computer (PC) or Mac with a broadband Internet connection of at least 515 kbps (kilobits per second) for audio and video streaming. Streaming audio with dual display, or audio with video and display requires 980-1100 kbps for a quality viewing experience.

Are there browser limitations for Live Webcasting?

The user just needs a PC or Mac, Internet connectivity and a modern browser with Flash. Firefox, Internet Explorer, Chrome, and Safari are all supported.

Can Live Webcasts be viewed on a Mobile device?

Echo's live webcasting feature is designed primarily for multimedia streaming to a PC or Mac via a broadband network connection. However Echo360 supports the viewing of Live webcasts on iOS devices running iOS 5 and above. There are [additional steps you may need to perform](#) on the Wowza media server to allow for live streaming to iOS devices.

Keep in mind, however, that mobile viewing is subject to the following limitations:

- Viewers will only see the Primary Display (e.g., what is featured on a computer screen during the presentation) OR the Video for the event. They will not see both.
- Viewers may require a broadband (wifi) connection for the event to stream smoothly.

Can students participate in Live Webcasts?

If students are required to log in to the live webcasts (as controlled by the configuration of the Section), and you have registered your ESS with Echo360's [Collaboration and Statistics service](#), the live webcast will have a chat feature that allows students to participate via text-based chat. If the chat feature is not available or you would prefer voice communication, an Instructor or Presenter can initiate an optional audio bridge (not provided by Echo360). Using an audio bridge can significantly augment Echo's live webcasting, but note that there is a small but perceptible delay between the audio bridge and the webcast audio and video feeds. Because of this delay, if using an audio bridge, the audio feed from the webcast should be muted to avoid confusion.

Can I use Live Webcasting for special events?

While Echo360's live webcasting is designed for remote student access to a lecture, it can also be used to broadcast a special event (e.g., a guest speaker) to a broader audience both inside and outside of your institution.

It is important to note this capability is not a broadcast quality distribution platform -- it webcasts a unique stream or combination of streams for each active viewer. Therefore, bandwidth limitations between the institution's streaming server, the public Internet, and "the last mile" to the viewer can cause performance issues. The bandwidth for various product combinations is provided below. It is important to confirm that your institution has the necessary network configuration to support anticipated load for streaming special events, especially if it is being broadcast to a large and geographically diverse audience.

What kind of network usage can I expect for each Live Webcast?

The below table lists the specifications for live streams based on product selection. In the table and examples that follow, kbps=kilobits per second; fps = frames per second; Mbps = megabits per second.

Both live webcasts and on-demand recordings share these specifications:

Stream Content	Audio	Display	Video	Second Display	Stream to Wowza	Stream per Viewer from Wowza
Audio + Display	AAC, 128 kbps stereo	H.264, VBR 720 px high 15 fps 475 kbps	–	–	~605 kbps	~ 630 kbps
Audio + Video	AAC, 128 kbps stereo	–	H.264, VBR 480 px high 15 fps / 12.5 fps 365 kbps	–	~495 kbps	~515 kbps
Audio + Display + Video	AAC, 128 kbps stereo	H.264, VBR 720 px high 15 fps 475 kbps	H.264, VBR 480 px high 15fps / 12.5 fps 365 kbps	–	~970 kbps	~980 kbps
Audio + Display + Display	AAC, 128 kbps stereo	H.264, VBR 720 px high 15 fps 475 kbps	–	H.264, VBR 720 px high 15 fps 475 kbps	~1080 kbps	~1100 kbps

The following example provides real-world calculations for bandwidth usage:

Twenty students are viewing a webcast that includes audio and a presentation display from the classroom's computer.

- Bandwidth from SafeCapture HD to the Wowza Media Server: ~605 kbps (475 kbps for display + 128 kbps for audio)
- Bandwidth from the Wowza Media Server to the students: 20 students x 630 kbps = 12,600 kbps (~12.60 Mbps)
- **Total Bandwidth Required** for stream end-to-end: 605 kbps + 12,600 kbps = 13,205 (~13.25 Mbps)

How does webcasting impact my Wowza server?

It is important to recognize that a live webcast uses streaming server resources differently than an on-demand recording, and so benefits from different improvements to the server hardware.

The items for each type of content delivery are in listed below in order of most important to least important:

On-Demand content	Live Webcasting content
-------------------	-------------------------

1. Disk Size/Storage
2. Ram
3. Network
4. CPU

1. Network
2. CPU
3. Ram
4. Disk Size/Storage

Can I have Echo360 host my Live Webcasting?

Yes, but only in and for North American customers. However, there are important considerations when a customer has Echo360 host their EchoSystem and uses live webcasting.

First, live streaming will increase network traffic and volume—which are costs born by the university. Just like streaming recorded content, streaming live content drives usage-based streaming fees.

The fees for both live and on-demand streaming are based on output bundles. There is no premium pricing for live over on-demand streaming—both are based on the volume out. If a customer is likely to use live streaming infrequently, then the incremental costs will be small relative to the standard on-demand streaming costs. If the use case for live streaming is to support a large distance learning program, then Echo360 must work with the customer to better estimate the costs under this use case.

Manage the EchoCenter

In this section:

- [What is EchoCenter?](#)
- [Deploy the EchoCenter](#)
- [Best Practice - Deploy the Collaboration Service Version](#)
- [Instructor and Student EchoCenter Pages](#)
- [Overview on Views and EchoCenter Analytics](#)
- [Standard EchoCenter Pages](#)
- [Train Academic Staff to Use EchoCenter Pages](#)

What is EchoCenter?

EchoCenter is a convenient, intuitive dashboard for both students and Instructors. On this single page, users find:

- **All course materials for a section** (Echoes, media imports, and Personal Capture recordings), grouped together by date and lecture. This organization matches the syllabus and the mental model of students and Instructors
- For **students**: Access to discussions and course notes (bookmarks).
- For **students and Instructors**: Access to live webcasts (if offered by the section).
- For **Instructors**: All student features plus access to student usage data ("teaching aids"), engagement analytics, and Echo-specific heat maps.

Deploying the EchoCenter helps Instructors get the most out the university's investment in the Echo360 blended learning solution. Although you might still want to publish individual links of Echoes and supplemental materials (and this method, "individual link publishing" is still supported), the EchoCenter page is automatically created for each section and offers a better experience.

EchoSystem also provides the ability to [embed the EchoPlayer](#) for individual echoes into external websites or an LMS page, allowing users to view the echo with the full EchoPlayer functionality.

See [Deploy the EchoCenter](#) below for details on how to implement the EchoCenter.

See [Train Academic Staff to Use EchoCenter Pages](#) below for suggestions on how to help Academic Staff get the most value from this feature.

If You Use RSS Feeds

If you use RSS feeds with integrations, consider using an EchoCenter page instead. It provides a much better interface for students and instructors. You should still use RSS feeds for podcasting and iTunes U.

Deploy the EchoCenter

This procedure shows how to deploy the Collaboration Service version of the EchoCenter, which we recommend. See [Best Practice - Deploy the Collaboration Service Version](#) for details of the advantages offered by this version.

Follow these steps:

1. **Required:** Ensure that you are subscribed to the Collaboration Service.
2. **Required:** Configure the appropriate authorization method.
 - [LDAP Authentication](#) (if you are not integrating with BlackBoard or Moodle). Be sure to configure LDAP, ensuring that students and Instructors are correctly identified. If you do not, Instructors see the [standard EchoCenter page](#) and do not see valuable teaching aids. See [Enable LDAP Authentication](#).
 - Seamless login (if you are integrating with BlackBoard or Moodle). For Blackboard, see [Blackboard Learning Management System Enterprise \(7.3-9.1\)](#). For Moodle, see [Moodle - EchoCenter Publishing](#).
3. **Required:** If you use BlackBoard or Moodle, you can publish EchoCenter pages directly to your learning management system (LMS). The EchoCenter page appears on the Blackboard or Moodle page for the section. See:
 - [Blackboard Learning Management System Enterprise 9.1 - EchoCenter Publishing](#)
 - [Moodle - EchoCenter Publishing](#)
4. **Optional:** If you publish to a different LMS and want seamless integration between it and the EchoCenter, contact [Echo360 Client Services](#) for information.
5. **Required:** Configure EchoCenter settings in the parent or child organization. You may want to configure other settings as well. See [Configure the EchoCenter and Other Settings in the Parent or Child Organization](#).
6. **Optional:** Customize the user experience via ESS configurations. You can, for example, add your school's logo to the EchoCenter pages. See [Enable EchoCenter Pages in the ESS](#).
7. **Optional:** If you use an LMS other than BlackBoard or Moodle, you can embed the EchoCenter page URLs in that system. See [Enable EchoCenter Pages in a Learning Management System](#).

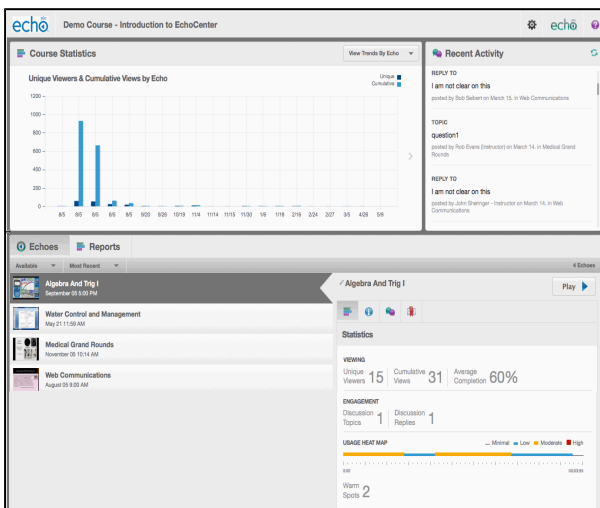
Best Practice - Deploy the Collaboration Service Version

Although you can deploy either the standard or Collaboration Service versions of EchoCenter pages, we recommend that you deploy the Collaboration Service version, which has optimized views for both Instructors and students. In addition, if you are integrating a [Lecture Tools system with EchoSystem](#), you must use collaboration services and set up user authentication for EchoCenter access.

The **Instructor view** helps Instructors teach better by offering several teaching aids:

- Instructors can initiate **discussions** on key topics or participate in student discussions
- Course statistics show **viewing trends** by week and by Echo.
- Viewing statistics for a **specific Echo** show the number of viewers and unique viewers.

- **Engagement** statistics show the number and depth of discussions.
- **Heat maps** give Instructors insight into student reaction to a specific lecture.
- **Student usage reports** show student engagement in the course.



The **student view** helps students learn better by supporting discussions and bookmarks.

- **Discussions** offer an interactive way for students to engage with their Instructors, with each other, and with the material.
- **Bookmarks** in the EchoPlayer tag key moments in the lecture, a timesaver when students review an Echo when preparing for an examination. In the EchoCenter, a student can scan the list of **Course Bookmarks** to get a quick summary of those key moments.



The unauthenticated view has none of these helpful features, as shown below:



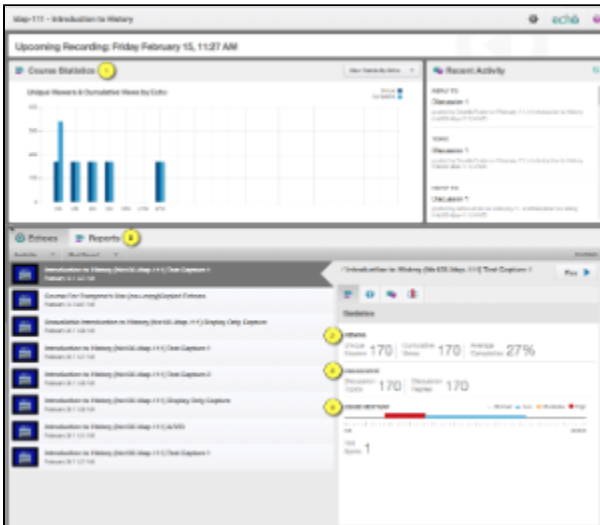
Instructor and Student EchoCenter Pages

When you deploy the Collaboration Service version of EchoCenter and a user's credentials are authenticated, there are two different views of the EchoCenter page:

- The Instructor view is visible to Instructors, Administrators, and Teaching Assistants
- The student view is visible to students, Student Presenters, and Guest Presenters

The Instructor View

The Instructor view looks like the figure shown below:



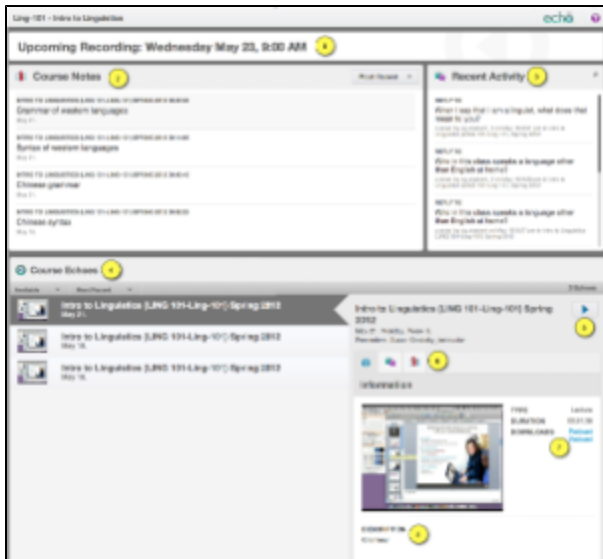
The Instructor view offers most of the functionality of the student view, lacking only the course notes (bookmarks) pane. The Instructor can also see several **teaching aids**:

1. **Course statistics** show viewing trends by week and by Echo.
2. **Viewing** statistics for a specific Echo show the number of viewers and unique viewers. This helps an Instructor gauge student interest in a particular Echo.
3. **Engagement** statistics show the number and depth of discussions. This gives an Instructor additional insight into reaction to a particular Echo.
4. A **heat map** of a specific Echo shows specific topics within the lecture where there is a significant discussion, class-wide disagreement, or confusion.
5. **Student engagement reports** give detailed statistics on each student's participation.

See [EchoCenter for Academic Staff](#) for details on the Instructor view.

The Student View

Students do not see the teaching aids in [the Instructor view](#). The student view of a Collaboration Service page looks like the figure shown below:



From this page students can:

1. See a **notice** of the next recording or join a **live webcast** if one is scheduled. The join button appears shortly before the scheduled webcast time. See [Live Webcasting for Students](#).
2. See **course notes (bookmarks)** they have added to Echoes. Clicking on the course note (bookmark) opens the Echo at the relevant scene.
3. View recent **discussions** and join the discussion. Clicking on the discussion link opens the Echo at the relevant scene.

Why Aren't There Links to the Most Recent Echo Here?

The Recent Activity section lists the most recent discussions that occurred in **any** Echo for this section. If the most recent Echo did not elicit any discussion, no discussion link is listed. Discussions sometimes occur as students review the Echo. As students submit discussions topics, they are listed in this pane.

4. View the list of **available Echoes** and supplemental materials (media imports or Personal Capture recordings) or other Echoes.
5. **Launch** Echoes.
6. Select tab.
7. Download the **podcast or vodcast** for the Echo.
8. See the **description** of the Echo entered by the Instructor (see [Train Instructors to Customize Descriptions for Specific Echoes](#)).

See [EchoCenter for Students](#) for details on the student view.

Overview on Views and EchoCenter Analytics

A view is defined as any continuous viewing for a given user and a given presentation with a 10 minute timeout. This means that if the user comes back into the presentation within 10 minutes of the last time they viewed that presentation HEMS will log that as a single view.

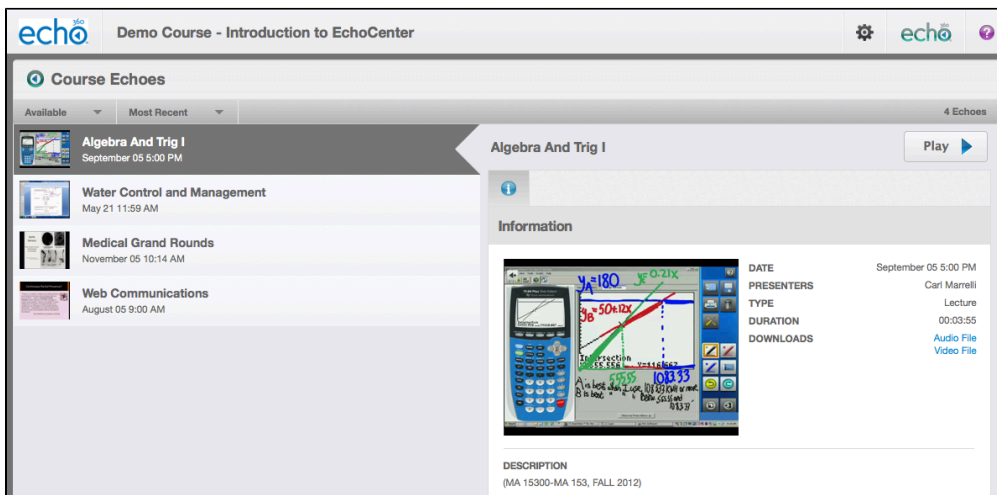
Usage data (heatmap data) is sent once every few minutes to the server as the player is running. If the session does not exist HEMS registers the new session and logs the view. These view numbers are now used for all calculations returned from HEMS for view stats.

HEMS divides the presentations up into segments for analytic reasons and keeps track of how many times users cross segment boundaries. To get the average completion, HEMS returns to EchoCenter the total number of segments viewed divided by the number of cumulative views of the presentation. EchoCenter then uses that number to calculate the % viewed, based off the total number of segments for the presentation.

The accuracy of this is highly dependent on the length of the presentation. The EchoPlayer does not send data up to HEMS on every segment viewed. It accumulates them and sends data on timed intervals just like google analytics does. The timed interval is dependent on the length of the presentation. For presentations less than 50 minutes it only sends data once every 1.5 minutes, with segments at 15 second intervals. So lets say, the presentation is only 2 minutes long and the user views the 2 minutes and then closes the browser. In this case, only the first set of stat data would be sent by the EchoPlayer and therefore, even though the user watched the entire presentation, the second chunk of data was never sent and EchoCenter will only see about 50% of the presentation as viewed.

Standard EchoCenter Pages

When a user's credentials are not authenticated, the user sees the standard version of the EchoCenter page, as shown in the figure below:



The standard EchoCenter page lacks useful features for both students and Instructors:

- Students **do not see** discussions or course notes (bookmarks)
- Instructors **do not see** discussions, course statistics, viewing statistics, engagement statistics, or heat maps

Best Practice: Deploy the Collaboration Service Version

The Collaboration Service version has optimized views for both Instructors and students. See [Deploy the EchoCenter](#).

Train Academic Staff to Use EchoCenter Pages

You will need to show Academic Staff how to:

- **Access** their EchoCenter pages. Academic Staff receive EchoCenter links in different ways, depending on your configuration. You can:
 - Integrate the EchoCenter to Blackboard or Moodle. See [Blackboard Learning Management System Enterprise 9.1 - EchoCenter Publishing](#) or [Moodle - EchoCenter Publishing](#).
 - Include the link in the email announcing that media is ready to view.
 - Show Academic Staff how to navigate to the EchoCenter page from the ESS user interface. Clicking

on an Echo opens the Echo Details page, where the EchoCenter link is shown.

- **Understand** the information on an EchoCenter page.
 - Academic Staff members can click on an embedded help button. They will see the instructions shown on the [EchoCenter for Academic Staff](#) page.
 - You can also post the [EchoCenter for Academic Staff](#) page in an easily accessible location and urge Academic Staff to review it.
 - You can give a brief "guided tour" of a typical EchoCenter page.
- **Customize** descriptions for specific Echoes. Academic Staff have had this ability for some time. Now students see the description on their EchoCenter pages, offering an opportunity to orient students as they view an Echo. See [Improve Learning - Add Descriptions for Each Echo](#).

Enable EchoCenter Pages in a Learning Management System

In this section:

- [Overview](#)
- [Copy-Paste URLs and Embed Codes](#)
- [The Mass Export Method](#)

Overview

If you use a learning management system (LMS) that supports EchoCenter publishing, such as [Blackboard](#) or [Moodle](#), use that method to enable EchoCenter pages.

EchoCenter Publishing Required with BlackBoard

You cannot use the copy-paste method described in this section to embed EchoCenter codes to a BlackBoard page. You **can** use this method with Moodle, though we recommend using [EchoCenter publishing](#) instead.

If you use an LMS other than BlackBoard or Moodle, you can still add EchoCenter page URLs on your LMS course page using either of two methods:

- The [copy-paste method](#)
- The [mass export method](#)

In addition to enabling EchoCenter pages into an LMS, admins or instructors can also embed the EchoPlayer for an echo onto an LMS page or other external site. See [Embedding the EchoPlayer](#) for additional information.

Copy-Paste URLs and Embed Codes

You can copy-paste:


- Just the URL
- The URL with embedded code that formats it for a course page

Do this once per section per academic term.

1. Navigate to the section details page.
 - a. Navigate to **Schedule > Courses**.
 - b. Click on the course link.
 - c. Click on the section link. The section details page appears, shown in the figure below.

Courses > Course Details > Section Details

Section Details – SJG course (SJG101-Spring 2011) echo.May 2011

EchoCenter Page :  URL: <http://ec2-50-17-99-228.compute-1.amazonaws.com:8080/ess/portal/section/Section%201>

Embed Code: `<iframe width="100%" height="100%" frameborder="0" src="http`

2. Do one of the following:
 - Copy just the URL
 - Copy all of the text in the Embed Code field
3. Paste either the URL or the Embed Code field contents into your LMS page for the section.

The Mass Export Method

You can use this method to export the URLs, but not the embed code.

See [Example - Post EchoCenter Page URLs to an LMS](#).

Enable EchoCenter Pages in the ESS

In this section:

- [Overview](#)
- [Configure the EchoCenter and Other Settings in the Parent or Child Organization](#)
- [Configure Settings in Each Section](#)
- [Train Instructors to Customize Descriptions for Specific Echoes](#)

Overview

Enabling EchoCenter pages consists of one required phase and two optional phases.

1. **Required:** [Configure the EchoCenter in the parent or child organization](#). This is done by the System Administrator, the parent organization Administrator, or a child organization Administrator. See EchoCenter.
 - If you configure the parent organization, settings are inherited by child organizations and sections
 - If you configure a child organization, settings are inherited by sections
2. **Optional:** Customize some aspects of the EchoCenter page by [configuring settings in each section](#). This can be done by an Administrator or a Scheduler. You can customize all sections or just some. You can do these customizations when you [add the section](#).
3. **Optional:** [Train Instructors](#) to customize the descriptions for individual Echoes.

Configure the EchoCenter and Other Settings in the Parent or Child Organization

1. Display the Organization Details page for either the parent or child organization.
 - a. Navigate to **Configuration > Organizations**.
 - b. Select the organization.
2. Configure [EchoCenter settings](#). These settings control many aspects of the appearance of the EchoCenter page.
3. Implement either standard or Collaboration Service EchoCenter pages by configuring the **Security Module** setting in the **Security Settings** group, as shown in the figure below.
 - a. To implement standard EchoCenter pages, select **Allow All**.
 - b. To implement Collaboration Service EchoCenter pages, select either LDAP or seamless login. See [Se](#)

[curity.](#)

4. Optionally, add a logo. The logo that appears on the EchoCenter page is specified in the [Player Logo Image setting](#) in the **Branding** group.
5. Click **Save** to close the Organization Details page.
6. After you complete this configuration, EchoCenter pages will appear automatically for each section.
 - You, the System or Organization Administrator, will see the URL for each EchoCenter page on the Section Details page, as shown in the following figure:

- These URLs are different from the URLs for individual Echoes, which appear on the Echo Details pages.

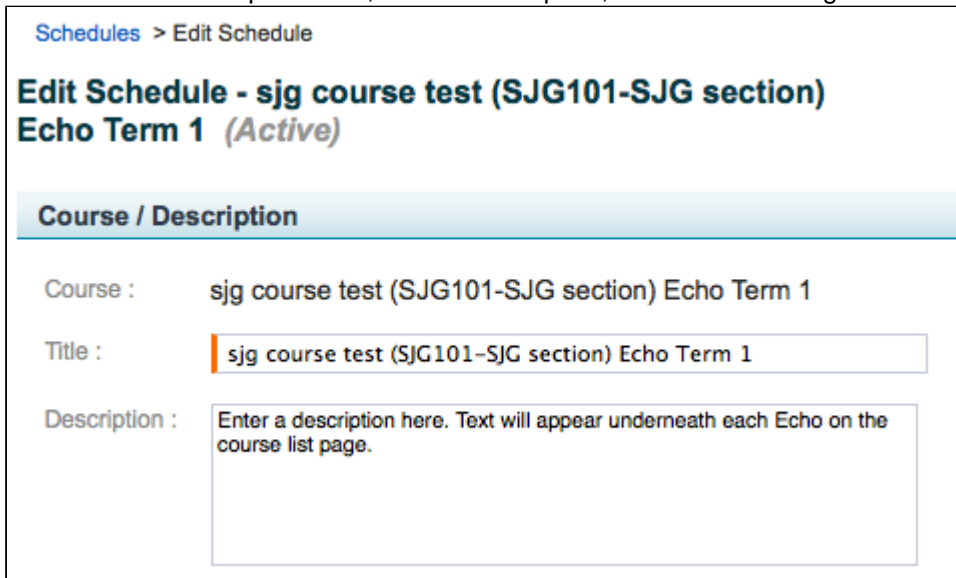
7. Deploy the URLs to students and faculty using any of these methods:
 - If you use Blackboard Learn as a publisher and have [enabled EchoCenter publishing](#), URLs appear on the Blackboard pages.
 - If you use Moodle and a publisher and have [enabled EchoCenter publishing](#), URLs appear on the Moodle pages.
 - If you use another publisher, you can enable EchoCenter pages by [manually copy pasting or embedding URLs](#) on the EchoCenter pages.
 - If you send notifications via e-mail, continue to use that method. The EchoCenter page links are included in the emails.

Configure Settings in Each Section

You can customize all sections or just some. This customization can be done when you [add the section](#).

1. Display the Section Details page for the section.
 - a. Navigate to **Schedule > Courses**.
 - b. Click on the course name to display the **Course Details** page.
 - c. Click on the section name to display the **Section Details** page.
2. Except for the **External System Id** fields, all of the EchoCenter settings shown for the section are inherited from the organization. Customize them for the section as necessary. See [EchoCenter settings for the organization](#) for details on each setting.
3. The **External System Id** fields (the last two EchoCenter settings) are **not** inherited from the organization. They appear only here, on the section page. You may want to customize these fields. See [External System IDs](#).
4. Click **Done** to close the **Section Details** page.
5. Enter a description for the Echoes. The text will appear underneath each Echo posted to the EchoCenter page.
 - a. Navigate to **Schedule > Schedules** and edit the schedule for the section.

- b. In the Course/Description area, enter a description, as shown in the figure below.



Schedules > Edit Schedule

**Edit Schedule - sjg course test (SJG101-SJG section)
Echo Term 1 (Active)**

Course / Description

Course : sjg course test (SJG101-SJG section) Echo Term 1

Title : sjg course test (SJG101-SJG section) Echo Term 1

Description : Enter a description here. Text will appear underneath each Echo on the course list page.

- c. Click **Save** to close the Schedule page.
- d. After the next scheduled capture occurs, check the description for the Echo. It should reflect the changes you made.

Train Instructors to Customize Descriptions for Specific Echoes

You may have added a description for the section in the section's schedule. This description appears in the Information tab for each Echo posted to the EchoCenter page. However, when the same description appears for each Echo, students cannot easily find a specific Echo.

✓ Best Practice: Customize Echo Descriptions

Show Instructors that it is quick and easy to customize the description for a specific Echo. The Instructor can reinforce a key concept from the lecture while helping a student to find and replay a specific Echo.

Instructions on customizing descriptions for each Echo are included in the documentation for Academic Staff. You can point Instructors to these instructions or demonstrate the procedure. See [Improve Learning - Add Descriptions for Each Echo](#).

Enable Engagement Analytics

- [Overview](#)
- [Enable Section Security](#)
- [Put Students Names in the ESS Internal Database](#)

Overview

Engagement analytics are data on student activities. These include detailed data on student viewing of Echoes and participation in discussions. Engagement analytics are typically conveyed to Academic Staff via student usage reports, accessed via the EchoCenter page for a section (see [Student Usage Reports - Are Students Engaged?](#) for details). Engagement analytics can also be exported and included in a broader analysis.

Enabling engagement analytics requires this configuration:

- **Secured section.** The section must be secured in some way. The individual student accessing the section must be identified so his activity can be compiled in a report. See [Enable Section Security](#) below for details on security methods you can use.
- **Student names.** Student names must be in a database so the ESS can identify an individual student when he logs in. If you are using a security method that includes a name database (LDAP, CAS, Shibboleth, an LMS with seamless login), student names are already in an accessible database and you do not have to create one. If you are not using such a security method, you will have to enrich the ESS internal database with student names. See [Put Students Names in a Database](#) below.

When this configuration is in place, engagement analytics can be collected because the following process takes place:

1. The student logs in to an Echo for the first time.
2. The ESS gathers identification data (the student's first name, last name, and email address) from a database. This can be a learning management system (LMS), LDAP, or the internal ESS database.
3. The ESS marks the student as an Active Student.
4. The ESS compiles engagement analytics for the student, using the identification data gathered from the source system.
5. The ESS formats these engagement analytics into student usage reports on the EchoCenter page for the section. See [Student Usage Reports - Are Students Engaged?](#)

Enable Section Security

You can enable security for the section in a variety of ways. See [Security Settings](#) for a general discussion of security settings. The section security setting is usually inherited from the organization security setting.

- Implement CAS or Shibboleth with the Authentication Required security module. You do not need to explicitly put student names in a database because student names are gathered from the CAS or Shibboleth databases. See [CAS and Shibboleth Authentication](#).
- Implement an LDAP security module. Student names are gathered from the LDAP database. See [LDAP Authentication](#).
- Implement seamless login with your learning management system (LMS) and implement the Authentication Required security module. Student names are gathered from the LMS. See [Blackboard Learning Management System Enterprise 7.3-9.1 - Individual Link Publishing](#).
- Import all users and passwords into the internal ESS database and implement the Authentication Required security module. You will have to put student names in the internal ESS database. See [Put Students Names in a Database](#).

Be aware of these special cases and side effects:

- **CAS as source system.** The ESS collects only the student username from CAS. This means that engagement analytics show the username, not the student's actual name. If you want to show the actual name, you can export the user list for the section as a .csv file, enrich it with the actual name data, then re-import it. See [Import and Export Objects](#) for a general discussion of this technique. See [Import Users](#) for specifics on user names.
- **A disengaged student is not listed on student usage report.** If the student never logs in to view an Echo, the student name is not gathered and does not appear on the student usage report.
- **In some cases, an engaged student is not listed** on the student usage report. If a student downloads Echoes rather than streaming them from the ESS, engagement analytics are not collected. See [Students Who Download Echoes Have Skewed Data](#). You may need to explain this case to Academic Staff.

Put Students Names in the ESS Internal Database

If you are using a security method that includes a name database, you can skip this step. If you do not, or if you have problems with the name database, you can import students manually. You can use any of these methods to do this:

- Import students using a .csv file
- Manually add individual students

See [Manage Student Users](#) for details.

Manage Product Groups

In this section:

- [Overview](#)
- [About Default Product Groups](#)
- [Assign a Product Group to a Section or Schedule](#)
- [Add a Custom Product Group](#)
- [View Product Group Details](#)
- [Edit a Product Group](#)
- [Copy a Product Group](#)
- [Filter the List of Product Groups](#)
- [Delete a Product Group](#)

Overview

Product groups simplify scheduling because they are ready-made "bundles" of products and output qualities. Product groups simplify the scheduling process because they allow a Scheduler to choose a ready-made product group instead of specifying individual products. You can make the process even easier for the Scheduler by giving a product group a "friendly name" that suggests its function:

- "Use for math classes"
- "Use for special events in Everest Hall"
- "Use for med school procedure demonstrations"

You may have up to three different types of product groups:

- **Default product groups.** After you install or upgrade to EchoSystem 4.0 or higher, you will see the default product groups.
- **System-generated product groups.** If you upgrade to EchoSystem 4.0 or higher from an earlier release, you may have additional product groups. These have the term "Upgraded product group" in their names. During the upgrade process, the EchoSystem Server (ESS) analyzes your existing schedules and prepares additional product groups that support the products you have requested most often.
- **Custom product groups.** You, as the System Administrator or Organization Administrator, may decide to create custom product groups.

A product group owned by the parent organization is automatically shared with all child organizations. A product group owned by a child organization cannot be shared with other child organizations.

About Default Product Groups

Default product groups are included with a new or upgraded installation.

- The Product Groups page, shown in the below figure, identifies capture appliances and applications

supported by a particular product group.

- The **Live** column indicates whether a product group supports live webcasting. A **Y** indicates that the product group always supports live webcasting. An **O** indicates that live webcasting is optionally provisioned for the product group. See [Add a Custom Product Group](#) for details.
- The descriptions discuss products supported, bandwidth, quality, and typical use cases.

Name	SafeCapture HD	Capture Appliance	Capture Software	Ad Hoc	PCAP	Media Import	Live	Description
(CUSTOM) LIVE always on - Audio/Display	Y						Y	
(CUSTOM) LIVE always on - Audio/Display/Display	Y						Y	
(CUSTOM) LIVE always on - Audio/Video	Y						Y	
(CUSTOM) LIVE always on - Audio/Video/Display	Y						Y	
A live optional config. Audio Only (Podcast). Balanced between file size & quality	Y						O	Shows live optional configuration. This product group is designed for audio podcast creation for Media Import uploads.
A live required config. Display/Video (Podcast/Vodcast/EchoPlayer). Balanced b/w file size	Y						Y	A configuration with live required. This product group is designed for low bandwidth and low quality capture needs. It creates mobile and Echo Player formats including display and video capture. It supports both the SafeCapture HD and 1st generation appliance.
Audio Only (Podcast). Balanced between file size & quality	Y	Y	Y	Y	Y	Y		This product group is designed for audio podcast creation for Media Import uploads.
Display Only (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality	Y	Y	Y	Y	Y			This product group is designed for all bandwidth options. It creates mobile and Echo Player formats for display only capture. It supports both the SafeCapture HD and 1st generation appliance as well as all software capture devices.
Display Only (Podcast/Vodcast/EchoPlayer). Optimized for detailed PowerPoint presentation	Y		Y		Y			This product group is designed for high speed bandwidth options. It creates mobile and Echo Player formats at high quality for display only captures.
Display Only (Podcast/Vodcast/EchoPlayer). Optimized for high motion	Y					Y		This product group is designed for all bandwidth options. It creates mobile and Echo Player formats for Media Import uploads of digitized display captures.
Display/Video (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality	Y	Y	Y	Y	Y			This product group is designed for low bandwidth and low quality capture needs. It creates mobile and Echo Player formats including display and video capture. It supports both the SafeCapture HD and 1st generation appliance.
Display/Video (Podcast/Vodcast/EchoPlayer). Optimized for quality-full motion video	Y						O	This product group is designed for all bandwidth options. It creates mobile and Echo Player formats at good quality for blended display and video capture.
Dual Display (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality	Y							This product group is designed for high speed bandwidth options. It creates mobile and Echo Player formats at good quality for dual display captures. Typical use cases are for classroom with dual projector systems where two display sources need to be captured simultaneously.
Dual Display (Podcast/Vodcast/EchoPlayer). Optimized for file size & bandwidth	Y			Y				This product group is designed for high speed bandwidth options. It creates mobile and Echo Player formats at good quality for dual display captures. Typical use cases are for classroom with dual projector systems where two display sources need to be captured simultaneously.
Video Only (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality	Y	Y	Y	Y				This product group is designed for all bandwidth options. It creates mobile and Echo Player formats for video only capture. It supports both the SafeCapture HD and 1st generation appliance.
Video Only (Podcast/Vodcast/EchoPlayer). Optimized for presenter capture quality (BC)	Y							This product group is designed for high speed bandwidth options. It creates mobile and Echo Player formats at excellent quality for HD video. Typical use cases are for Chalkboard Capture or High Definition/Blended Procedural demonstrations.
Video Only (Podcast/Vodcast/EchoPlayer). Optimized for presenter/procedures capture	Y		Y			Y		This product group is designed for all bandwidth options. It creates mobile and Echo Player formats for Media Import uploads of digitized video captures.

Assign a Product Group to a Section or Schedule

When you add or edit a section or schedule, you assign a product group. When you do this:

- Review the [product group details](#).
- Understand that the product groups available for selection are determined by what device is in the venue. For example:
 - If the venue has an EchoSystem Capture Appliance, you will not be able to select a product group with "highest quality video" because this is not supported by the device.
 - If you are configuring a section for live webcasting, the room *must* contain an EchoSystem SafeCapture HD device. If it does not, you cannot select either a "live only" product group, nor can you enable the Stream Live check box.

The product group you select determines the output generated by the capture, which in turn is determined by the available input devices. Select a product group that is compatible with both the input capabilities of the venue and the output desired for the section or schedule.

Add a Custom Product Group

Keeping custom product groups to a minimum makes it easier to manage your EchoSystem. Before creating a custom product group, review the existing product groups to see if one is sufficient. Consider:

- The content (audio, video, display) you want to capture
- The quality (high, medium, low) you want to capture
- The products you want to support
- The devices that support those products

If you determine that a custom product group is needed, you can add a new group or [copy](#) and [edit](#) an existing group.

1. Navigate to **Configuration > Product Groups**. The Product Groups page appears.
2. Click **Add**. The Add New Product Group page appears.
3. Complete the Product Group Information section.
 - a. Enter a name for the new product group. You might want to specify a "friendly name" ("Use for math classes") that will help a Scheduler choose the product group for particular sections or schedules.
 - b. Optionally, enter a description. You might want to include details that will help a Scheduler choose the product group for particular sections or schedules ("Use for classes in Room 767").
 - c. Select the parent or child organization to which this product group belongs.
 - d. Review the Estimated Storage information.
4. In the Product Details section, select the Podcast, Vodcast, and EchoPlayer options from the drop-down lists.
 - a. Select the quality for each output option.
 - b. Review the suggested use cases and storage/bandwidth estimates for the output option and quality you selected. For on-demand profiles, the numbers are storage estimates. For live profiles, the numbers are estimates of bandwidth consumption.

The screenshot shows the configuration interface for a product group. It features several dropdown menus and a checkbox. The 'EchoBasic (Single Display)' dropdown is set to 'Extreme'. Below it, the 'Live Display' dropdown is set to 'Live Display' and the 'Optionally provisioned' checkbox is checked. To the right, there are two suggested use cases with red arrows pointing to them:

- Suggested use: Display of high motion video in HD**
 m4v-audio-vga: 128kbps; 44100Hz; stereo; w:640px; 384kbps; 30.0fps;
 ~230 MB/hr maximum
 flv-audio: 128kbps; 44100Hz; stereo; ~58 MB/hr maximum
 swf-chunked-video: w:1280px; 3333kbps; 30.0fps; ~1,500 MB/hr maximum
- Suggested use: Distance learning with off campus viewers**
 sdp-audio-video: 32kbps; 22050Hz; mono; h:480px; 238kbps; 30.0fps

✓ **Best Practice: Compare These Estimates to Your Own Experience**

The storage/bandwidth estimates shown are derived from a test environment. We recommend that you compare these estimates with your own experience. See [the discussion on bandwidth requirements](#) for details on estimating bandwidth for live webcasting.

5. If you want to enable live webcasting for this product group, do the following:
 - a. In the Format section, select a live format option from the drop-down list. "Live Display and Video" is selected in the example below.
 - i. Select the quality for the live webcasting option. "Mobile Capable" is selected in the example below.
 - ii. Review the suggested use cases for the output option and quality.
 - b. In the Device And Use Case Compatibility section, select the SafeCapture HD device by checking the box. Other devices can also be checked, however live webcasting is only supported using a SafeCapture HD device.

The example below shows the sections of the Edit Product Group page that contain these settings.

6. If you enabled live webcasting, check or uncheck the **Optionally provisioned** check box, shown in the figure below. This allows you to control live webcasting for an individual section that uses this product group.
- If this box is checked, you can enable or disable live webcasting when you configure the section schedule.
 - If this box is *not* checked, all schedules that use this product group *will automatically generate a live webcast*.

7. If you have not already, complete the Device And Use Case Compatibility section.
 8. Click **Save**.

View Product Group Details

1. Navigate to **Configuration > Product Groups**.
2. Select a product group by clicking it. The Product Group Details page appears as shown in the figure below.

Edit a Product Group

You can edit any field except **Organization**.

1. Navigate to **Configuration > Product Groups**.
2. Hover over the product group that you want to edit and click **edit**. The Edit Product Group page appears as shown in the figure below.

Product Groups > Edit Product Group
Edit Product Group – Example of a live optional config. Audio Only (Podcast). Balanced between file size & quality

Product Group Information

Name : Example of a live optional config. Audio Only (Podcast). Balanced between file size & quality

Description : Shows live optional configuration. This product group is designed for audio ~~podcast~~ creation for Media Import uploads. This sample product group will be edited

Organization : Institution

Estimated Storage (excluding original media) : ~30 MB/hr maximum

Product Details

Format	Quality	Outputs
Podcast Audio	Medium (Previously Quality)	Suggested use: Group Discussions (Balance between size & quality) mp3-audio: 64kbps, 44100Hz, mono; ~29 MB/hr maximum
Select Vodcast product...	None available	
Select EchoPlayer product...	None available	
Live Video <input checked="" type="checkbox"/> Optionally provisioned	Mobile Capable	Suggested use: Distance learning with off campus viewers sdp-audio-video: 32kbps, 22050Hz, mono; h.480px, 238kops, full frame-rate

Device And Use Case Compatibility

Disabled/greyed items indicate the selected Products will not work for the use case or with the capture device.

Allow this product group to work with the following devices:

- SafeCapture HD
- Capture Software
- Capture Appliance
- Personal Capture

Allow this product group to be used in the following cases:

- Ad hoc Capture
- Media Import

3. Edit the product group fields. You can edit any field except **Organization**. In this example, we edit the product group to create a low bandwidth version. Notice that the storage/bandwidth estimates have changed as shown in the figure below.

Product Groups > Edit Product Group
Edit Product Group – Example of a live optional config. Audio Only (Podcast). Low Bandwidth

Product Group Information

Name : Example of a live optional config. Audio Only (Podcast). Low Bandwidth

Description : Shows live optional configuration. This product group is designed for audio ~~podcast~~ creation for Media Import uploads. This sample product group has been edited to support low bandwidth

Organization : Institution

Estimated Storage (excluding original media) : ~10 MB/hr maximum

Product Details

Format	Quality	Outputs
Podcast Audio	Low (Previously Bandwidth)	Suggested use: Instructor Only (Optimized for size) mp3-audio: 32kbps, 22050Hz, mono; ~14 MB/hr maximum
Select Vodcast product...	None available	
Select EchoPlayer product...	None available	
Live Video <input checked="" type="checkbox"/> Optionally provisioned	Mobile Capable	Suggested use: Distance learning with off campus viewers sdp-audio-video: 32kbps, 22050Hz, mono; h.480px, 238kops, full frame-rate

Device And Use Case Compatibility

Disabled/greyed items indicate the selected Products will not work for the use case or with the capture device.

Allow this product group to work with the following devices:

- SafeCapture HD
- Capture Software
- Capture Appliance
- Personal Capture

Allow this product group to be used in the following cases:

- Ad hoc Capture
- Media Import

Save Cancel

4. Click **Save**. The Product Group Details page appears.
5. Click **Done** to return to the Product Groups page. You can also begin to add, copy, or edit a product group by clicking the relevant button at the bottom of the page.

Copy a Product Group

You might want to create a custom product group by copying an existing product group and editing a few fields.

1. Navigate to **Configuration > Product Groups**.
2. Hover over the product group you want to edit and click **copy**. The Add New Product Group page appears.
3. Edit the product group's name, description, or products.
4. Click **Save**. The Product Group Details page appears.
5. Click **Done** to return to the Product Groups page. You can also begin to add, copy, or edit a product group by clicking the relevant button at the bottom of the page.

Filter the List of Product Groups

1. Navigate to **Configuration > Product Groups**.
2. At the top of the page, select the organization whose product groups you want included in the filtered list.

The screenshot shows the 'Product Groups' search interface. At the top, there is a 'Search' header. Below it, the 'Organization' is set to 'Echo360' in a dropdown menu. To the right of the dropdown are 'Search' and 'Clear' buttons.

3. Click **Search**. Only those product groups matching the filter you selected appear. The example shown in the figure below shows product groups belonging to the Echo360 organization.

Name	SafeCapture HD	Capture Appliance	Capture Software	Ad Hoc	PCAP	EMI	Description
Audio Only (Podcast). Balanced between file size & quality	Y	Y	Y	Y	Y	Y	This product group is designed for audio podcast creation for external media uploads
Display Only (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality	Y	Y	Y	Y	Y		This product group is designed for all bandwidth options. It creates mobile and Echo Player formats for display only capture. It supports both the SafeCapture HD and 1st generation appliance as well as all software capture devices
Display Only (Podcast/Vodcast/EchoPlayer). Optimized for detailed PowerPoint presentations	Y		Y		Y		This product group is designed for high speed bandwidth options. It creates mobile and Echo Player formats at high quality for display only captures.
Display Only (Podcast/Vodcast/EchoPlayer). Optimized for high motion	Y					Y	This product group is designed for all bandwidth options. It creates mobile and Echo Player formats for external media uploads of digitized display captures.
Display/Video (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality	Y	Y		Y	Y		This product group is designed for low bandwidth and low quality capture needs. It creates mobile and Echo Player formats including display and video capture. It supports both the SafeCapture HD and 1st generation appliance.
Display/Video (Podcast/Vodcast/EchoPlayer). Optimized for quality/full motion video	Y			Y	Y		This product group is designed for all bandwidth options. It creates mobile and Echo Player formats at good quality for blended display and video capture.
Dual Display (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality	Y						This product group is designed for high speed bandwidth options. It creates mobile and Echo Player formats at good quality for dual display captures. Typical use cases are for classroom with dual projector systems where two display sources need to be captured simultaneously.
Dual Display (Podcast/Vodcast/EchoPlayer). Optimized for file size & bandwidth	Y			Y			This product group is designed for high speed bandwidth options. It creates mobile and Echo Player formats at good quality for dual display captures. Typical use cases are for classroom with dual projector systems where two display sources need to be captured simultaneously.
echo.DisplayOnly		Y		Y			Audio Podcast; Screen Podcast; no Rich Media
Seminars_sgg_low_bandwidth				Y	Y	Y	Low bandwidth version for podcasts only. Use for seminars that are mostly talk, no video or display.
Video Only (Podcast/Vodcast/EchoPlayer). Balanced between file size & quality	Y	Y		Y			This product group is designed for all bandwidth options. It creates mobile and Echo Player formats for video only capture. It supports both the SafeCapture HD and 1st generation appliance.
Video Only (Podcast/Vodcast/EchoPlayer). Optimized for presenter capture quality (SD)	Y						This product group is designed for high speed bandwidth options. It creates mobile and Echo Player formats at excellent quality for HD video. Typical use cases are for Chalkboard Capture or High Definition/Detailed Procedural demonstrations.
Video Only (Podcast/Vodcast/EchoPlayer). Optimized for presenter/procedures capture quality (HD)	Y					Y	This product group is designed for all bandwidth options. It creates mobile and Echo Player formats for external media uploads of digitized video captures.

4. To see the unfiltered list, click **Clear**.

Delete a Product Group

You can delete any product group.

1. Navigate to **Configuration > Product Groups**.
2. Hover over the product group you want to delete and click **delete**. A confirmation message appears.
3. Click **Yes**. The Product Groups page appears with a delete confirmation message at the top.

Manage the Branding Files Repository

In this section:

- [Overview](#)
- [Upload a Branding File](#)
- [Edit a Branding File](#)

Overview

The EchoSystem Server (ESS) allows institutions to brand (with logos, art, and messaging) the EchoPlayer that students use to review and interact with content. Please take a moment to upload your branding assets to this repository. Only assets within this repository can be used to customize the EchoPlayer. Once uploaded, you can choose which assets to use as branding elements by customizing the [branding settings](#).

Upload a Branding File

1. Verify that the file you want to use is a supported size and format. Refer to the following table for supported sizes and formats. You cannot scale an image in the ESS. Use a graphics design program such as Adobe PhotoShop to design and scale the image.

File	Supported Sizes and Formats
Player Banner Background Image	<p>Use .png or .jpg files. The image must be 2 pixels wide by 62 pixels high.</p> <p>This image is layered below the logo image, the metadata text, and the title. Choose an image and color that will contrast well with these elements.</p>
Player Logo Image	<p>Use .png or .jpg files. The image must be 2-250 pixels wide and no more than 62 pixels high.</p> <p>We recommend padding the image with 10 pixels of transparency on both sides.</p> <p>This image is layered above the background image. You may need to adjust the logo or background image.</p> <p>Animated .gif files are not supported.</p>

Intro and Outro clips	<p>Use a standard .mov or .mp4 file that is 5-60 seconds long. The file must contain both audio and video tracks.</p> <p>The image size must be 640x480 pixels.</p> <p>Please note that Outro clips are only added to the Podcast/Vodcast download files; they do not appear in the EchoPlayer.</p>
Watermark	<p>The watermark appears in the lower right corner of both the video pane and the display (VGA) pane.</p> <p>You can use any .png files except 16 bit channel .png files and grayscale alpha channel .png files. The watermark should be 1024x256 pixels or smaller.</p> <p>The image is scaled so the width is 10 percent the width of the pane. The height is scaled to the width, preserving the aspect ratio.</p> <p>If you are using Adobe PhotoShop, we recommend saving in PNG-24 format, checking the Transparency option, and checking the "convert to sRGB" option.</p>
EchoCenter Logo Image	<p>Use .png or .jpg files. The image must be 10-192 pixels wide by 10-32 pixels high.</p> <p>We recommend padding the image with 10 pixels of transparency on both sides.</p> <p>Animated .gif files are not supported.</p>

2. Navigate to **Schedule > Branding**.
3. Click **Add**. The Add Branding File page appears as shown in the figure below.
4. Enter a name.
5. Select the parent organization or child organization from the list.
6. Click the radio button for the branding file type. Note the technical requirements for that type below the row of radio buttons.
7. Click the **File** field, then click the **Upload File** button.
8. Browse to the file location on your computer and click **Open**.
9. Notice that the file begins to upload. While it is uploading, the Upload File field shows you how much has uploaded.
10. If the file uploads successfully, you see a new field, Verify Media File, and a series of checks.

Branding > Add New Branding File

Add Branding File

Branding File

Name :

Organization :

Logo image
 Banner background image
 Watermark image
 Intro/outro video
 EchoCenter Logo image

Requirements : For the EchoCenter Logo Image, use .png or .jpg files. The image must be 10-192 pixels wide by 10-32 pixels high.

File : File uploaded (0.0074 MB). [Delete Uploaded File](#)

Verify Media File :

Uploaded file is the correct type :

Uploaded file has valid dimensions :

[Save](#) [Cancel](#)

11. Click **Save**.

Edit a Branding File

Overview

You can navigate to the branding files list, hover the cursor over a particular file, and click the **edit** button, as shown in the screenshot below:

The screenshot shows the 'Branding Files' section of the EchoSystem interface. The navigation menu includes 'Echoes', 'Downloads', 'Schedule', 'Monitor', 'Reports', 'Configuration', and 'System'. Under 'Schedule', the 'Branding' sub-tab is active. The main content area displays a table with columns for 'Title' and 'Organization'. A single entry is shown: 'SJG branding file' under the 'Institution' organization. To the right of this entry are 'edit' and 'delete' buttons. A mouse cursor is hovering over the 'edit' button, and a tooltip with the text 'Edit the branding file' is displayed below it.

However, the "edit" button **does not** allow you to make changes to the appearance of the branding file. You can use the edit button to:

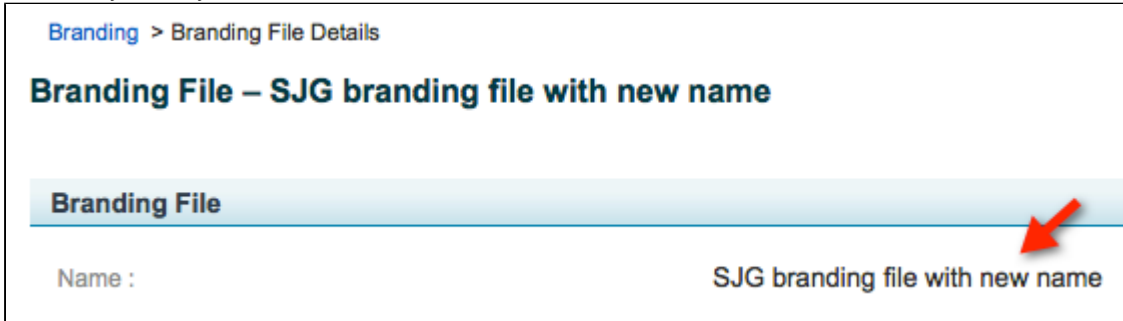
- Edit the **name** of the file. You might do this when the file has a somewhat generic name ("logo") and you are about to add another logo file. You might want to rename "logo" to "logo for arts and sciences" then add another file called "logo for med school".
- **Replace** the current file with a different file. You might do this when the logo has changed and another group has supplied you with the new logo file.

To **change** the branding file itself, open the file in an appropriate media editor (this will differ depending on the file type), make changes, and re-upload the changed file.

Procedure

1. Navigate to **Schedule > Branding**.
2. Hover over the file to be edited.

3. Click **edit**.
4. In the **Verify Certificate** dialog box, click **Trust**.
5. In the **applet is requesting** dialog box, click **Allow**.
6. On the Edit Branding File page, do one or both of the following:
 - a. Edit the **name** field.
 - b. Click the **Upload a file...** button, then follow the same procedure described in [Upload a Branding File](#).
7. Click **Save**.
8. If you edited the file name, you will see the new name on the Branding File Details page. If you uploaded a new file, you may notice that the file size is different.



Manage Rooms

In this section:

- [Overview](#)
- [Add Rooms](#)
- [Room Configuration Options](#)
- [License Rooms](#)
- [Assign Capture Appliance to the Room](#)
- [Assign Classroom Capture to the Room](#)
- [Retire a Room](#)
- [Delete a Room](#)
- [Reinstate a Room](#)

Overview

Rooms are a critical concept for the EchoSystem Server (ESS) and are configured by navigating to **Configuration > Rooms**.

Rooms are associated with Buildings and Campuses in a logical hierarchy. Within Rooms are Devices which are scheduled for capture or used for Ad Hoc captures. The Room must also be licensed for the capture method or device contained in the room.

Rooms, Buildings, and Campuses are all created through the Add Room functionality. The following table provides descriptions of these terms and how they apply.

Concept	Applies To	Description
Campus(es)	Buildings Rooms	Campus defines the physical campus on which buildings and classrooms exist. They are the top tier in room structure.

Building(s)	Rooms	Buildings define the physical building in which the classrooms exist. They are the second tier in the room structure.
Rooms	Capture Appliances Classroom Capture	Rooms are the physical classroom or lab in which lectures are occurring and are captured. Rooms are scheduled for capture.
Device Room Assignment	Capture Appliances Classroom Capture	EchoSystem devices are assigned to rooms for scheduling.
Room or Venue License Assignment	Venues/Rooms with capture appliances Venues/Rooms with Classroom Capture	Specific venues that are licensed for capture, typically classrooms, auditoriums, or other lecture locations.
Room Settings	Rooms with capture appliances Rooms with Classroom Capture	The settings for a room.

You can filter the Rooms list by Campus, Building, or Keyword to quickly find a specific room. You can also add new rooms, import or export rooms (via a CSV file), or retire rooms.

Add Rooms

Rooms are the physical locations in which capture is occurring. They are defined within a structure of campuses and buildings. Capture devices are assigned to rooms and rooms are scheduled for capture.

1. In the ESS interface, navigate to **Configuration > Rooms**.
2. Click the **Add** button. The Add New Room screen opens as shown in the below figure.

Add New Room

Location

Campus : [Add >>](#) [Edit >>](#) [Delete >>](#)

Building : [Add >>](#) [Edit >>](#) [Delete >>](#)

Room Details

Name :

EchoSystem Identifier : 6760ec61-10ba-473c-a567-afe6914be3d6

Alternate Identifier :

Organization :

Device Web User Interface

These settings control the capture device's Local Web UI parameters, and also the authentication into the capture device's REST API. Change these settings on a room's page to override the global defaults.

Admin User Name / Password : / Generic User Name / Password : /

3. If necessary, add a campus.
 - a. Click the **Add** link next to the campus list to open the Add New Campus dialog.
 - b. Add the name of your campus.
 - c. If appropriate, enter an Alternate Identifier for the campus. See [Room Configuration Options](#) for details on this field.
 - d. Select a Time Zone from the list. This is the time zone where the campus is.
 - e. Click **Save**. If you have capture rooms across multiple campuses, you will create each of these campuses using the same steps when you create the rooms.
4. Select the appropriate campus.
5. If necessary, add a building using the same steps as adding a campus above.
6. Select the appropriate building.
7. Complete the Room Details section. See [Room Configuration Options](#) for details.
8. Review the fields and if necessary edit the Device Web User Interface fields. These are inherited from the device defaults. See [Room Configuration Options](#) for details. See [Manage Device Defaults](#) for information on setting these defaults.
9. Click **Save**.
10. On the Room screen, the new entry is visible as a line item in the Rooms list.
11. Repeat this operation for each room, campus, and building as needed.

You may sometimes want to add many rooms all at once or to change properties of many rooms. You can do this efficiently by using the export and import feature with a spreadsheet program such as Excel. See [Import and Export Objects](#).

Room Configuration Options

Room Location

The following figure shows the Room Location configuration settings. Below the figure is a table that describes the settings available.

Add New Room

Location

Campus : echo.campus Add >> Edit >> Delete >>

Building : echo.building Add >> Edit >> Delete >>

Setting	Description	Inherited From...
Campus	The campus in which the capture room resides	N/A
Building	The building in which the capture room resides	N/A

Room Details

The following figure shows the Room Details configuration settings. Below the figure is a table that describes the settings available.

Room Details

Name :

EchoSystem Identifier : 6760ec61-10ba-473c-a567-afe6914be3d6

Alternate Identifier :

Organization : Choose... Add >> Edit >> Delete >>

Setting	Description
Name	The name of the room or lecture hall where the capture appliance is installed, or its identifying number.
EchoSystem Identifier	The globally unique identifier (GUID) used by the EchoSystem Server (ESS) to identify the object. The ESS automatically assigns this ID to each object in the system. You may use this identifier when making API or other system calls. See API Documentation for further explanation.

<p>Alternate Identifier</p>	<p>The globally unique identifier (GUID) used by an external system, such as an LMS or LDAP, to identify the object. Entering an Alternate ID is optional, but allows you to use the external system's GUID (not the EchoSystem Identifier) when making API or other system calls.</p> <p>The Alternate Identifier must be unique for each ESS object type. See API Documentation for further explanation.</p>
<p>Organization</p>	<p>The organization that owns the room. If you are the System Administrator or Administrator of the parent organization, you will see all rooms. If you are the Administrator of a child organization, you will see only the rooms owned by your organization.</p>

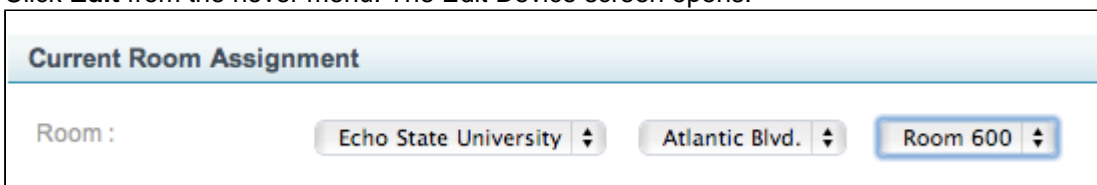
License Rooms

Classrooms, auditoriums, lecture halls or other venues can be licensed individually or as a group. See [Manage Licenses](#) for more information on licensing, and [License Rooms](#) for instructions on assigning individual licenses to rooms or venues.

Alternately, EchoSystem allows you to assign a license for a capture method for a room at the same time you assign the capture appliance or classroom capture installation to the room. The instructions in the following sections show you how to assign capture methods to a room, including a step for assigning a license if necessary.

Assign Capture Appliance to the Room

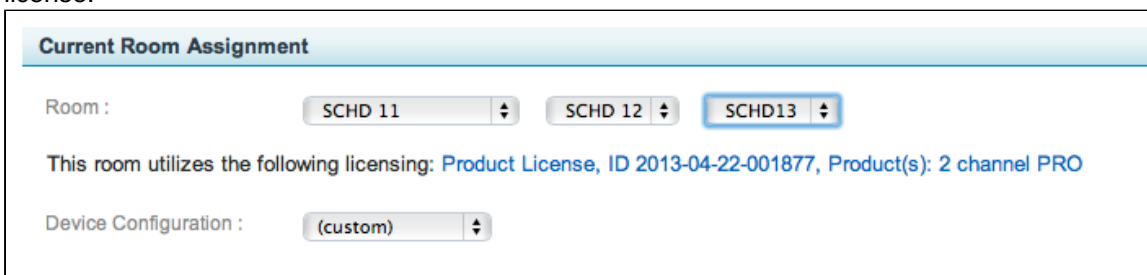
1. Log in to the ESS.
2. Navigate to **Configuration > Devices**.
3. Mouse over the line item of the capture appliance to be assigned to the room.
4. Click **Edit** from the hover menu. The Edit Device screen opens.



Current Room Assignment

Room :

5. Select the campus, building and room from the Current Room Assignment section.
6. If necessary, select a license from the **License** drop-down list. This assigns a product license to that room for the selected device. The figure below shows an SCHD device assigned to a room with an appropriate license.



Current Room Assignment

Room :

This room utilizes the following licensing: [Product License, ID 2013-04-22-001877, Product\(s\): 2 channel PRO](#)

Device Configuration :

7. Click **Save**. The device summary appears.

8. Click **Done**. The Device Details screen shows the capture appliance and room assignment.
9. Repeat this operation for each capture appliance and associated room.

The capture appliance is now enabled and assigned a licensed room location. Your EchoSystem is now installed and ready to capture lectures. See [EchoSystem Capture in the Classroom](#) for additional information and links to related documentation.

i If You Are Assigning the EchoSystem SafeCapture HD

The SafeCapture HD does not record high definition content that is protected by HDCP (High-bandwidth Digital Content Protection). If other devices in the room use HDCP, the SafeCapture HD does not record their content.

Assign Classroom Capture to the Room

1. Log in to the ESS.
2. Navigate to **Configuration > Devices**.
3. Mouse over the line item of the device to be assigned a room.
4. Click **Edit** from the hover menu. The Edit Device screen opens.
5. Select the campus, building and room from the Current Room Assignment section.

Current Room Assignment

Room : Echo State University Atlantic Blvd. Room 700

6. If necessary, select a license from the **License** drop-down list. This assigns a product license to that room for the selected device. The figure below shows a Classroom Capture device assigned to a room with an appropriate license.

Current Room Assignment

Room : CourtCampus CourtBuilding Andy's CC

This room utilizes the following licensing: [Product License Classroom Capture, ID 2014-01-08-001844](#), [Product\(s\): Podcast, Enhanced Podcast, Vodcast, Rich Media \(A/V, A/D, A/V/D\)](#)

7. Click **Save**. The device summary appears.
8. Click **Done**. The Device Details screen shows the capture appliance and room assignment.
9. Repeat this operation for each Classroom Capture device and associated room.

The Classroom Capture software is now enabled and assigned a licensed room location. Your EchoSystem is now installed and ready to capture lectures. See [EchoSystem Capture in the Classroom](#) for additional information and links to related documentation.

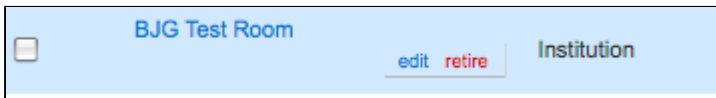
Retire a Room

You can retire a room that is not currently active. You cannot retire a room that is still associated with a course, a section, or a schedule. Those rooms are considered active and cannot be retired.

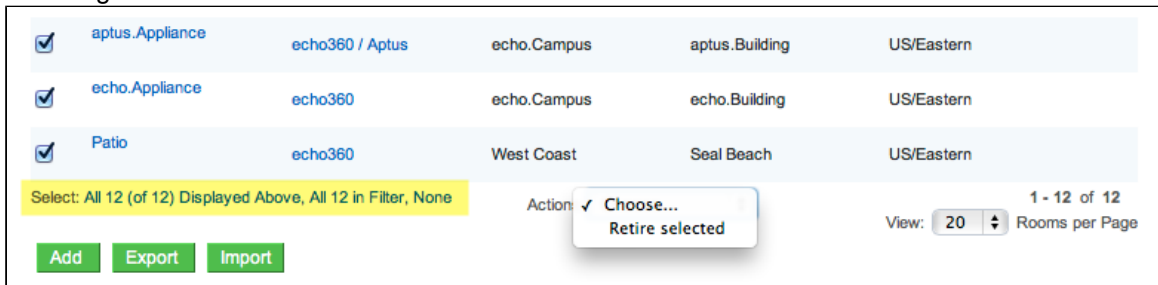
To retire rooms, you must have the role of Administrator of either the parent or child organization or System Administrator of the parent organization.

After you retire a room, you cannot associate the room with a course, a section, or a schedule. Retiring a room does not [delete the room permanently](#). You can [reinstate](#) a retired room later.

1. Navigate to **Configuration > Rooms**.
2. To retire a single room, hover your mouse over the room's name and click **retire**, as shown in the figure below.



3. To retire multiple rooms at once:
 - a. Check the rooms you want to retire, either individually or using the Select links at the bottom of the page, highlighted in the below figure.
 - b. Scroll to the bottom of the page. Select **Retire selected** from the drop-down box, also shown in the below figure.



4. In either case, a confirmation message appears. Click **Yes** to confirm the retirement of the room(s).

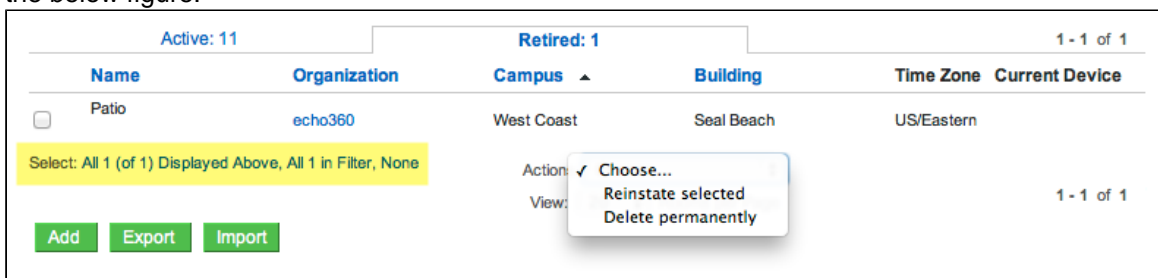
The selected room(s) move to the Retired tab.

Delete a Room

Deleting a room removes that room permanently from the ESS. To delete rooms, you must have the role of Administrator of either the parent or child organization or System Administrator of the parent organization. You cannot delete rooms that are associated with an ongoing course, section or schedule. To delete those rooms, you must remove the association between the room and the course, section, or schedule first.

You must [retire](#) a room before you can delete it.

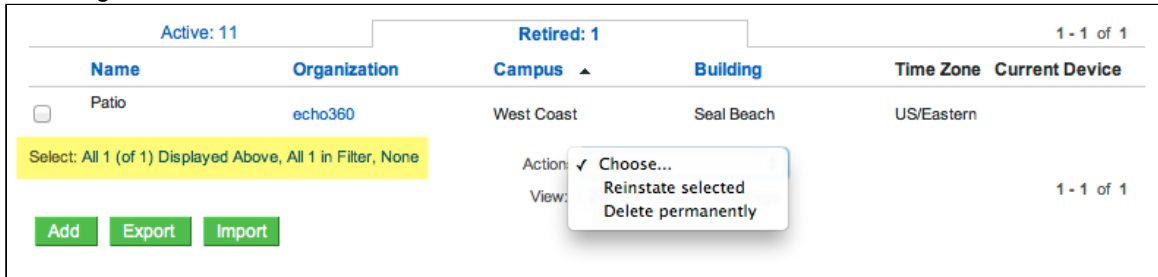
1. Navigate to **Configuration > Rooms**.
2. If necessary, [retire](#) the room or rooms.
3. Select the Retired tab, as shown in the figure below.
4. To delete a single room, hover your mouse over the room's name and click **delete**.
5. To delete multiple rooms at once:
 - a. Check the rooms you want to delete, either individually or using the Select links at the bottom of the page, highlighted in the below figure.
 - b. Scroll to the bottom of the page. Select **Delete permanently** from the drop-down box, also shown in the below figure.



6. In either case, a confirmation message appears. Click **Yes** to confirm the deletion of the room(s).

Reinstate a Room

1. Navigate to **Configuration > Rooms**.
2. Select the Retired tab, as shown in the figure below.
3. To reinstate a single room, hover your mouse over the room's name and click **reinstate**.
4. To delete multiple rooms at once:
 - a. Check the rooms you want to reinstate, either individually or using the Select links at the bottom of the page, highlighted in the below figure.
 - b. Scroll to the bottom of the page. Select **Reinstate selected** from the drop-down box, also shown in the below figure.



The rooms are reinstated and appear on the Active tab.

Manage Users

In this section:

- [Overview](#)
- [System Roles](#)
- [Organization Roles](#)
- [Section Roles](#)
- [If You Have Delegated Administration](#)
- [Export and Import Users](#)

Overview

As the Administrator, you will want to add users and, in most cases, assign them to organizations and roles. These users (Administrators, License Managers, Schedulers, A/V/V Technicians, and Academic Staff) are **Active Staff**. They can log in to the ESS (EchoSystem Server).

You may also want to add users who are **Active Students**. Active Student users:

- Are **not** assigned an organization and role. When you add a user but do not assign an organization or role, the user is, by default, an Active Student.
- Cannot log in to the ESS.
- Have their activities logged and included in [engagement analytics](#).

The figure below shows how Active Staff and Active Students are organized into different tabs on the Users list page (**Configuration > Users**).



Any Administrator (System Administrator, parent organization Administrator, or child organization Administrator) can

add users.

EchoSystem comes configured with several user roles, each with a unique set of rights, as described below.

Role names are part of the EchoSystem Server UI, and so can be [localized](#).

For information on monitoring and managing Personal Capture users, see [Administer Personal Capture](#).

System Roles

The System level roles described in the table below can only be associated with the parent organization.

Role	Description
License Manager	<p>This role can view licensing assignments within the EchoSystem. When combined with the Admin role, the user can assign licenses to rooms, and Personal Capture licenses to Academic Staff.</p> <p>The License Manager role can only be assigned at the root or parent Organization level. This is why it is considered a "System Role" and not an "Organization Role." The License Manager role allows the user to view all assigned licenses across the entire organization, including sub-organizations.</p> <p>If the user is also assigned the Admin role for an organization (either parent or child), the user can then assign or revoke licenses for that organization.</p>
System Admin	The System Admin (System Administrator) can perform all ESS actions, in the parent or any child organization.

Organization Roles

The Active Staff roles described in the table below are associated with either a parent or child organization. When the role is associated with the parent organization, the user can perform allowed actions for the parent organization or any child organization. When the role is associated with a child organization, the user can affect only objects owned by the child organization.

Role	Description
------	-------------

<p>Academic Staff</p>	<p>This role identifies the user as a member of the Academic Staff for the selected organization. This role assignment allows the user to:</p> <ul style="list-style-type: none"> • Be assigned to a section and given a role within that section, such as Instructor. • Be licensed to use Personal Capture. • Log in to the ESS to review and edit Echoes for an assigned section. • Log in to the EchoCenter for an assigned section and review student usage or prepare Lecture Tools materials. <p>Academic Staff can only be assigned to sections belonging to their organization or sub-organization.</p> <p>You can assign this role at the parent organization level if the user is not associated with a specific child organization and needs to be assigned a section role.</p>
<p>Admin</p>	<p>The parent organization Admin (Administrator) can do everything except system configuration (the System Settings page). More specifically, the Administrator can:</p> <ul style="list-style-type: none"> • Create and manage child organizations • Manage and create objects (courses, rooms) in child organizations • Manage all user accounts and roles except the System Administrator • Perform all monitoring tasks for both parent and child organizations • Manage the details of a course or section (edit a course or course details; edit a section or section details) <p>These configuration choices apply to the entire institution and where applicable are inherited by the child organizations.</p> <p>The child organization Administrator can:</p> <ul style="list-style-type: none"> • Set defaults for the child organization • Create objects owned by the child organization • Access shared objects from the parent organization • Perform all monitoring tasks for the child organization • Manage the details of a course or section (edit a course or course details; edit a section or section details) <p>When combined with the License Manager role, a user can assign and revoke Room licenses and Personal Capture licenses for the organization to which their Admin privileges apply.</p>

A/V Technician	<p>The A/V Technician can:</p> <ul style="list-style-type: none"> • Register devices and assign devices (Configuration > Devices) to rooms • Configure properties set at the device level (Configuration > Device Configuration) or room level (Configuration > Rooms) • View (but not edit) Echoes in all available formats (Podcast, Vodcast, EchoPlayer) • View the Monitor tab • View capture details and logs
Scheduler	<p>The Scheduler can perform all schedule-related tasks for the parent organization or any child organization. More specifically, the Scheduler can:</p> <ul style="list-style-type: none"> • Create terms, courses, and sections • View the Monitor Summary and Processing Tasks tabs, seeing information for both the parent and child organizations • Schedule captures for the parent organization or any child organization • Manage the details of a course or section (edit a course or course details; edit a section or section details)

Section Roles

If you assign the Academic Staff role to a user, you will also apply one of the following section roles to the user when you [add a section](#).

- Guest Presenter
- Instructor
- Student Presenter
- Teaching Assistant

These particular roles, described in the below table, are assigned on the section level to allow flexibility. For example, a particular individual might be a Guest Presenter for a section in the business school, but an Instructor for a different section in the math department.

Role	Description
Guest Presenter	<p>The Guest Presenter gives a single (or a few) lectures to a particular section. These lectures are usually captured via the Ad Hoc interface. The Guest Presenter:</p> <ul style="list-style-type: none"> • Can view Echoes for which he or she was the Presenter • Can participate in discussions in the EchoPlayer • Cannot edit, reprocess or change the state of an Echo

Instructor	<p>The Instructor is the course owner. The Instructor:</p> <ul style="list-style-type: none"> • Can edit, reprocess, change state and permanently delete Echoes • Is listed in metadata as the person who presented the materials in the ESS and EchoPlayer data • Can import external media and Personal Capture presentations for their sections • Can see viewing statistics in the EchoCenter and can see hot spots in the EchoPlayer • Can participate in and moderate discussions (delete posts and replies) in the EchoPlayer
Student Presenter	<p>This role is primarily for students who prepare Personal Capture presentations as class assignments. The Student Presenter can do these tasks for his section:</p> <ul style="list-style-type: none"> • Prepare presentations in the Personal Capture application, then log in to the ESS to publish them • Log in to the Ad Hoc interface and prepare captures • Log in to the ESS and view only all Echoes <p>A Student Presenter:</p> <ul style="list-style-type: none"> • Cannot import external media • Cannot edit any presentations, even presentations he himself published • Does not appear in schedules • Must be granted access if LDAP Authentication or trusted system security is applied to the section
Teaching Assistant (TA)	<p>The Teaching Assistant (TA) has rights similar to an Instructor's but:</p> <ul style="list-style-type: none"> • Cannot permanently delete an Echo. • Is not listed as the Presenter. To allow this person to be listed as the Presenter for certain Echoes, assign the Guest Presenter role.

If You Have Delegated Administration

This table below provides some common scenarios and answers some frequently asked questions about managing users in an organization with delegated administration.

Scenario	Solution
We manage all schedules centrally at my institution but I want user roles and other objects to be managed by department. What should I do?	Give users who manage schedules the Scheduler role at the parent organization. This allows them to schedule courses and rooms for all child organizations.

We have a designated administrator for each organization in our hierarchy. We want that person to manage everything for those organizations. What should we do?

Give these users two roles for their respective organizations: the organization Administrator role and the License Manager role. In the Administrator role, they can then create objects and users and assign more granular roles accordingly. With the License Manager role, they can assign licenses from the license page. Child organization Administrators can do this because licenses are automatically shared, even though they are owned by the parent organization.

Export and Import Users

You may sometimes want to add many users all at once or to change properties of many users. You can do this efficiently by using the export and import features with a spreadsheet program such as Excel.

- For general information on the export and import function, see [Import and Export Objects](#).
- For details on the exact format required to export and import users, see [Import Users](#).

Add a User

In this section:

- [Overview](#)
- [Procedure](#)

Overview

This procedure explains how to add a single user through the user interface. You can also add many users all at once (or change their attributes) using the [import/export method](#).

If the User is an Instructor

You may be adding a user as an Academic Staff Member, whom you will assign to specific sections later.

Procedure

1. Navigate to **Configuration > Users**.
2. Click **Add**. The Add New User screen appears, as shown in the figure below.

Add New User

User Details

First Name :

Last Name :

Display Name :

Email Address :

Block Alerts? :

Local Time Zone :

EchoSystem Identifier : 32f85941-792d-4e6e-a51a-e3c6c8e7fd09

Alternate Identifier :

Organization Roles

Organization: Role: [Add >>](#)

User Account

User Name :

Password :

Confirm Password :

Passwords can be left blank for users other than "System Admin" when using LDAP authentication.

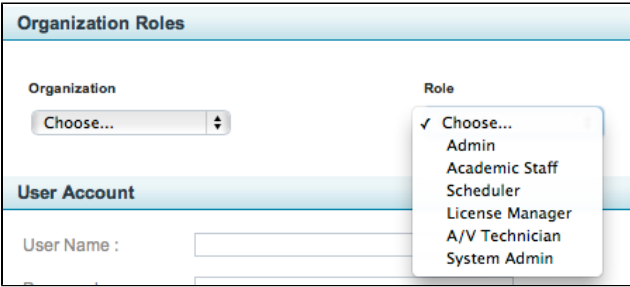
Academic Staff Upload Settings

These settings control the upload of media files via the External Media tab in the EchoSystem Server and via Echo360 Personal Capture. Change these settings on a presenter's page to override the global defaults.

May Upload External Media : May Configure Products :

3. Complete the form by filling in the fields with the necessary information. The table below describes each field.

Field	Description
First Name & Last Name	The First and Last Names for the user.
Display Name	Enter the name that should appear in the system, such as on Echoes or in Discussion logs for the user. Can be different than the name entered elsewhere on the form. For example, the user's name might be Larry Uffelman but his Display Name should appear as Dr. L. Uffelman.
Email Address	Email address for the user. This field is required.
Block Alerts?	Use the checkbox to determine if the user should receive monitor alerts to the email address provided. Check the box to block alerts.
Local Time Zone	Select the local time zone from the drop-down list.

EchoSystem Identifier	<p>The globally unique identifier (GUID) used by the EchoSystem Server (ESS) to identify the object. The ESS automatically assigns this ID to each object in the system. You may use this identifier when making API or other system calls. See API Documentation for further explanation.</p>
Alternate Identifier	<p>The globally unique identifier (GUID) used by an external system, such as an LMS or LDAP, to identify the object. Entering an Alternate ID is optional, but allows you to use the external system's GUID (not the EchoSystem Identifier) when making API or other system calls.</p> <p>The Alternate Identifier must be unique for each ESS object type. See API Documentation for further explanation.</p>
Organization & Role	<p>If you are creating a Student User, skip these fields. Students are identified by the system as "users without a defined role or organization".</p> <p>For all other users you must complete this section. Assign Organization and Role as follows:</p> <ol style="list-style-type: none"> Select the Organization to which this user belongs. Select a Role for the user. Your options are shown in the below figure. Then click Add. Repeat these actions to assign the user to a different role in the same organization, or to a role in a different organization. 
User Name	<p>Enter the account User Name for this user. This is what the user will enter when logging into the system and must uniquely identify the user.</p>
Password & Confirm Password	<p>Enter a password and confirm the password for the Username provided. This is NOT required for users other than System Administrators if you are using LDAP for authentication. System Administrators MUST have a username and password even if using LDAP authentication.</p>

May Upload External Media	Check this box to allow this user to upload external media to the system such as media files to support a class or a Personal Capture recording. NOTE: Personal Capture still requires a license to upload recordings, in addition to having this option checked for the user.
May Configure Products	Check this box to allow this user to configure uploaded media, such as editing echoes or other media files uploaded to the system.

4. When finished, click **Save**.

Verify that the user was added properly by checking the different tabs in the Users page on the ESS, shown in the below figure.

- If you created a non-Student user, the new user is listed in the Active Staff tab.
- If you created an Active Student user, the new user is listed in the Active Students tab.

Active Staff: 13			Active Student: 1	Retired: 0
Name ▾	Email Address	System Role(s)		
<input type="checkbox"/> sys admin	sysadmin@sn.com	echo360-->System Admin		
<input type="checkbox"/> shruthi	shruthi@sn.com	echo360-->Academic Staff		
<input type="checkbox"/> orgstudent sn	sn.student@sn.com	echo360 / shruthi-->Academic Staff; echo360-->Academic Staff		
<input type="checkbox"/> orgscheduler sn	sn.scheduler@sn.com	echo360 / shruthi-->Scheduler		
<input type="checkbox"/> orginstructor sn	sn.instructor@sn.com	echo360 / shruthi-->Academic Staff; echo360-->Academic Staff		

View User Details

In this section:

- [Overview](#)
- [Personal Capture Licenses](#)
- [Active Schedules](#)

Overview

To view or edit user details, navigate to **Configuration > Users**, then click the name of the user from the User list. Click **Edit** located at the bottom of the page to make changes.

When you view user details, you see all the settings (User Details, Organization Roles, User Account, Academic Staff Upload Settings) you configured when you added the user, plus some additional settings, as shown and described below.

Personal Capture Licenses				
Name	Products	Available	Expiration Time	
<input checked="" type="checkbox"/> Product License - SITE, ID 2011-09-09-001926	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoPlayer Display, EchoPlayer Display and Video, EchoPlayer Video, EchoPlayer Dual Display	0	6/2/12 8:00 PM (in 6 months, 0 days)	
Active Schedules				
Title	Presenter	Room	Status	Capturing Device
Introduction to Linguistics (ENG205-001) (ENG205-Special Projects) Spring 2012	Gagne, Bronwyn	Dulles: Tadesse building, Tadesse Room	1/9/12 - 5/3/12 Wed 6:00 PM - 6:50 PM	b8-ac-6f-39-60-12 (since 11/17/11 5:33 PM)

Personal Capture Licenses

Personal Capture Licenses lists the Personal Capture license associated with the user.

- If your institution purchased a site license, Presenters are automatically granted a Personal Capture license, as shown above.
- If your institution purchased individual Personal Capture licenses, you can glance at this user details page to see if a user has a license assigned and how many licenses are available. To assign or deassign a license, follow these steps and refer to the screenshot below:
 1. Click the Edit button at the bottom of the page to edit the user
 2. Check or uncheck the box next to the user name
 3. Save the user record

Personal Capture Licenses		
Name	Products	Available
<input checked="" type="checkbox"/> Product License - PCAP , ID 2011-02-10-001826, Product(s): Podcast, Enhanced Podcast, Vodcast, Rich Media Audio, Rich Media Video	Podcast Audio, Enhanced Podcast Audio, Screen Podcast, EchoBasic (Single Display), EchoEnhanced (dual channel, Video and Display)	8

Active Schedules

Active Schedules lists active schedules associated with the user. You cannot edit this setting.

Retire and Reinstate a User

In this section:

- [Overview](#)
- [Retire a User](#)
- [Procedure - Reinstate a User](#)

Overview

Retiring a user temporarily removes the user's privileges but does not [delete the user permanently](#). You can reinstate a retired user.

You can retire a staff member who is associated with an active section or schedule. If there are scheduled captures associated with the user, these captures will be assigned to the Default Presenter. See [What is the Default Presenter?](#)

You cannot retire yourself as a user when you are logged in with that user account.

You cannot retire a System Administrator; you must first remove the System Admin role.

To retire or reinstate a user, you must be:

- An Administrator (assigned the Admin role) for the user's organization, or
- System Administrator of the parent organization.

i Retiring System Administrators with No Other Role

As stated above, you must remove the System Admin role from a user before you can retire them. After you remove the System Admin role and click Save, the User Details screen appears, including a Retire button at the bottom. If you do not retire the user at this point, and the user has no other roles assigned, the user will appear in the Active Student tab. Students are defined by the system as any user without an assigned organization and role.

Retire a User

1. Navigate to **Configuration > Users**.
2. If you can easily do so, use the Search options to find only the users you want to retire.
3. Check the users you want to retire, either individually or using the Select links at the bottom of the page, highlighted in the below figure.
4. Scroll to the bottom of the page. Select **Retire selected** from the drop-down box, also shown in the below figure.

<input checked="" type="checkbox"/>	Laura Test	lingle@echo360.com	echo360 / lmi-->Academic Staff; echo360-->Academic Staff; echo360-->System Admin	7/3/13 10:15 PM
<input checked="" type="checkbox"/>	lenin madhu	lenin@aptus.in	echo360 / Aptus-->Admin; echo360-->License Manager	7/3/13 11:11 PM
<input checked="" type="checkbox"/>	mohan kumar	mohan@gmail.com	echo360 / Aptus-->Scheduler	
<input checked="" type="checkbox"/>	naveen kumar	naveen@yahoo.com	echo360 / Aptus-->Academic Staff	
<input checked="" type="checkbox"/>	Nithya Admin	1nr.admin@echo.com	echo360-->Admin	

Select: All 20 (of 65) Displayed Above, All 65 in Filter, None

Action: Choose...

- Retire selected
- Assign PCAP Presenter License
- Revoke All PCAP Presenter Licenses

1 - 20 of 65 | 20 Users per Page

Add Export Import

5. Confirm that you want to retire the user(s).
6. Notice that a confirmation message appears. If the user being retired is associated with future captures, these future captures will be assigned to the Default Presenter. See [What Is the Default Presenter?](#)
7. Click **Yes** to confirm the retirement of the user(s). The selected users move to the Retired tab.

What Is the Default Presenter?

The Default Presenter is a particular type of user, created for a specific case: if you retire an Academic Staff member who is the only Instructor assigned to a section and/or the only Presenter associated with a scheduled capture, the system automatically assigns the "Default Presenter" user to the section and future captures. This is because this information is required for sections and schedules.

- You do not have to create a Default Presenter. The ESS creates this user account automatically.
- The Default Presenter cannot be retired or deleted.
- The assignment of Default Presenter occurs automatically when the sole instructor or presenter is retired. The screenshot below shows the Default Presenter as the Instructor for a section.

People and Section Roles	
Person	Section Role
Default Presenter	Instructor

⚠ Replace Default Presenters with Academic Staff

When a new Instructor is assigned to the section, you should update the section and associated schedules with the newly assigned staff member, removing the Default Presenter from those configurations.

To easily find Default Presenter assignments to replace, you can:

- Perform a Search on the Courses list page:
 - a. Navigate to **Schedule > Courses**.
 - b. Enter "Default Presenter" or select the Default Presenter from the **Person** drop-down list.
 - c. Click **Search**.
- Sort the Schedules list page:
 - a. Navigate to **Schedule > Schedules**.
 - b. Click the **Presenter** column to sort the list by Presenter, OR
 - c. Enter "default" into the Keyword Search box and click **Search**. This is shown in the below figure.

Search				
Filter By :	Date	From :	To :	Keyword Search : default
All: 34	Available: 11	Unavailable: 13	Archived: 10	<input type="button" value="Search"/>
Title	Presenter	Term	Start T	
<input type="checkbox"/> Intro to Linguistics (LING 101-MWF section) 2013 LING 101-UrsuMWF section	Default Presenter	2013	6/12/13	
<input type="checkbox"/> section-echo.Summer 2011.1.2013.06.11.07.35.56.AM ASLPL-section	Default Presenter	echo.Summer 2011.1	6/12/13	
<input type="checkbox"/> section-echo.Summer 2011.1.2013.06.11.02.55.48.AM ASLPL-section	Default Presenter	echo.Summer 2011.1	6/12/13	

Either method allows you to review the current Default Presenter assignments, and change them to assign active Academic Staff as necessary.

Procedure - Reinstate a User

1. Navigate to **Configuration > Users**.
2. Click the **Retired** tab to show retired users.
3. To reinstate only one user, hover your mouse over that user's name and click **reinstate**.
4. To reinstate multiple users:
 - a. Check the users you want to reinstate, either individually or using the Select links at the bottom of the page, highlighted in the below figure.
 - b. Scroll to the bottom of the page. Select **Reinstate selected** from the Actions drop-down list, also shown in the below figure.

Active Staff: 18				Active Student: 0		Retired: 1		1 - 1 of 1	
Name	Email Address	System Role(s)	Assigned Licenses	Last Log In					
<input type="checkbox"/> orgassistant sn	sn.assistant@sn.com	echo360 / shruthi-->Academic Staff; echo360-->Academic Staff							
Select: All 1 (of 1) Displayed Above, All 1 in Filter, None					Action		1 - 1 of 1		
<input type="button" value="Add"/> <input type="button" value="Export"/> <input type="button" value="Import"/>					<input checked="" type="button" value="Choose..."/>		View: 20 Users per Page		
					<input type="button" value="Reinstate selected"/> <input type="button" value="Delete permanently"/>				

5. The selected users move to the Active tab.

If appropriate, you should update any section and associated schedules configurations, to replace any [Default Presenter assignments](#) with the reinstated Academic Staff member.

Delete a User

In this section:

- [Overview](#)
- [Delete Active Staff](#)
- [Delete Students](#)

Overview

Deleting a user removes that user permanently from the ESS.

To delete users, you must be:

- An Administrator (assigned the Admin role) for the user's organization, or
- System Administrator of the parent organization

You must [retire](#) a user before you can delete it.

Delete Active Staff

When you delete an Active Staff member, the following occurs:

- **No log in.** The staff member can no longer log into the EchoSystem.
- **Existing Echoes and Past Schedules.** For Academic Staff associated with sections, the name of the staff member remains with the Echoes and completed schedules in which the user was a Presenter. This name appears in the EchoCenter and EchoPlayer.

To delete active staff members:

1. Navigate to **Configuration > Users**.
2. If necessary, [Retire](#) the user(s).
3. Select the Retired tab.
4. To delete individual users, hover your mouse over that user's name and click **delete**, as shown in the figure below.



5. To delete multiple users:
 - a. Check the users you want to delete, either individually or using the Select links at the bottom of the page, highlighted in the below figure.
 - b. Scroll to the bottom of the page. Select **Delete permanently** from the Actions drop-down list, also shown in the below figure.

Active Staff: 18		Active Student: 0		Retired: 1		1 - 1 of 1	
Name	Email Address	System Role(s)	Assigned Licenses	Last Log In			
<input type="checkbox"/> orgassistant sn	sn.assistant@sn.com	echo360 / shruthi-->Academic Staff; echo360-->Academic Staff					
Select: All 1 (of 1) Displayed Above, All 1 in Filter, None				Action:	<input checked="" type="checkbox"/> Choose... <input type="checkbox"/> Reinstate selected <input type="checkbox"/> Delete permanently	View: 20 Users per Page	
Add		Export		Import			

6. In either case, a confirmation message appears. Click **Yes** to confirm the deletion of the user(s).

Delete Students

Student accounts are usually deleted programmatically, by using the API. However you can use the above instructions to delete students manually.

As with deleting any type of user through the ESS interface, [student users must be retired](#) before they can be deleted.

Manage Student Users

In this section:

- [Overview](#)
- [Automatic Student Import from LMS or LDAP](#)
- [Manual Bulk Student Import via CSV File](#)
- [Add Individual Student Users Manually](#)

Overview

When you add students to the EchoSystem Server (ESS), student activities (viewing Echoes and participating in discussions) can be tracked. These **engagement analytics** give valuable insight into student learning and help Academic Staff teach more effectively. Engagement analytics are typically presented in student usage reports, though they can also be downloaded and made part of a broader analysis. See [Student Usage Reports - Are Students Engaged?](#) for details.

Students added to the system are listed in the Active Students tab of the Users page of the ESS, shown in the below figure.

Users (Active Student)			
Search			
Keyword Search : <input type="text" value="Name / E-Mail / etc..."/>		<input type="button" value="Search"/>	<input type="button" value="Clear"/>
Active Staff: 60		Active Student: 20	Retired: 1
		1 - 20 of 20	
Name	Email Address	System Role(s)	Last Log In
<input type="checkbox"/> active stu	stu@u.in		
<input type="checkbox"/> Andrew Analore	aanalore@echo360.com		
<input type="checkbox"/> Bernard Koloski	bkoloski@echo360.com		
<input type="checkbox"/> Bronwyn Gagne	bgagne@echo360.com		2/5/13 10:28 AM
<input type="checkbox"/> Denice ThornStudent	dthornstudent@gmail.com		
<input type="checkbox"/> Douglas Thomas	dthomas@echo360.com		
<input type="checkbox"/> Dwayne Mumma	dmumma@echo360.com		
<input type="checkbox"/> Earl Stoltzfus	estoltzfus@echo360.com		
<input type="checkbox"/> Erica Hanselman	ehanselman@echo360.com		
<input type="checkbox"/> FirstName2_Lastname2	test223@test.com		
<input type="checkbox"/> Lawrence Uffelman	luffelman@echo360.com		
<input type="checkbox"/> Matthew Gallow	mgallow@echo360.com		

Students can be added as Active Students in three ways:

- Automatically imported from the Learning Management System (LMS) or LDAP, through which students log in to access Echoes
- Imported in bulk via a CSV file upload to the ESS
- Manually added individually through the Users page in the ESS

More information about each of these methods is provided in the sections that follow.

Automatic Student Import from LMS or LDAP

As each student logs into the system, either through an LMS or through LDAP, the student information is captured by the ESS and the student is added as an Active Student user. Only the basic information required for student identification is added to the system. Student users have no assigned role within the ESS.

For each student automatically imported from another system, only the following fields are populated:

- First Name
- Last Name
- Username
- Email Address

This information can be edited or added to whenever appropriate.

Manual Bulk Student Import via CSV File

The ESS interface allows you to import any type of user in bulk via a properly formatted CSV file.

You can use this method to import users as Active Students. The process remains the same as for any import, except that the **Organization** and **Role** fields *must be left blank*. This tells the ESS that the imported user does not have a defined "user role" within the system (such as Instructor or Administrator) and must be tracked as an Active Student for reporting purposes.

See [Import and Export Objects](#) as well as [Import Users](#) for specific instructions on generating a proper CSV file and performing the import.

Add Individual Student Users Manually

As with all user types, the ESS interface allows you to manually add Active Students to the system one at a time. See [Add a User](#) for detailed instructions.

When creating a Student user, leave the Organization and Role selections blank. The ESS identifies any user without an organization or role as a Student. This indicates that the user does not have a defined "user role" within the system (such as Instructor or Administrator) but must be tracked as an Active Student for reporting purposes.

Manage Terms, Courses, and Sections

In this section:

- [Terminology](#)
- [Overview](#)
- [Training Echo](#)
- [Deleting Objects from the System](#)

Terminology

Echo360 recognizes that different countries use different names for some of the concepts discussed on this page. For simplicity, this page uses chiefly U.S. terminology.

You can change some terms shown in the ESS interface by changing the language preference in your browser to British English (en-gb). See [Show the ESS in British English](#) for details.

Overview

Terms, courses, and sections are created and managed in the EchoSystem Server (ESS) UI, Schedule tab. Courses and sections provide the structure in which to enable various EchoSystem features and therefore are foundational to using EchoSystem.

Details on creating, configuring, and deleting these items are found on the following pages:

- [Manage Terms](#)
- [Manage Courses](#)
- [Manage Sections](#)

Training Echo

This link below opens a training Echo, which walks you through the basics of course and section management:

[Course and Section Management](#)

Deleting Objects from the System

Prior to EchoSystem 5.3, in order to delete an object from the system, you had to delete the associated objects first. For example, to delete a course, you first had to delete all of the sections associated with the course. Now the deletion process takes care of that for you, deleting the associated items along with the selected object.

This section is designed to let you know what actually goes on when you delete an object from the EchoSystem.

Most of the deletion process happens in the background. The full process of object deletion works like this:

- The item you deleted and all of its associated objects are removed from the interface.
- The item and its associated objects are marked for deletion in the system.
- Background cleanup jobs pass through and delete all items marked for deletion.

The reason this is important to know is because the background jobs don't delete items in the same order in which they are removed from the interface. These background deletion jobs have a hierarchy of their own that allows for the efficient and complete removal of objects from the system. This means that depending on what kind of item you just deleted and the number of associated objects also being deleted, the full removal process could take from several hours to several days. Be patient.

If you want to confirm complete deletion, wait a day or two and then run an [Audit Report](#) (**Reports > Audit Report**). Click **Export** to export the data to a CSV file. Opening the resulting CSV file in a spreadsheet program like Excel allows you to sort and search the report information to determine if all of the appropriate objects were deleted.

If, after seven days, the Audit Report does not show one or more of the deleted items, contact [Customer Support](#).

✓ **Best Practice: Defragment the Database After Large-Scale Deletions**

High-volume data manipulation, including large scale deletions, may result in a high level of database fragmentation (non-continuous and/or non-full data pages), particularly where large numbers of media files were altered or removed.

While fragmentation does not cause the database to operate incorrectly, it can result in sub-optimal performance. To mitigate this issue, after a large number of objects are deleted from the system, we recommend that you defragment your database, then re-index the ESS.

Depending on your database type and configuration, defragmentation may occur as an automated background or self-repair job, or may need to be explicitly triggered. Please consult your database documentation for details. For additional information on database defragmentation, refer to the following links:

Microsoft SQL: <https://www.simple-talk.com/sql/database-administration/defragmenting-indexes-in-sql-server-2005-and-2008/>

MySQL: <http://blog.softlayer.com/2011/mysql-slow-check-for-fragmentation/>

After the database defragmentation is finished, go ahead and re-index the ESS. The easiest way to do this is to:

1. Navigate to **System > System Indexes**.
2. Click the **Re-index All on Next ESS Restart** button.
3. [Restart the ESS service](#).

Manage Terms

In this section:

- [Overview](#)
- [What Are Exclusion Dates?](#)
- [Add a Term](#)
- [Delete a Term](#)

Overview

Terms define a date range associated with an academic term, semester, trimester, etc. In any given term there may be multiple offerings of the same course, so the EchoSystem assigns sections to a term. For example, an Introduction to Economics (ECON101) course has three offerings during the Fall term. Each of these offerings is defined as a section (001, 002 and 003).

Term dates are primarily used when scheduling recurring captures for a section. Although academic term dates are likely to be specifically defined, you can capture lectures outside the defined date range.

What Are Exclusion Dates?

Most academic terms include dates when classes do not meet or exam days when no lecture is presented. We recommend that you specify these days as **exclusion dates**.

The dates entered as Excluded Dates for the term are passed through to any **schedules** created for the term. Schedulers can edit the inherited exclusion dates on the schedule if necessary. Scheduled captures will not occur on exclusion dates.

Exclusions, e.g. mid-term break / holidays	
Excluded Dates :	from <input type="text"/> to <input type="text"/> Add >> 6/1/13 - 6/2/13 remove 6/27/13 - 6/28/13 remove

Add a Term

1. Navigate to **Schedule > Terms**. The Terms page appears.
2. Click **Add**. The Add New Term page appears, as shown in the figure below.

Add New Term	
Term Information	
Name :	<input type="text"/>
EchoSystem Identifier :	d3923cfb-8bb6-4665-b3dc-298c5db6de85
Alternate Identifier :	<input type="text"/>
Organization :	<input type="text" value="Choose..."/>
Start Date :	<input type="text"/> <input type="button" value="📅"/>
End Date :	<input type="text"/> <input type="button" value="📅"/>
Exclusions, e.g. mid-term break and/or mid-term holidays	
Excluded Dates :	from <input type="text"/> to <input type="text"/> Add >>

3. Complete the page.

Field	Input
Name	Enter the term name.
EchoSystem Identifier	The globally unique identifier (GUID) used by the EchoSystem Server (ESS) to identify the object. The ESS automatically assigns this ID to each object in the system. You may use this identifier when making API or other system calls. See API Documentation for further explanation.
Alternate Identifier	The globally unique identifier (GUID) used by an external system, such as an LMS or LDAP, to identify the object. Entering an Alternate ID is optional, but allows you to use the external system's GUID (not the EchoSystem Identifier) when making API or other system calls. The Alternate Identifier must be unique for each ESS object type. See API Documentation for further explanation.
Organization	Select the parent organization or child organization from the list.
Start Date	Enter or select the first day of the term.
End Date	Enter or select the last day of the term.
Exclusion Dates	See What Are Exclusion Dates? for details. Enter or select the first exclusion date range then click Add>> . Enter additional exclusion date ranges.

- Click **Save**.
- Verify that the term appears on the term list page:

Name	Organization	Start Date	End Date	Excluded Dates
SJG spring term Duration: 4 weeks	edit echo360	5/31/13	6/28/13	6/1/13 - 6/2/13, 6/27/13 - 6/28/13

- After you add a term, you may want to add courses. See [Manage Courses](#).

Edit at Any Time

You can edit a term at any time by hovering your mouse over the term on the **Terms** page and clicking the **edit** button.

Delete a Term

When you delete a term, the following objects are also deleted:

- All sections associated with the term
- All schedules associated with the term

- All Echoes associated with the sections

The following objects are **not** deleted, as they are related to objects outside of the term and/or may be reused:

- Courses associated with the term
- Users associated with the term
- Security modules associated with the term

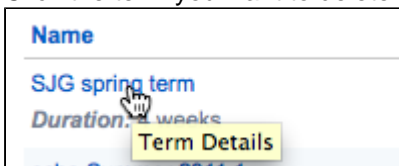
For technical details on what happens when you delete a Term, see [Deleting Objects from the System](#).

Deleting Sections is Permanent.

Once you confirm to delete the term, the term and its associated items are permanently deleted from the system. You cannot recover deleted terms, sections, schedules, or Echoes.

Procedure

1. Navigate to **Schedule > Terms**. The Terms page appears.
2. Click the term you want to delete.



3. Scroll to the bottom of the page and click **Delete**.
4. Check the box to confirm that you want to delete the term and associated objects.



5. Click **Yes, Delete**.
6. Notice the following:
 - A message at the top of the page confirms that the item has been deleted.
 - The term and associated are also removed.

For technical details on what happens when you delete a Term and how to confirm complete deletion, see [Deleting Objects from the System](#).

Manage Courses

In this section:

- [Overview](#)
- [Add a Course](#)
- [Delete a Course](#)

Overview

The EchoSystem defines a course as an academic subject being taught and captured over a period of time, such as a term, and then taught and captured again during a different period of time or term. Courses defined in the EchoSystem are effectively a container for sections, while sections (called "modules" in Great Britain) are the actual offerings of the course during a particular term.

For example, a course name might be "Introduction to Economics" with an identifier of "ECON101", with three sections configured as ECON101-001, ECON101-002, and ECON101-003.

Echo360 understands that the word "course" has different meanings at different institutions. We recognize that the meaning given to "course" may not suit every institution, particularly those outside the United States. The explanation given here is designed to show how a "Course" works within the EchoSystem hierarchy.

Add a Course

1. Navigate to **Schedule > Courses**.
2. Click **Add**. The Add New Course page appears as shown in the figure below.

Add New Course

Course Details

Name :

EchoSystem Identifier : 6ca1b3ec-bc46-443b-bd81-c36d7005d83d

Alternate Identifier :

Identifier :

Organization :

3. Enter the details as follows:
 - **Name** - The Name for the course that will appear in the ESS as well as in the EchoCenter.
 - **Identifier** - An abbreviated identifier for the course, such as ECON101 or ENG330. This also appears in the ESS and the EchoCenter.
 - **Organization** - Select the organization to which this course belongs.
 - **EchoSystem Identifier** - The globally unique identifier (GUID) used by the EchoSystem Server (ESS) to identify the object. The ESS automatically assigns this ID to each object in the system. You may use this identifier when making API or other system calls. See [API Documentation](#) for further explanation.
 - **Alternate Identifier** - The globally unique identifier (GUID) used by a learning management system (LMS) or LDAP or other external system to identify the object. Entering an Alternate ID is optional, but allows you to use the external system's GUID (not the EchoSystem Identifier) when making API or other system calls. See [API Documentation](#) for further explanation.

i A Course and a Section Can Have The Same Alternate ID

The Alternate Identifier must be unique for each ESS object type but you can use the same ID for different types. For example, you can have a course with an Alternate ID of ECON101 and a Section with an Alternate ID of ECON101. This is useful if the external system recognizes courses and sections as the same object type whereas ESS does not.

4. Click **Save**.

✓ Edit at Any Time

You can edit a course at any time by hovering your mouse over the course on the **Courses** page and clicking the **edit** link.

You may sometimes want to add many courses all at once or to change properties of many courses. You can do this efficiently by using the [Import Courses](#) feature, using a spreadsheet program such as Excel to generate a CSV file for import.

Delete a Course

When you delete a course, the following objects are also deleted:

- All schedules associated with the course.
- All sections associated with the course. Both current sections (sections that occur during the current term) and past sections (sections associated with a previous term) are deleted.
- All Echoes associated with the course.

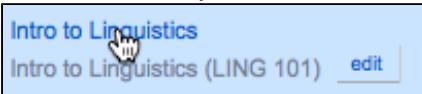
Users associated with the course are **not** deleted. For technical details on what happens when you delete a Course, see [Deleting Objects from the System](#).

⊖ Deleting Sections is Permanent.

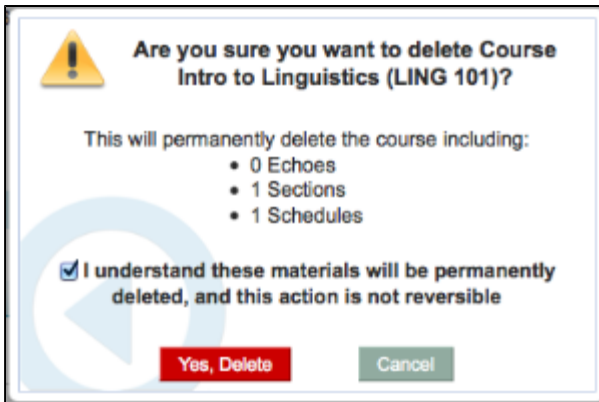
Once you confirm to delete the course, the course and its associated objects are **permanently** deleted from the system. You cannot recover deleted courses, sections, schedules, or Echoes.

Procedure

1. Navigate to **Schedule > Courses**. The Courses page appears.
2. Click the course you want to delete.



3. Scroll to the middle of the page and click **Delete**.
4. Check the box to confirm that you want to delete the course and associated objects.



5. Click **Yes, Delete**.
6. Notice the following:
 - A message at the top of the page confirms that the item has been deleted.
 - The course and its associated objects are removed.

For technical details on what happens when you delete a Course and how to confirm complete deletion, see [Deleting Objects from the System](#).

Manage Sections

In this section:

- [Overview](#)
- [Add a Section](#)
- [Section Configuration Options](#)
- [Delete a Section](#)

Overview

Sections (called "modules" in Great Britain) define the offering of a course and are associated with a term. Sections may also be called "offerings" or "courses". Sections are the items scheduled for capture. You need at least one section per course and can have as many sections as you need for that course. Each section is associated with a term. Using our "Introduction to Economics" course example, Introduction to Economics (ECON101) is the course name. This course has three sections during the Fall 2009 term and four sections during the Spring 2010 term. Each section is created within the course and assigned to the appropriate term. Captures are then based on a section.

i If You Want to Display "Module" not "Section"

You can change some terms shown in the ESS interface by changing the language preference in your browser to British English (en-gb). See [Show the ESS in British English](#) for details.

Add a Section

1. Navigate to **Schedule > Courses**. The Courses page appears.
2. Click a course link. The Course Details page appears.
3. In the *Sections* area of the page, click the **Add** button. The Add New Section page appears.
4. Configure the new section by reviewing the [configuration details below](#).
5. To [add or configure default publishers](#) for the course's section, click the **Add Publishers** button.
6. Click **Save**.

Edit at Any Time

You can edit a section at any time by hovering your mouse over the section on the **Section** page and clicking the **edit** link.

You may sometimes want to add many sections all at once or to change properties of many sections. You can do this efficiently by using the [import and export capabilities](#) with a spreadsheet program such as Excel.

Section Configuration Options

You can configure sections to enable automation and streamline the user interface. Most section defaults are inherited from the organization. Some of these default settings can be changed in the section configuration. See [Organization Settings](#) for information on configuring the organizational defaults.

The sections that follow provide details on each of the Section Configuration options available.

Section Information

The figure below shows the Section Information configuration options. Below the figure is a table that describes the settings available.

Add New Section

Section Information

Term :

Name :

EchoSystem Identifier : 2d0ae32e-28c0-4dd6-b7f8-d3eb68b562a6

Alternate Identifier :

Setting	Description	Inherited From
Term	Identifies the associated academic term for the section.	Parent Organization > Child Organization
Name	Defines the name of the section.	N/A
EchoSystem Identifier	The globally unique identifier (GUID) used by the EchoSystem Server (ESS) to identify the object. The ESS automatically assigns this ID to each object in the system. You may use this identifier when making API or other system calls. See API Documentation for further explanation.	

Alternate Identifier

The globally unique identifier (GUID) used by an external system (such as an LMS or LDAP) to identify the object. Entering an Alternate ID is optional, but allows you to use the external system's GUID (not the EchoSystem Identifier) when making API or other system calls. See [API Documentation](#) for further explanation.

i A Course and a Section Can Have The Same Alternate ID


The Alternate Identifier must be unique for each ESS object type but you can use the same ID for different types. For example, you can have a course with an Alternate ID of ECON101 and a Section with an Alternate ID of ECON101. This is useful if the external system recognizes courses and sections as the same object type whereas ESS does not.

People and Section Roles


The figure below shows the People and Section Roles configuration options. You must assign at least one person to the section.

To assign a person to a section, select the Person then a Section Role from the drop-down lists, then click **Add**.

When you [create a schedule](#) for the section, you can select a subset of the roles configured here for that particular schedule, if appropriate.

People and Section Roles		
Person	Section Role	
Debbie Allen	Instructor	Remove
R student	Teaching Assistant	Remove
<input type="text"/>	Choose... 	Add >>

The table below describes the settings available.

Setting	Description
Person	Lists all users with the Academic Staff role for the organization. You must add users to the organization first as Academic Staff before you can assign that user a section role. The person you select here can publish recordings to this section from Personal Capture (if licensed for Personal Capture) and select this section for Ad Hoc captures.
Section Role	Lists all section roles for persons assigned to this section. Options are Instructor, Student Presenter, Teaching Assistant, and Guest Presenter. <div style="border: 2px solid green; padding: 10px; margin-top: 10px;"> <p> Best Practice: Assign the Teaching Assistant Role if the Section Has Live Webcasting Enabled</p> <p>If the section may webcast live, it is good practice to assign a Teaching Assistant to the section. Some Instructors will manage chat themselves, but others prefer to assign this duty to a Teaching Assistant.</p> </div>

i A Word about "Default Presenters"

In some cases you will see the **Default Presenter** assigned to a section or schedule. This occurs when the only person assigned to the section has been deleted from the system. Every section **MUST** have a person assigned, and to fill the void, the ESS automatically assigns the Default Presenter. The Default Presenter is then also passed through to scheduled captures for the section.

People and Section Roles	
Person	Section Role
Default Presenter	Instructor

The Default Presenter is not a real person; it is a system generated user and cannot be deleted. Once you assign a new person to the section (to replace the deleted user), you can remove the Default Presenter from the section, and edit any upcoming Schedules to use the assigned person and not Default Presenter.

To see which schedules have Default Presenters assigned, navigate to **Schedule > Schedules** and then:

- Filter the list and sort by Academic Staff.
- Specify "Default Presenter" in the Keyword Search text box.

Changing only a few schedules can be done individually. See [Manage Schedules with Default Presenter as Instructor](#). However if a large number of schedules must be changed, you may want to use the [Import Schedules](#) feature.

Media Settings

Media Settings
<i>These settings control the automated deletion of raw media files and media file copyright insertion. Change these settings on a section's page to override the global defaults.</i>
Delete Original Media? : <input checked="" type="checkbox"/>
Days to Keep Originals : <input type="text" value="120"/>

Setting	Definition	Inheritance
Delete Original Media?	See Media Settings for the organization .	Parent Organization > Child Organization > Section
Days to Keep Originals	See Media Settings for the organization .	Parent Organization > Child Organization > Section

Echo Deletion Settings

The figure below shows the Echo Deletion Settings options. Below the figure is a table that describes the settings available.

Echo Deletion Settings	
<i>These settings control the automated deletion of echoes. Change these settings on a section's page to override the global defaults.</i>	
Automatically delete Echoes? :	<input checked="" type="checkbox"/>
Days to Keep Echoes :	<input type="text" value="120"/>

Setting	Definition	Inheritance
Automatically Delete Echoes?	See Media Settings for the organization .	Parent Organization > Child Organization > Section
Days to Keep Echoes	See Media Settings for the organization .	Parent Organization > Child Organization > Section

Echo Defaults

The figure below shows the Echo Defaults configuration options. Below the figure is a table that describes the settings available.

Echo Defaults	
<i>This setting controls the default presentation state. Presentations can either be made Available or Unavailable by default. Change these settings on a section's or schedule's page to override the global defaults.</i>	
Echoes Initially Unavailable? :	<input type="checkbox"/>

Setting	Definition	Inherited From ...
---------	------------	--------------------

Echoes Initially Unavailable?	See Echo Defaults settings for the organization . <div style="border: 1px solid orange; padding: 10px;"><p>⚠ Live Streaming Unavailable if Checked</p><p>If you are configuring this section for Live Webcasting, this box must be unchecked. If only certain schedules for this section are to be live webcasts, you can uncheck this box for those particular schedules. See the Echo Defaults section of Create a New Schedule for more information.</p></div>	Parent Organization > Child Organization
--------------------------------------	---	--

Branding

All branding settings are inherited from the organization. See [Branding settings for the organization](#) for descriptions of the settings.

⚠ Enforcing copyright acknowledgment prevents Echo playback from embedded EchoPlayers. If you or your users plan to embed EchoPlayers for this section, the Enforce Copyright Acknowledgement box must be unchecked.

Branding

These settings control the optional colors, images and copyright text used to brand the Echo player for your institution. There are also settings to add a short video clip at the beginning and end of media files. Change these settings on a section's page to override the global defaults.

Copyright Text :

Enforce Copyright Acknowledgement :

Player Metadata Font Color : <input style="width: 80%;" type="text" value="#999999"/>	Player Title Font Color : <input style="width: 80%;" type="text" value="#ffffff"/>
Player Banner Background Image : <input type="button" value="Choose..."/>	Player Logo Image : <input type="button" value="None Available"/>
Player Logo Hover Text : <input style="width: 80%;" type="text"/>	Player Logo Click URL : <input style="width: 80%;" type="text"/>

Intro Clip : <input type="button" value="None Available"/>	Outro Clip : <input type="button" value="None Available"/>
--	--

Watermark Image :

EchoCenter

All EchoCenter defaults for the section are inherited from the Organization, except for External System IDs, which are specific to each section.

The figure below shows the EchoCenter configuration options. Below the figure is a table that describes the settings available. Additional details are available in the [EchoCenter](#) section of the [Organization Settings](#) page.

EchoCenter

These settings control the behavior of the EchoCenter.

Disable at end of Term? :

Enable Audio File downloads : <input type="checkbox"/>	Enable Video File downloads : <input type="checkbox"/>
--	--

Enable EchoPlayer downloads : <input type="checkbox"/>	
--	--

External System Id : <input style="width: 80%;" type="text"/>	External System Id : <input style="width: 80%;" type="text"/>
External System Id : <input style="width: 80%;" type="text"/>	External System Id : <input style="width: 80%;" type="text"/>
External System Id : <input style="width: 80%;" type="text"/>	External System Id : <input style="width: 80%;" type="text"/>

EchoCenter Logo Image :

Setting	Definition	Inherited From
Disable at end of Term?	If checked, the EchoCenter page for the course will be disabled when the term ends.	Parent Organization > Child Organization
Enable Audio File downloads	If checked, the EchoCenter page provides an Audio file (Podcast) download link. It appears on the Info tab for an Echo. This allows users to download the audio recording of the Echo for offline listening.	Parent Organization > Child Organization

<p>Enable Video File downloads</p>	<p>If checked, the EchoCenter page provides an Audio file (Vodcast) download link. It appears on the Info tab for an Echo. This allows users to download the video of the Echo recording for offline viewing.</p>	<p>Parent Organization > Child Organization</p>
<p>Enable EchoPlayer downloads</p>	<p>If checked, the EchoCenter page provides an EchoPlayer download link. It appears on the Info tab for an Echo. This allows users to download the full EchoPlayer media experience along with the content of the Echo. This is useful for instances where available internet speeds for students are not fast enough to allow streamed viewing over the internet.</p>	<p>Parent Organization > Child Organization</p>
<p>External System Id</p>	<p>External System Id fields are not inherited from the organization. They appear only here, on the section page.</p> <p>If you have a learning management system (LMS), populate this field with the LMS ID for the course or section.</p> <p>If you are using LTI-Based Publishing, population of this field is required in order for the ESS to provide the appropriate content to the LMS user. See Configure ESS Sections to Publish to LMS Courses for a table that describes where in the LMS to find the course or section ID to enter into this field.</p> <p>Multiple External System Id fields are available in the event you need more than one. For example you may have multiple sections in the LMS that link to a single ESS section. Or you may use more than one LMS that needs to connect to a single ESS section.</p>	<p>N/A</p>

EchoCenter Logo Image	Allows you to select an image that will appear on EchoCenter pages. You must first add the image to the branding repository. See Manage the Branding Files Repository .	Parent Organization > Child Organization
------------------------------	---	--

EchoPlayer

All EchoPlayer settings are inherited from the organization. See [EchoPlayer settings for the organization](#) for details about the settings.

EchoPlayer

These settings control which applications are available in the EchoPlayer.

Discussions : Feedback :

Sharing :

Product Groups

The Product Groups setting lets you set a default product group for the section, overriding the organization (global) defaults. You might want to do this when:

- You know that a certain section will always use a specific product group as a normal part of its schedule.
- You have configured a special events section to use for live webcasts of specific events. In this case, you can configure those sections to use a live-capable product group by default.

Select a product group that is likely to be used for most if not all schedules for the section.

Product Groups

These settings control the default product groups created for each capture. Change these settings on a section's or schedule's page to override the global defaults.

Product Group :

The Product Groups default setting is inherited from the organization. See [Product Groups settings for the organization](#) for details about these inheritances.

Security Settings

The Security Settings area of the Edit Section page shown in the figure below, allows you to select a security module for the section. This determines how (or if) students will be authenticated. The options in the list are determined by what [Security Modules](#) you have configured. The [Security Setting configured for the Organization](#) appears as the default.

If you do not require authentication, students can view Echoes or live webcasts easily, but chat and other [collaboration capabilities](#) are disabled.

Security Settings

These settings control the security.

Security Module : Allow All ⬇

Allow All does not authenticate users for access, and therefore implements the Standard version of the EchoCenter, without collaboration capabilities or statistics information.

Authentication Required uses either the ESS user information or an external [Trusted System](#) such as [CAS](#) or [Shibboleth](#) to authenticate users. You can also configure the LMS (like Blackboard or Moodle) as a trusted system to authenticate users. This configuration requires users to access EchoCenter through the LMS.

LDAP allows you to use an external LDAP system for user authentication. See [LDAP Authentication](#) for more information.

i LTI-Based Publishing Requires Authentication

If you are using [LTI-Based Publishing](#), you **MUST** use either LDAP or Authentication Required as the security module for sections to be presented through an LTI integrated system.

Seamless Only requires the use of an LMS (such as Blackboard or Moodle) or other third party system to pass through user credentials and allow user access.

- With Seamless Only, users can only access Echoes through the third party system and *only* if the appropriate building blocks or plug-ins have been installed. Echo360 provides downloads for supported systems via the [Customer Portal](#).

If you select an LDAP security module, additional fields appear, as shown in the below figure. The section inherits the default Tree 1 settings from the [LDAP security module](#).

Security Settings

These settings control the security.

Security Module : echo360-ldap ⬇

Security Settings – Tree 1

This is the primary LDAP tree that will be evaluated.

Group Attribute Value : <input style="width: 100%;" type="text"/>	Base Group DN : <input style="width: 100%;" type="text" value="ou=echo360, dc=univ"/>
Search Group Subtree : <input checked="" type="checkbox"/>	Extra User Attribute Name : <input style="width: 100%;" type="text"/>
Required Extra User Attribute Value : <input style="width: 100%;" type="text"/>	

Support

The Support settings are inherited from the organization. See [Support settings for the organization](#) for details about the settings.

Support	
<i>Help information can optionally be provided. If this information is entered, it will be provided to users in the Echo player when presentations are viewed. Change these settings on a section's page to override the global defaults.</i>	
Support URL Text : <input type="text"/>	Support Phone : <input type="text"/>
Support URL : <input type="text"/>	

Upload Settings

The Upload Settings allow you to configure and enforce file size quotas for each section. The quota applies to instructor-uploaded files like external media files and Personal Capture recordings. Section upload quotas let you limit the amount of total storage that can be used for these files.

Be advised that quota size includes the **total** of the processed AND completed media files (the /content AND the /flash folder on the file system), not just uploaded files. Take this into consideration when calculating quota allotments per section.

All upload settings are inherited from the organization. See [Upload Settings for the organization](#) for additional details about the settings.

Upload Settings	
<i>These settings control the upload of media files via the External Media tab in the EchoSystem Server and via Echo360 Personal Capture. Change these settings on a section's page to override the global defaults.</i>	
Enforce section upload quotas : <input type="checkbox"/>	Section upload quota (MB) : <input type="text" value="20,480"/>

Configure Publishers

The bottom of the Section page contains an Add Publisher button, that allows you to assign one or more publishers for the section.

After you add a publisher to a section in the ESS, you must still add the **publisher's** name for the course to each section. This means that you must:

1. Find the publisher's name for the section. Each publisher has a different protocol and format for a section name.
2. Add the publisher's name to the ESS.

For more information on this process, see:

- [Add Blackboard to Each Section](#)
- [Add Blackboard CE/Vista to Each Section](#)
- [Add Moodle to Each Section](#)

After you add a publisher to a section, the publisher is listed, as shown in the following figure.

Configured Publishers		
Name	Publisher Type	Configuration Complete?
CMS ID: testBlackboard 9	Blackboard Learning System Enterprise (6-9)	Yes
Moodle	Moodle Learning System	no

[Add Publisher](#)

The table below describes the Configured Publishers settings.

Setting	Definition
Name	This column displays the name and configuration information for the publisher.
Publisher Type	This column displays the publisher type for the selected publisher.
Configuration Complete?	This column displays the status of the configuration. It reads "Yes" if the section specific information for the publisher is entered and "No" if this information is not yet entered. Hover over the publisher and click the edit link to set the section specific information for the publisher.
Add Publisher	This button opens the Add Publisher page.

Delete a Section

When you delete a section, the following objects are also deleted, because they exist specifically for the section:

- All schedules associated with the section
- All Echoes associated with the section

The following objects are **not** deleted, as they exist independently of the section:

- Courses associated with the section
- Users associated with the section
- Security modules associated with the section

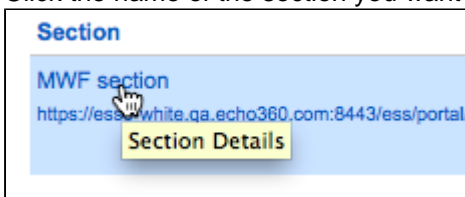
For technical details on what happens when you delete a Section, see [Deleting Objects from the System](#).

Deleting Sections is Permanent.

Once you confirm to delete the section, the section and its associated schedules and Echoes are permanently deleted from the system. You cannot recover deleted sections, schedules or Echoes.

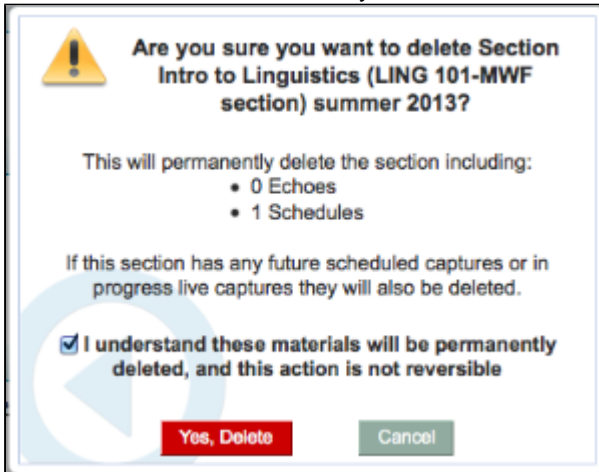
Procedure

1. Navigate to **Schedule > Courses**. The Courses page appears.
2. Click the course with the section you want to delete.
3. Click the name of the section you want to delete.



4. Scroll to the bottom of the page and click **Delete**.

5. Check the box to confirm that you want to delete the section and associated objects.



6. Click **Yes, Delete**.
7. Notice the following:
 - A message at the top of the page confirms that the item has been deleted.
 - The section its associated objects are removed.

For technical details on what happens when you delete a Term and how to confirm complete deletion, see [Deleting Objects from the System](#).

Manage Ad Hoc Captures

In this section:

- [Overview](#)
- [Ad Hoc Captures with "Curtains"](#)
- [Deleting Ad Hoc Captures](#)

Overview

Ad hoc captures are not scheduled through the EchoSystem Server user interface (ESS UI) but rather started and controlled through the ad hoc web interface, accessed through the capture device or the Classroom Capture system tray dialog box. There are two options for ad hoc capture:

- **Automated Ad Hoc Capture.** In this case, the Academic Staff member logs in to the capture device using an ESS user account. The Academic Staff member can choose from a list of assigned sections to start the capture. This method completely automates the rest of the workflow after capture by applying the settings defined for the section. For example, if the section is set to create Podcast, Vodcast, and EchoPlayer products, and to publish to Blackboard, the automated ad hoc capture assumes those settings.
- **Basic Ad Hoc Capture.** Basic ad hoc captures are similar to automated ad hoc captures but are missing several key details of the capture. This requires manual processing (to supply the missing details) within the ESS UI after the capture is complete. This option is available to Academic Staff members if they do not have a section assigned or if they choose to capture instruction not related to a specific section. Basic ad hoc captures can also be run as the generic user. The generic user is a shared log in to the capture device. After you run a basic ad hoc capture, you may want to associate the capture with a section. This means that students in the section can see the ad hoc capture on the section page in an LMS or on the EchoCenter page for the section.

Academic Staff can create ad hoc captures through:

- The Ad Hoc Web Interface, using the URL of the capture device;
- The [Classroom Capture](#) interface (if installed in the classroom);
- Using the [Device Monitor](#) (if installed in the classroom).

You may want to receive alerts about new ad hoc captures being available for processing, if you do not already receive such alerts. See [View and Set Alerts](#).

When they are no longer needed, [ad hoc captures can be deleted](#).

See the pages in this section for further instructions:

- [Server Configuration for Ad Hoc Capture](#)
- [Run an Automated Ad Hoc Capture](#)
- [Run a Basic Ad Hoc Capture](#)
- [Recover an Ad Hoc Capture](#)

Ad Hoc Captures with "Curtains"

In rare situations, ad hoc captures result in Echoes with black bands on either side of the display area ("curtains"). This may occur if:

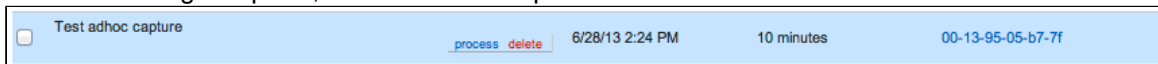
- You are using the EchoSystem SafeCapture HD
- It is set to capture with the widescreen aspect ratio

See [When Using the Widescreen Aspect Ratio on the Display Input](#).

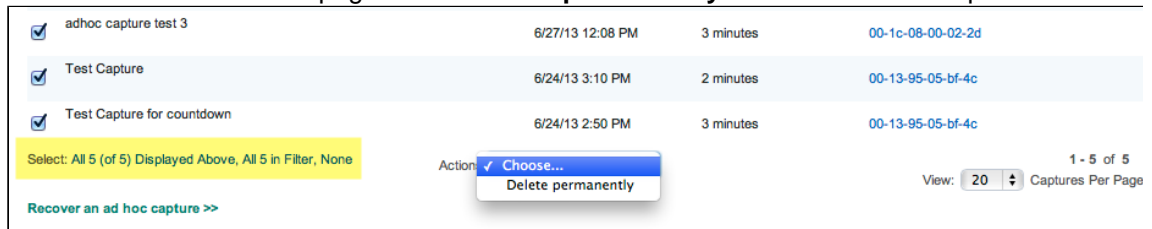
Deleting Ad Hoc Captures

If a capture is no longer needed, you can delete it.

1. Navigate to **Echoes > Ad Hoc Captures**.
2. Sort and/or Filter the list to find the captures you want to delete.
3. Do one of the following:
 - To delete a single capture, hover over the capture and click **delete**.



- To delete multiple Ad Hoc Captures:
 - a. Check the captures you want to delete.
 - b. Scroll to the bottom of the page. Select **Delete permanently** from the Actions drop-down list.



4. Confirm that you want to delete the item(s).
5. Notice the confirmation message at the top of the page.
6. Refresh the page. Notice that:
 - The Ad Hoc Capture is deleted from the list.
 - The number of items listed for the tab is smaller.

Server Configuration for Ad Hoc Capture

In this section:

- [Overview](#)
- [Automated Ad Hoc Capture](#)
- [Basic Ad Hoc Capture](#)

Overview

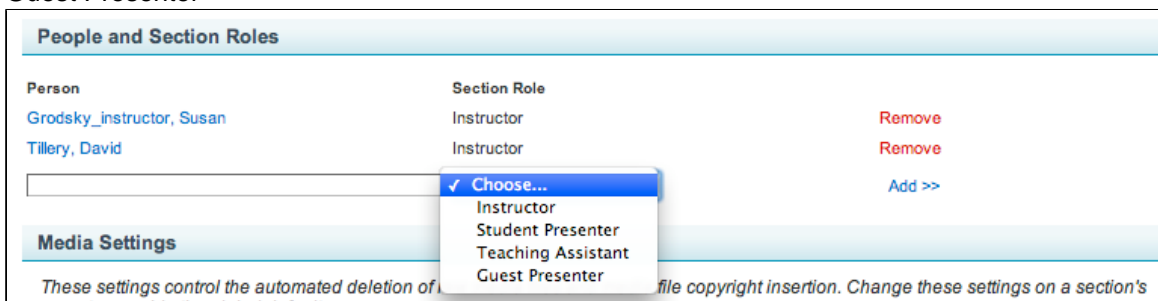
All venues (rooms) must have a capture device, such as a capture appliance or Classroom Capture that is properly licensed in order to perform ad hoc captures. See [License Venues](#).

Automated Ad Hoc Capture

The automated ad hoc capture workflow is driven by the association of Academic Staff members to sections. This association is done in the ESS UI. These steps assume you have created sections and [Academic Staff](#).

The Academic Staff member must have a section assignment to run automated ad hoc captures. There are also several other settings applied to sections to drive the ESS processing and publishing automation. This section is specific to Academic Staff member and section assignment. For details on the other settings, see [Manage Sections](#).

1. In the ESS UI, navigate to **Configuration > Schedule**.
2. Click the Course containing the section to assign.
3. Edit the desired **Section**.
4. In the **People and Section Roles** portion of the page, shown in the below figure, use the **Person** and **Section Role** drop-down lists to assign an Academic Staff member to the section, along with their role. Section Role choices include:
 - Instructor
 - Student Presenter
 - Teaching Assistant
 - Guest Presenter



5. Click **Add**, located to the right of your selections.
6. When finished, save the changes.

Basic Ad Hoc Capture

To run a basic ad hoc capture, use the generic user name and password to log in to the capture device via the ESS UI. The generic user is a shared log in to the capture device.

To specify the authentication settings for all capture devices:

1. Navigate to **System > Device Defaults**.
2. Click **Edit**.
3. In the Local Web User Interface section, set the Generic User Name/Password. You can now use this information to log in to any capture device in any venue.

You can override this user name and password for a capture device in a single room as follows.

1. Navigate to **Configuration > Rooms**.
2. Click the **edit** button in the row corresponding with the room you want to edit. The Edit Room page appears.
3. In the Local Web User Interface section for the capture device type(s) you have licensed, edit the Generic User Name/Password.

Run an Automated Ad Hoc Capture

In this section:

- [Overview](#)
- [Procedure](#)

Overview

Automated Ad Hoc Captures can be run either from an EchoSystem capture appliance or from a podium PC with Classroom Capture software installed. The instructions below apply to running an automated ad hoc capture from an EchoSystem capture appliance. See [Start an Ad Hoc Capture](#) for instructions on creating an ad hoc capture from the Classroom Capture system tray dialog.

When you run an automated ad hoc capture, you associate the capture with a section before you begin. This means that when the capture is processed, it will be listed with all other Echoes for the section (in an LMS or on an EchoCenter page) and students will be notified of it in the usual ways.

 The capture device must be online with the ESS for automated ad hoc captures to function.

Who can do this?

The user must be assigned to the section and must be one of these Academic Staff roles:

- Instructor
- Teaching Assistant
- Student Presenter

Procedure

1. Browse to the Ad Hoc Web Interface URL for the device. The URL protocol and port are defined by the device configuration. See [About Devices](#) for details. In most cases the URL is based on IP address as in this example:

```
https://192.168.77.110:8443
```

2. Log in with the user name and password for the Academic Staff user, as shown in the figure below.

A screenshot of a login form with two input fields. The first field is labeled 'User Name:' and contains the text 'jsmith'. The second field is labeled 'Password:' and contains seven asterisks '*****'.

3. Click **Ad Hoc Capture** on the capture page.
4. Enter a title and duration for the capture.
5. Select the appropriate section to capture. The capture source options (audio, video, display) are automatically selected based on the product settings for the section. For example, if you set the section to create vodcast, then audio and display are captured. If you set the section to create EchoPlayer, then audio, video, and display are captured.
6. Click **Start Ad Hoc Capture**. The capture stops automatically when the capture duration is complete. The ESS processes the capture according to the settings for the section.

Run a Basic Ad Hoc Capture

In this section:

- [Overview](#)
- [Capture an Ad Hoc Recording](#)
- [Associate the Recording with a Section](#)

Overview

Basic Ad Hoc Captures can be run either from an EchoSystem capture appliance or from a podium PC with Classroom Capture software installed. The instructions below apply to running a basic ad hoc capture from an EchoSystem capture appliance device. See [Start an Ad Hoc Capture](#) for instructions on creating an ad hoc capture from the Classroom Capture system tray dialog box.

When you run a basic ad hoc capture, you do not associate the capture with a section. This means that you must associate the capture with a specific section manually. See [Associate the Recording with a Section](#).

Capture an Ad Hoc Recording

1. Browse to the Ad Hoc Web Interface URL for the device. The URL protocol and port are defined by the device configuration. See [About Devices](#) for details. In most cases the URL is based on the IP address. For example:

`https://192.168.77.110:8443`

2. Log in with the generic user, as shown in the figure below. For example: Instructor.

A screenshot of a login form with two input fields. The first field is labeled 'User Name:' and contains the text 'instructor'. The second field is labeled 'Password:' and contains seven asterisks '*****'.

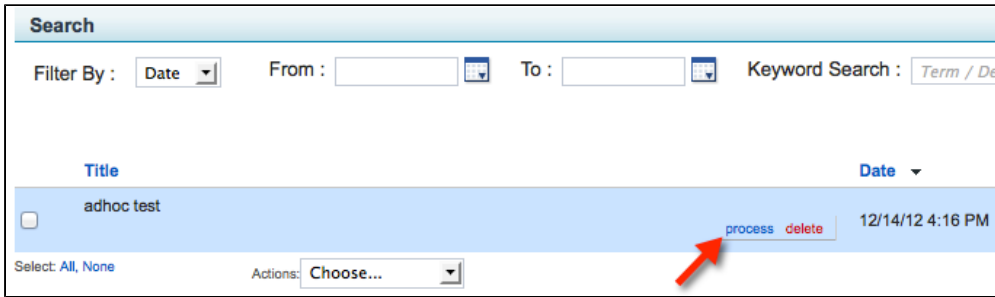
3. Click **Ad Hoc Capture** on the capture page.
4. Enter a description and duration for the capture.
5. Select the appropriate capture source option. For example: display-audio-video
6. Click **Start Ad Hoc Capture**. The capture stops automatically when the capture is complete and has been uploaded to the ESS.

Associate the Recording with a Section

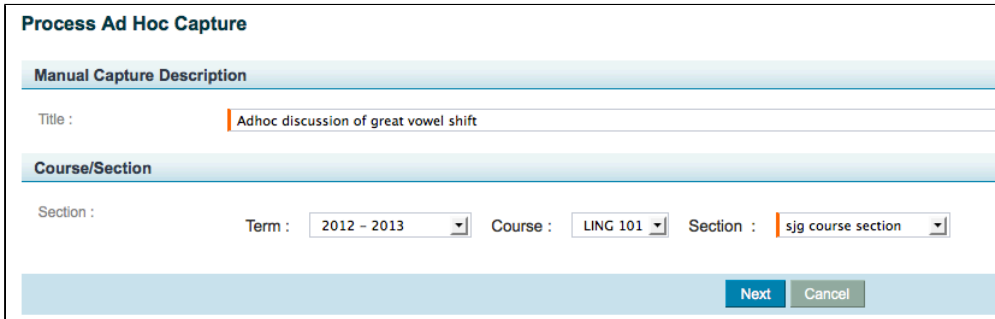
When you associate a recording with a section, students in the section can see the ad hoc capture on the section page in an LMS or on the EchoCenter page for the section. You will also see it in the **Echoes > Echoes** list.

You may need to consult with an Instructor or Teaching Assistant to determine the correct section.

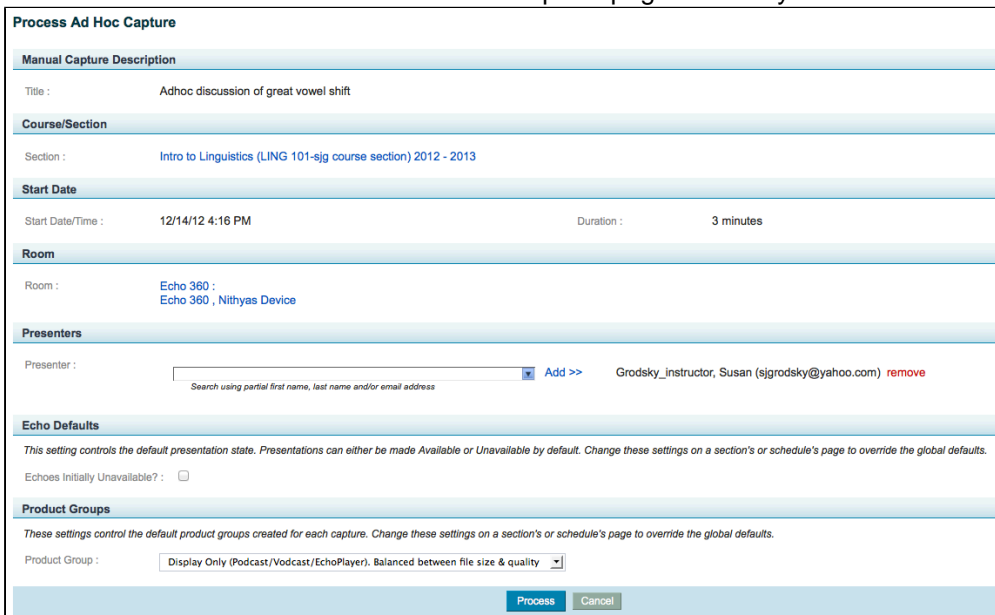
1. Log in to the ESS.
2. Navigate to Echoes > Ad Hoc Captures.
3. Hover over the recording.
4. Click **process**.



5. Complete the fields in the Process Ad Hoc Capture page. Notice that you can change the title of the recording to make it more intuitive for students.



6. Click **Next**.
7. Review the details on the Process Ad Hoc Capture page. You may want to add a Presenter, for example.



8. Click **Process**.

9. Notice the message confirming that the recording has been submitted for processing. In time, the recording will appear:
- In the **Echoes > Echoes** list
 - On the course page of an LMS (if an LMS is used)
 - On the EchoCenter page for the section

Recover an Ad Hoc Capture

In this section:

- [Overview](#)
- [When to Use This Procedure](#)
- [Before You Begin](#)
- [Procedure](#)

Overview

This procedure shows how to recover an ad hoc recording that was captured successfully by a capture appliance, but was later lost, damaged, or inadequately processed.

Ad Hoc Captures Only

This process can only be used with ad hoc captures. You can use the EchoSystem Server (ESS) [recover](#) and [reprocess](#) methods for scheduled recordings.

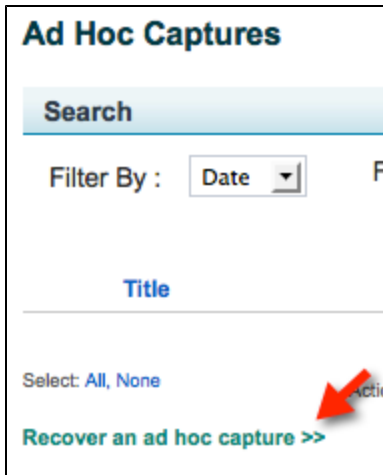
You might need to recover an ad hoc recording when one of the scenarios listed below occurs.

- You receive errors in the capture and the [recover](#) and [reprocess](#) methods are not successful
- You accidentally deleted the capture presentation media files (the files created by the media processor that are streamed to viewers)
- You accidentally deleted or do not have the raw media (h264 and aac) files created by the capture appliance
- The disks (perhaps a RAID array) that store existing presentations crash

When to Use This Procedure

This procedure on this page shows you how to log in to the capture appliance and use a simple interface to re-upload a capture from the appliance to the ESS.

If this procedure does not work, you can try the more cumbersome process described in this Knowledge Base article: [Perform an ad hoc recovery](#). This process uses the **Recover an ad hoc capture** link on the **Echoes > Ad Hoc Captures** page.



You can use this process to reprocess media files for any capture except a Personal Capture recording.



Accessing the Knowledge Base

You will need a customer portal login to access the Knowledge Base. Contact [Technical Support](#) if you need a login.

Before You Begin

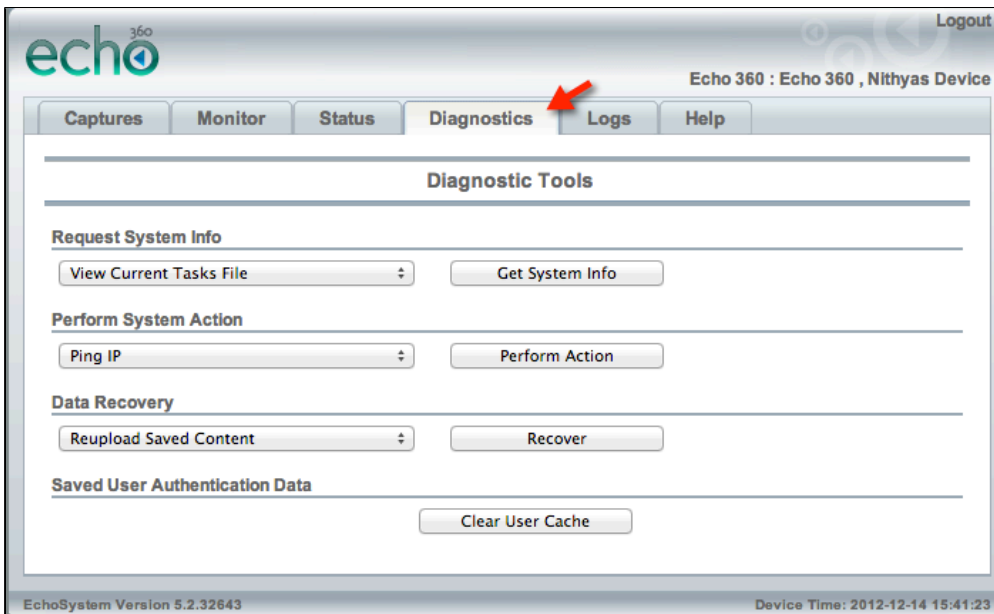
Before using this process, try to recover the capture via the Monitor tab.

1. Navigate to **Monitor > Captures**.
2. Hover over the capture.
3. Look for the recover option

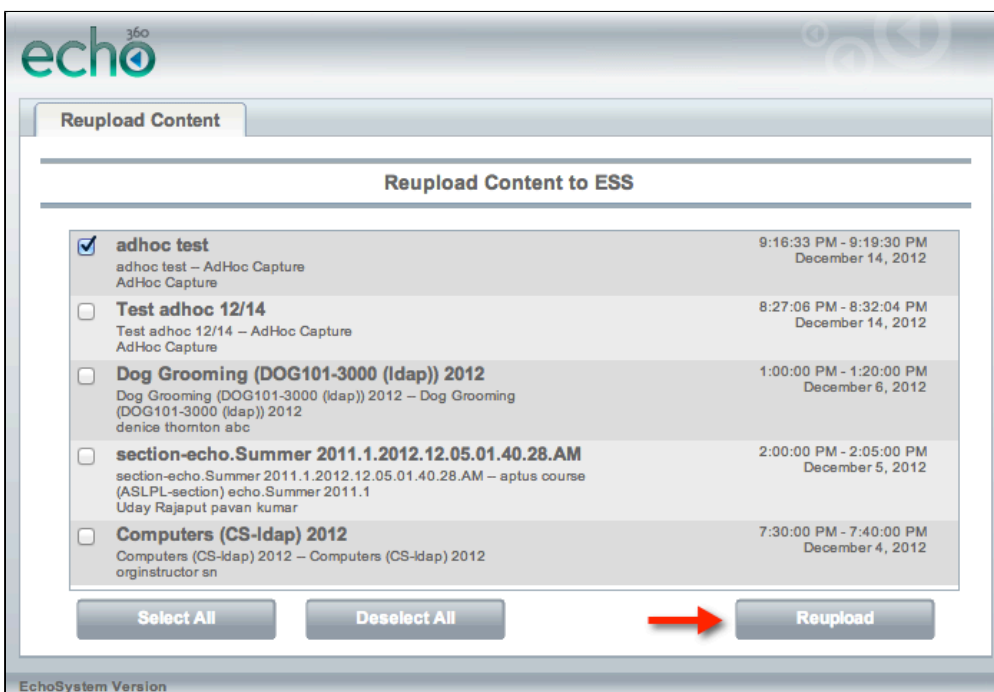
If you do not see it, continue with this procedure.

Procedure

1. Log in to the capture appliance as an advanced user (example: <https://10.3.10.123:8443/advanced>).
 - Detailed instructions for the [EchoSystem Capture Appliance](#) (also called the first generation capture appliance or 1G capture appliance)
 - Detailed instructions for the [EchoSystem SafeCapture HD](#) (also called the SafeCapture HD, second generation capture appliance, or 2G capture appliance)
2. Select the **Diagnostics** tab.



3. Click **Recover**.
4. Select the recordings you want to recover and click **Reupload**.



5. Notice a message from the server confirming a successful upload. This means that the capture has been recovered from the capture appliance. What happens next depends on the previous state of the capture.
 - If the capture was an automated capture, it will be associated with the proper section. See [Run an Automated Ad Hoc Capture](#).
 - If the capture was a basic ad hoc capture and **had not** been assigned to a section, it is in ad hoc recovery tab (**Echoes > Ad Hoc Captures**). From there, you will have to associate it with the proper section manually. See [Run a Basic Ad Hoc Capture](#).
 - If the capture was a basic ad hoc capture and **had** been assigned to a section, it will be associated with that section.

i If You See a Signature Mismatch Error

In rare cases, the re-upload process fails with a signature mismatch error. This occurs if you have recently done a clean install of the ESS and manually reattached the capture appliances. You may be able to recover ad hoc captures using the more cumbersome process described in this Knowledge Base article: [Perform an ad hoc recovery](#).

Manage the EchoPlayer

Administration of the EchoPlayer involves making sure users are seeing what they need to see in the EchoPlayer and enabling licensed features such as discussions or live chat. Pages in this section of the documentation include:

- [EchoPlayer Configurations](#)
- [Embedding the EchoPlayer](#)
- [Variable Speed Playback in the EchoPlayer](#)

EchoPlayer Configurations

In this section:

- [Overview](#)
- [Details](#)

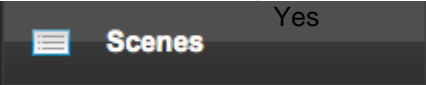
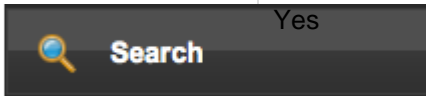

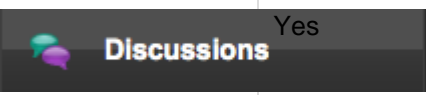


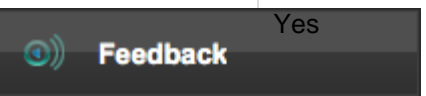
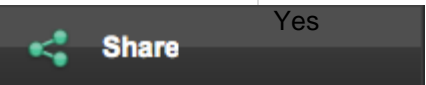
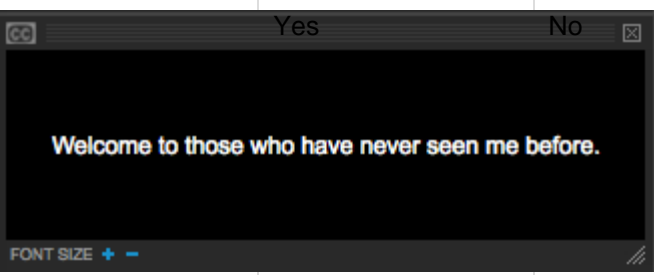
Overview

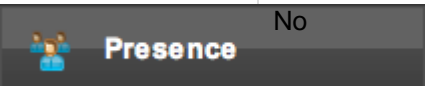
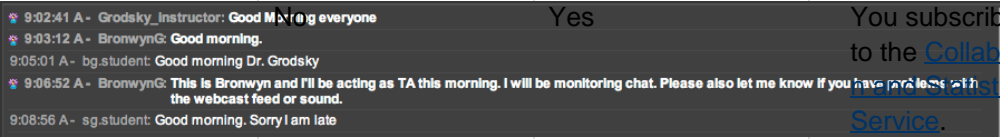
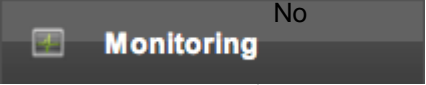

Students, Instructors, and Teaching Assistants (called "users" collectively) may see different versions of the EchoPlayer, depending on a number of factors. These include:

- **What** they are viewing:
 - Echoes have a particular set of features.
 - Live webcasts don't have some features that appear in Echoes (such as the Forward, Back, and Stop buttons) but have others that don't appear in Echoes (such as the presence and chat applications).
- Their **role**:
 - All users see the same EchoPlayer when viewing Echoes.
 - Students and Instructors/Teaching Assistants see different interfaces when viewing live webcasts.
- Subscription status. Users will see certain applications if you are subscribed to the [Collaboration and Statistics Service](#).
- **Section** configuration. You can enable or disable the Discussions, Feedback, and Share applications for a section.
- **Logged in** status. Some applications appear only if the user is logged in.
- **Closed captioning or search indexing applied**. The Scenes button may or may not appear.
- **Closed captioning**. Some Echoes have closed captioning applied and others do not.

Details

The table below shows which features are available for each configuration.

Feature	Widget	Appears in Echoes?	Appears in live webcasts?	Appears if:
Scenes		Yes	No	Always appears.
Search		Yes	No	Closed captioning or search indexing has been applied.
Bookmarks		Yes	No	<ul style="list-style-type: none"> You subscribe to the Collaboration and Statistics Service. The user is logged in.
Discussions		Yes	No	<ul style="list-style-type: none"> You subscribe to the Collaboration and Statistics Service. It is enabled for the section. See EchoPlayer. The user is logged in.
Info		Yes	Yes	Always appears.
Help		Yes	Yes	Always appears.
Feedback		Yes	Yes	It is enabled for the section. See EchoPlayer .
Share		Yes	Yes	It is enabled for the section. See EchoPlayer .
Closed Captioning pane		Yes	No	Closed captioning has been applied.

Presence		No	Yes	<ul style="list-style-type: none"> You subscribe to the Collaboration and Statistics Service. The user is logged in.
Chat pane		No	Yes	<ul style="list-style-type: none"> You subscribe to the Collaboration and Statistics Service. The user is logged in.
Monitoring		No	Yes	The user is logged in as Academic Staff.
Capture Control		No	Yes	The user is logged in as Academic Staff.

Embedding the EchoPlayer

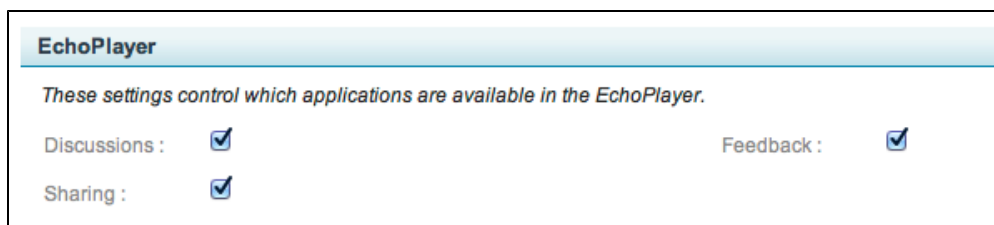
In this section:

- [Embedding the EchoPlayer](#)
- [Authentication and the Embedded EchoPlayer](#)
- [Features of the Embedded EchoPlayer](#)

Embedding the EchoPlayer

In addition to the embeddable EchoCenter link that has been available for some time, EchoSystem now provides an embeddable EchoPlayer link, allowing users to embed the EchoPlayer for a specific Echo into an LMS, or instructor's webpage, or other external location.

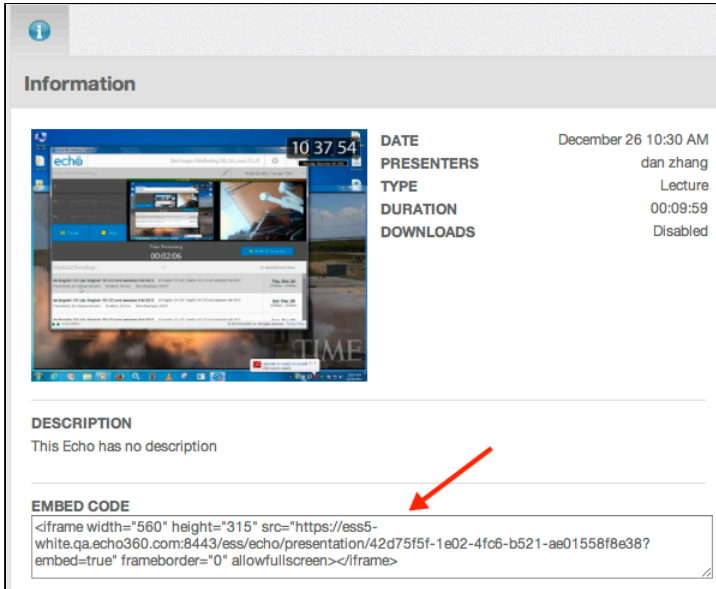
The Embed Code is enabled for Sections through the **Sharing** checkbox in the [EchoPlayer configuration for the section](#), shown in the below figure.



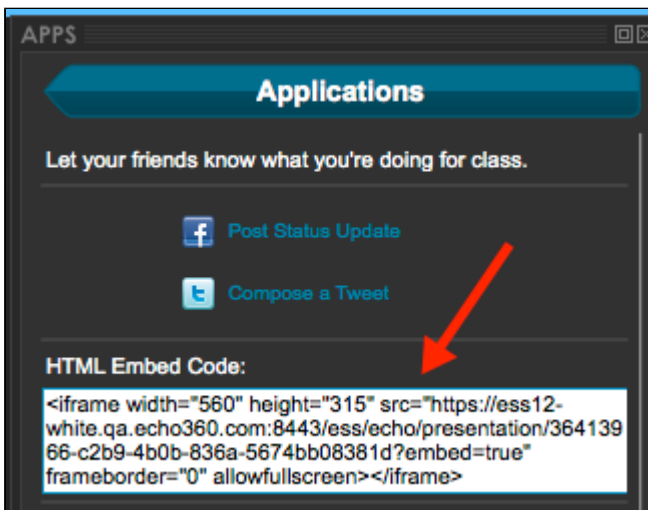
The embedded EchoPlayer does not work on mobile, but mobile users will be provided a link to launch the full EchoPlayer.

The embeddable link, called **Embed Code** is available as follows:

- On the **Info** tab for the Echo in the EchoCenter



- By clicking the **Share** button in the EchoPlayer



The embeddable EchoPlayer link functions exactly as a YouTube embeddable link, only instead of the YouTube URL for a video, it contains the ESS URL for the specific Echo. Copying and pasting the Embed Code into an external location displays the selected Echo within the EchoPlayer on the webpage, providing the full EchoPlayer experience for the user.

⚠ Copyright Check Prevents Embedded EchoPlayer Playback

If you enforce copyright acknowledgement for Echoes, you cannot also use embedded EchoPlayers for Echo playback. This setting prevents Echoes from being played through embedded EchoPlayers. Copyright Acknowledgement is set in the Branding section of the [Organization settings](#) or [Section settings](#) forms (sections inherit the organization settings but can be changed on a per-section basis).

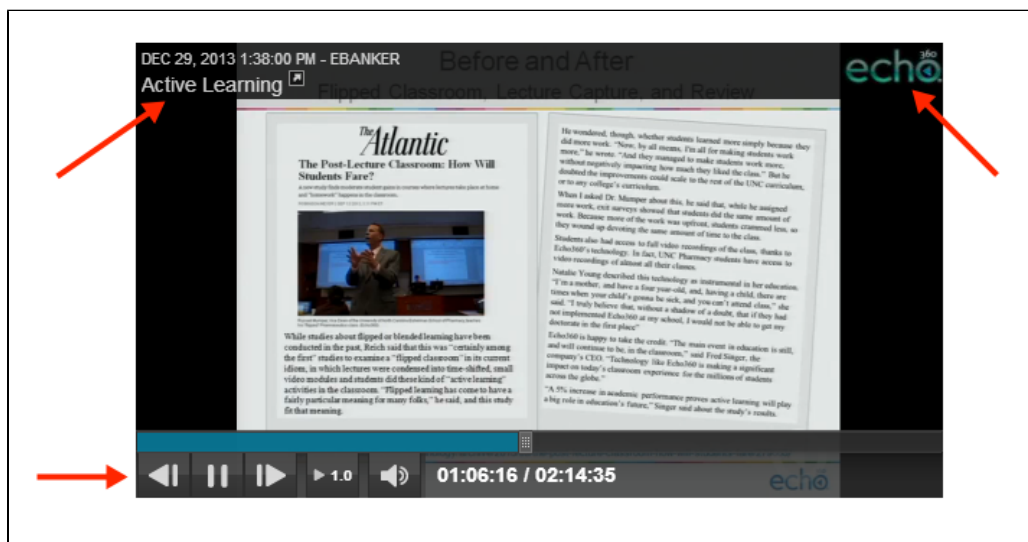
Authentication and the Embedded EchoPlayer

If the section requires user credentials in order to view Echoes, a login screen appears in the EchoPlayer frame for the embedded player. If Seamless authentication is configured, users who are already authenticated through the LMS will not have to re-enter their credentials.

If you are [gathering usage statistics](#) on student views, know that viewers who are authenticated through the embedded EchoPlayer are captured by EchoSystem's usage statistics gathering mechanism. You will still get that information even though users do not have to access the full EchoCenter.

Features of the Embedded EchoPlayer

The embedded EchoPlayer looks and functions very similarly to the full EchoPlayer, but without having to launch the EchoPlayer in its own browser window or tab. The below figure shows an embedded EchoPlayer in a web page, along with identifying some of the capabilities. These items are described in more detail below the figure.



The arrows in the above figure identify the following items in the embedded EchoPlayer:

- Clicking the section title or launch arrow in the header opens the EchoCenter for the section to which the Echo belongs.
- Clicking the Echo logo on the right side of the header will launch the full EchoPlayer in a new tab (just like launching the EchoPlayer from EchoCenter, with full functionality).
- The standard playback controls appear at the bottom of the embedded EchoPlayer, allowing for play/pause, skip to next scene, skip to previous scene, variable speed playback (VSP), audio level, and "seek" with the playhead.

The embedded EchoPlayer also allows for the use of the following keyboard shortcuts:

- P: Play/Pause (toggle)
- F: View in Fullscreen
- N: Skip to Next Scene
- B: Go back to Previous Scene
- U: Volume Up
- D: Volume Down

The Embedded EchoPlayer has the following limitations:

- Audio Only presentations will not be displayed.

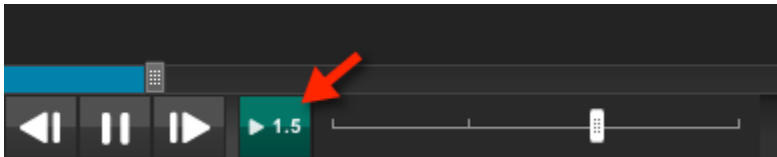
- Live streaming webcasts **cannot** be viewed in an embedded EchoPlayer.
- For Echoes with two visual capture inputs (Audio/Display/Video, Audio/Display/Display, or Audio/Video/Video), only one of the two visual items will appear, as follows:
 - For A/D/V, users will see the Display input.
 - For A/D/D, users will see the Primary Display input.
 - For A/V/V, users will see the Primary Video input.

Variable Speed Playback in the EchoPlayer

- [Overview](#)
- [Limitations](#)

Overview

Variable speed playback (VSP) allows a viewer to slow down or speed up the rate at which an Echo plays. Viewers can slow playback down to half-speed (0.5) or speed it up to twice the normal rate (2.0) by adjusting the slider control, as shown below.



Limitations

VSP is available only with certain browsers and with certain capture options.

- VSP is supported by newer browsers that adhere to the HTML5 standard. See [Browsers](#).
- VSP is supported only for Audio/Display (A/D) and Audio/Display/Display (A/D/D) inputs. Video input is not supported.
- When a viewer varies the playback, both the audio and the display (or both displays) speed up or slow down. If the Echo includes a video input, the video pane turns black when playback speed varies from the normal speed, as shown below. The video re-appears and resynchronizes when the playback speed returns to normal.



Notify Students

In this section:

- [Overview](#)
- [Procedure](#)

Overview

After an event of any kind (scheduled, ad hoc, or live) has been captured and processed, you, the System Administrator, must arrange for students to be notified of the new recording. You can do this via email, EchoCenter publishing, or publishing to an LMS. This is still true if the event is a **special event** such as a graduation or speech, and the people to be notified are alumni or other interested parties, not just students.

You do this in different ways, as shown in the [procedure](#) below.

Best Practice: Create an EchoCenter Page

Both Echoes and live webcasts are automatically posted to an EchoCenter page. If you use email publishing or a publisher that does not support an EchoCenter integration, you will have to take extra steps (explained in the [procedure](#) below) to notify students of live webcasts.

To avoid those extra steps, [create an EchoCenter page](#) for any special event that includes a live webcast or any section that **might** include a live webcast.

Procedure

If you use...	Then
---------------	------

<p>Email Publishing</p>	<p>If the recording is a regularly scheduled Echo, students automatically receive an email with a link to it.</p> <p>If the recording is a special event Echo, you have two options. Both assume that you have created a section for the special event.</p> <ul style="list-style-type: none"> Find the recording on the Echo Details page (Echoes > Echoes). Copy the URL into an email you send. <div style="border: 1px solid black; padding: 5px;"> <p>Echoes > Echo Details</p> <p>Show Echo – Aptus section-aptus term.2012.02.08.8.06.15.AM</p> <p>Current Status : Available URL: http://ec2-50-17-144-63.compute-1.amazonaws.com</p> <p>EchoCenter Page : URL: http://ec2-50-17-144-63.compute-1.amazonaws.com View Echo</p> </div> <ul style="list-style-type: none"> Add the Email Publisher to the section. In this case, you will have to create an email alias or distribution list because you can only specify one recipient per publisher. <p>If the recording is a live webcast, notify students via an email you send:</p> <ol style="list-style-type: none"> Navigate to the schedule for the event (Schedule > Schedules). Click on the link for the schedule. In the Course/Description settings group, copy the link from the Next Live Event Link field and send it to students or post it to a website, as appropriate. <div style="border: 1px solid black; padding: 5px;"> <table border="1"> <thead> <tr> <th colspan="2">Course / Description</th> </tr> </thead> <tbody> <tr> <td>Course :</td> <td>SJG course with live event (S</td> </tr> <tr> <td>Title :</td> <td>SJG course with live event (S</td> </tr> <tr> <td>Description :</td> <td></td> </tr> <tr> <td>Next Live Event Link :</td> <td>http://livedemoc.echo360.com:8080/e</td> </tr> </tbody> </table> </div>	Course / Description		Course :	SJG course with live event (S	Title :	SJG course with live event (S	Description :		Next Live Event Link :	http://livedemoc.echo360.com:8080/e
Course / Description											
Course :	SJG course with live event (S										
Title :	SJG course with live event (S										
Description :											
Next Live Event Link :	http://livedemoc.echo360.com:8080/e										
<p>The EchoCenter</p>	<p>The link (whether for an Echo or a live webcast) appears on the student's EchoCenter page. See Manage the EchoCenter.</p>										
<p>A learning management system (LMS) that has an EchoCenter integration</p>	<p>The link (whether for an Echo or live webcast) appears on the EchoCenter page within the LMS.</p> <ul style="list-style-type: none"> See Publishing for a list of all publishers. Only some publishers support an EchoCenter integration. If you publish to an LMS that does not have an EchoCenter integration, but would like to offer that seamless integration, contact Echo360 Client Services for information. 										

An LMS that does not have an EchoCenter integration

If the recording is an Echo, the link appears on the LMS page for the course.

If the recording is a live webcast, copy-paste the EchoCenter page URL to the LMS page for the course. See [Enable EchoCenter Pages in a Learning Management System](#). You could also paste the live event URL instead of the EchoCenter URL.

Manage Echoes

In this section:

- [Add Closed Captioning to Echoes](#)
- [Reprocess an Echo](#)
- [Add a Publisher to an Echo](#)
- [Delete an Echo for Administrators](#)

See also:

- [Edit Echoes for Academic Staff](#)
- [Manage Echoes for Academic Staff](#)

Add Closed Captioning to Echoes

In this section:

- [Overview](#)
- [Procedure](#)

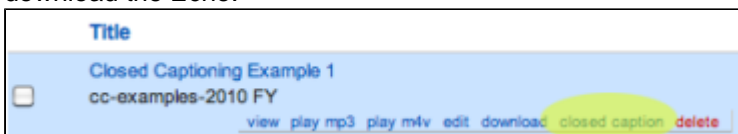
Overview

Deaf and hard-of-hearing students are often faced with an impossible choice during a lecture: Should they watch an interpreter sign or take notes? Lecture capture with closed captioning allows these students to watch the interpreter sign during the lecture then watch the closed captioned Echo later while they create their own set of notes.

Echo360 has implemented closed captioning standards for its EchoPlayer in line with broadcast television standards. The following is the procedure for adding closed captioning to your recordings.

Procedure

1. Navigate to **Echoes > Echoes**.
2. Hover over the Echo to be captioned.
3. Click **closed caption** to download the *mp3 audio file* from the lecture. Clicking on this button does not download the Echo.



4. Provide the audio file to the captioner.

✓ Best Practice: Have the Captioner Subscribe to the Podcast Feed

If you want all recordings for a course to have closed captions, suggest that the captioner subscribe to the Podcast feed. The captioner will receive the mp3 audio files automatically. You will be able to skip this step.

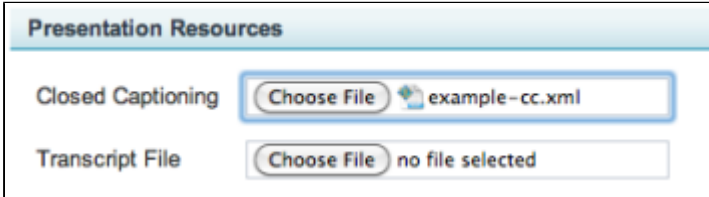
5. Once you have received the closed caption file from the captioner, navigate to the Echo and click **Edit**.



6. Click **Add Resources**.



7. Select the closed caption file and/or transcript file if one has been provided.



8. Click **Add Resources**.



9. Click **Save**.

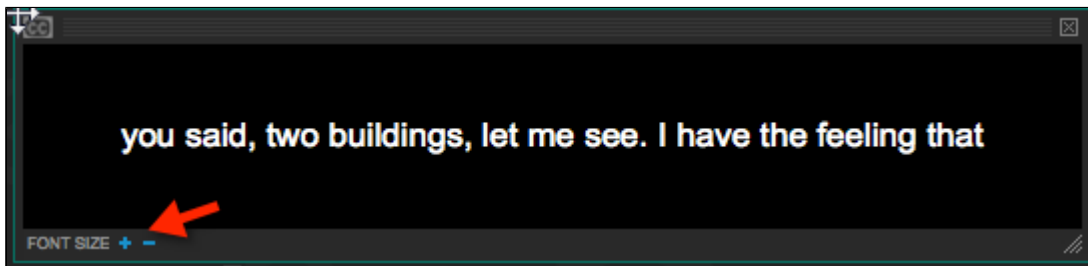


10. Open the Echo in the EchoPlayer.

a. Notice that the CC button appears in the button bar.



b. Notice that the closed captions appear in a separate pane that can be closed, resized, or moved around the EchoPlayer window. You can adjust the font size of the closed captions by clicking the **plus** and **minus** buttons.



Reprocess an Echo

In this section:

- [Overview](#)
- [Procedure](#)
- [Troubleshooting - If the Reprocess Fails](#)

Overview

Some changes to an Echo are not automatically applied. These include:

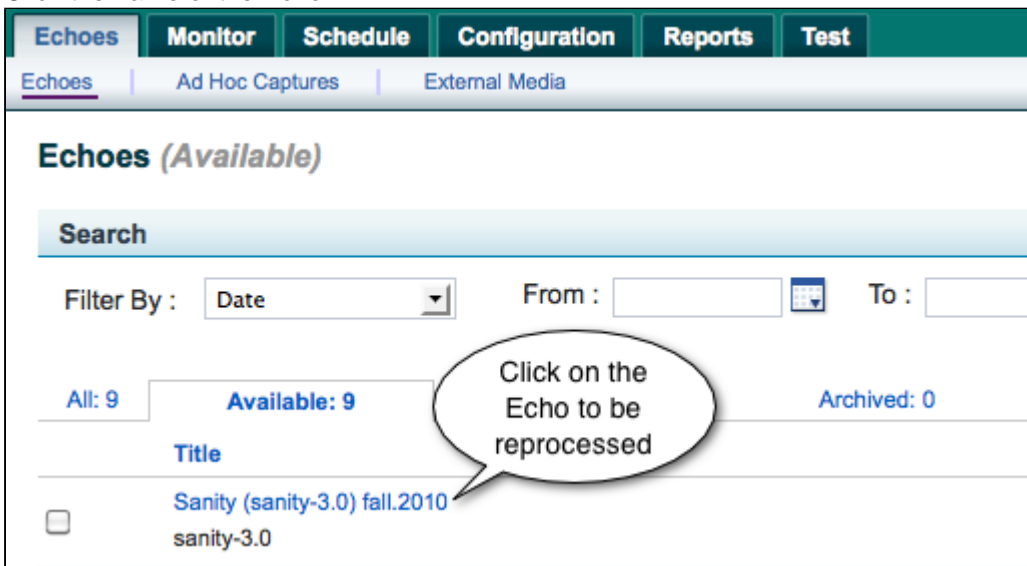
- Adding an intro/outro clip
- Adding a watermark

You must force the Echo to be reprocessed.

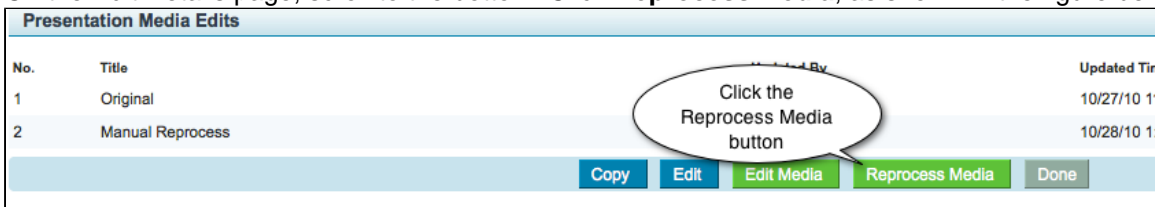
Please note that Outro clips are only added to the Podcast/Vodcast download files; they will not appear in the EchoPlayer.

Procedure

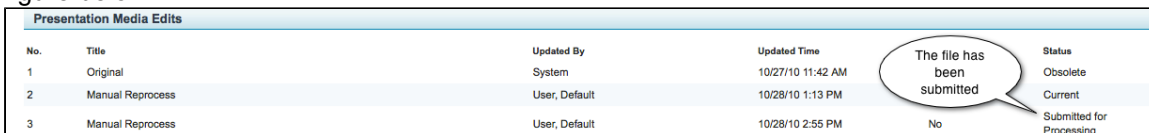
1. Navigate to **Echoes > Echoes**.
2. Click the name of the Echo.



3. On the Edit Details page, scroll to the bottom. Click **Reprocess Media**, as shown in the figure below.



Notice that a new line has been added to the Presentation Media Edits section of the page, as shown in the figure below.

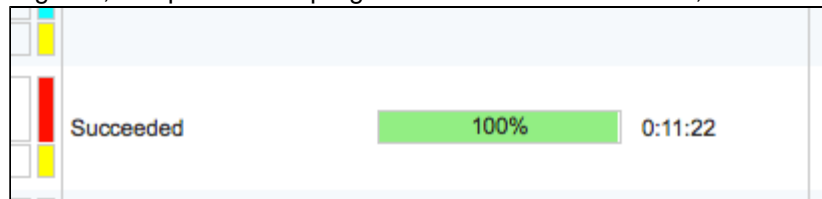


4. You can wait for this line to be updated or you can monitor the processing. To monitor the processing:
 - a. Navigate to **Monitor > Summary**.

- b. Click the **Completed** tab. If your Echo is not their, click the Processing tab, as shown in the figure below.

The screenshot shows the EchoSystem v. 3.0.2010-10-27.0* interface. The 'Processing' tab is selected, and a callout bubble points to it with the text "Click on the Processing tab". The interface includes a navigation bar with tabs like Echoes, Monitor, Schedule, Configuration, Reports, and Test. Below the navigation bar, there are sections for System Alerts, Capture Stations, and Processors. A 'Recent Captures' section is also visible, with a table showing columns for Time, Course, Room, Capture Status, Source, and Processing Status. The status bar at the bottom indicates 'Processing: 1' and 'Completed: 10'.

- c. In either the Completed or Processing tab, you see:
- The word "Succeeded" in the Processing Status column
 - A green, completed filled progress bar with the text "100%," as shown in the figure below.



Troubleshooting - If the Reprocess Fails

On rare occasions, you receive an error message when you attempt to reprocess an Echo.


This may be caused by an over-full **.tmp** directory. Your System Administrator can correct this by changing the temporary storage location. See [Best Practice - Establish a Temporary Storage Location](#).

Add a Publisher to an Echo

- [Overview](#)
- [Procedure](#)

Overview

Most of the time, you configure a publisher for a section and each Echo is automatically published. However, if this process fails you can add a publisher to a specific Echo.

 **Best Practice: Investigate**

This process ensures that the individual Echo is published. After you process this particular Echo, investigate to discover why Echoes are not publishing automatically. See [Publishing](#) and the individual pages for each publisher.

Procedure

Follow these steps. This procedure assumes you have already configured at least one publisher.

1. Navigate to **Echoes > Echoes**.
2. Edit the Echo.
 - a. Hover over the Echo of interest.
 - b. Click **edit**.
3. On the edit Echo page, scroll to the bottom and click **Add Publisher**.



4. On the Add Publisher page, select the publisher. If necessary, add the publisher configuration.

[Add Publisher](#) > Add Publisher

Add Publisher - aptus course (ASLPL-Aptus section) aptus term

General Info

echo.rss

Publisher Configuration

Allow iTunes Subscription :

5. Click **Save**.
6. Notice that the publisher appears in the Configured Presentation Publishers section of the edit Echoes page.

Configured Presentation Publishers		
Name	Publisher Type	Configuration Complete?
echo.rss Allow iTunes Subscription: true	edit delete RSS Feeds	Yes

Delete an Echo for Administrators

In this section:

- [Overview](#)
- [Procedure](#)

Overview

When you delete an Echo, you delete it permanently. It cannot be retrieved after being deleted. Before deleting an Echo, consider these alternatives:

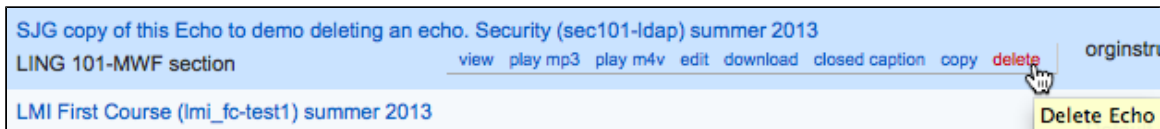
- **Make the Echo unavailable.** If you want to keep the Echo but do not want students to view it, you can make the Echo unavailable. When you make an Echo unavailable, students can still see it listed on their EchoCenter pages but cannot view it. You can make the Echo available when you want students to view it. See [Make an Echo Available or Unavailable for Viewing](#).
- **Archive the Echo.** You can also move Echoes to an archive location. Students do not see archived Echoes on their EchoCenter pages. See [Archive or Unarchive an Echo](#).

i Deleting a Lot of Echoes?

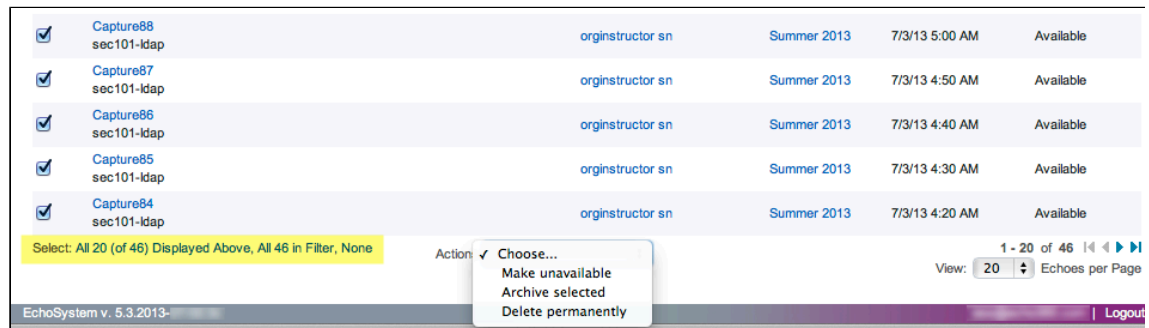
If you are performing a large-scale deletion of Echoes, or other users have repeatedly deleted presentations and other media from the system, refer to [Deleting Objects from the System](#). This section provides technical information regarding how deletions work as well as a Best Practice tip for defragmenting and re-indexing your database.

Procedure

1. Navigate to **Echoes > Echoes**.
2. Select one of the tabs (All, Available, Unavailable, Archived). Note the number of items listed (Example: **Available: 78**).
3. If you can easily do so, use the Search options to list only the Echoes you want to delete.
4. Do one of the following:
 - To delete a single Echo, hover over the Echo and click **delete**.



- To delete multiple Echoes:
 - a. Check the Echoes you want to delete, either individually or using the Select links at the bottom of the page, highlighted in the below figure.
 - b. Scroll to the bottom of the page. Select **Delete permanently** from the Actions drop-down list, also shown in the below figure



5. Confirm that you want to delete the item(s).
6. Notice the confirmation message at the top of the page.
7. Refresh the page. Notice that:
 - The Echo is deleted from the list
 - The number of items listed for the tab is smaller

