



# Integrate a Cisco MXE 3500 for Video Transcoding and Pulse Video Analytics

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## About Cisco MXE 3500 Integration with Cisco Show and Share

When you enable Cisco MXE 3500 integration in Cisco Show and Share, videos uploaded to Cisco Show and Share are delivered to the Cisco MXE 3500 for transcoding and, optionally, Pulse spoken keyword and speaker identification. When the transcoding is complete, the transcoded videos are returned to Cisco Show and Share. You can edit transcoded videos in the Cisco Show and Share video editor.

You can enable video authors to bypass transcoding for Windows media files that might contain embedded closed captioning or slides. This will retain the embedded data that will be lost if the videos are transcoded. However, you cannot edit the files in the Cisco Show and Share video editor.

To learn more about video transcoding, see the following topics:

- [Transcoding Output, page 12-2](#)
- [Features Enabled by MXE Integration, page 12-2](#)

## Transcoding Output

Videos are transcoded to MP4 files by using the H.264 video codec. You can configure the transcoding process to produce up to three versions of the video with these resolutions:

- 360p—Low resolution. This is the resolution used by the Cisco Show and Share mobile client to display videos. Viewers can select this to resolution for smoother playback over slow connections.
- 480p—Medium resolution. Videos that are transcoded to this resolution will also be transcoded to 360p.
- 720p—High resolution. Videos that are transcoded to this resolution will also be transcoded to 480p and 360p.

Viewers can select the video resolution and can change the resolution in the middle of video playback. Lower resolutions play better on slow network connections. Playback in the Cisco Show and Share mobile application uses the 360p version of the video.

Although you can configure the transcoding process for 720p, you might not always get a 720p version of the video. This is because the Cisco MXE 3500 does not upscale a video. For example, if you configure transcoding for all three resolutions and an author uploads a video at 480p, Cisco Show and Share will only produce the 480p and 360p versions of the video.



### Note

When you upload a video for transcoding by using an iPhone or iPad, the Cisco MXE 3500 transcodes the file in the lowest resolution setting. This is because the iPhone or iPad application compresses the video on the client side to a lower resolution. The uploaded video causes Cisco Show and Share to automatically request the low resolution version from the Cisco MXE 3500. For best results, you should upload the video by using a PC.

Table 12-1 shows the output specifications for each video resolution.

**Table 12-1** Transcoded file specifications

Resolution	Size		Bitrate
	4:3	16:9	
360p	480x360	640x360	400kbps
480p	640x480	853x480	768kbps
720p	960x720	1280x720	1300kbps

## Features Enabled by MXE Integration

The following features require Cisco MXE 3500 integration with Cisco Show and Share:

- Video transcoding. See [Enable Video Transcoding in Cisco Show and Share, page 12-5](#).
- Pulse spoken keyword and speaker identification. See [Chapter 14, “Enable Pulse Spoken Keyword and Speaker Identification”](#).
- Mobile application access to Cisco Show and Share. See [Chapter 13, “Enable Mobile Application Access”](#).

## Guidelines and Limitations

The following limitations apply to Cisco MXE 3500 integration with Cisco Show and Share:

- Cisco Show and Share is only compatible with the Cisco MXE 3500 appliance.
- To use the Pulse video analytics feature set, you need to use the MXE 3500 version 2 hardware (MXE-3500-V2) running MXE software version 3.3. If you have an earlier version of the MXE installed, you can upgrade your Cisco MXE 3500 to Release 3.3. See the [Release Notes for Cisco Media Experience Engine 3500 Release 3.3](#) on Cisco.com.
- You can only configure one Cisco MXE 3500 or Cisco MXE 3500 cluster in Cisco Show and Share.
- Transcoding is only available for the Record a Video option if Mobile Application Access is enabled. See [Chapter 13, “Enable Mobile Application Access”](#).

## Procedures

To integrate a Cisco MXE 3500 with Cisco Show and Share, do the following:

1. [Integrate a Cisco MXE 3500 Release 3.3 with Cisco Show and Share, page 12-4.](#)
2. [Register the Cisco MXE 3500 in the Cisco DMM, page 12-4](#)
3. [Enable Video Transcoding in Cisco Show and Share, page 12-5](#)
4. [Verify the Configuration, page 12-7](#)

### Integrate a Cisco MXE 3500 Release 3.3 with Cisco Show and Share

To integrate the Cisco MXE 3500 running Release 3.3 software with Cisco Show and Share, see the *Integration Note for Configuring Cisco MXE 3500 Release 3.3 with Cisco Show and Share* on Cisco.com:

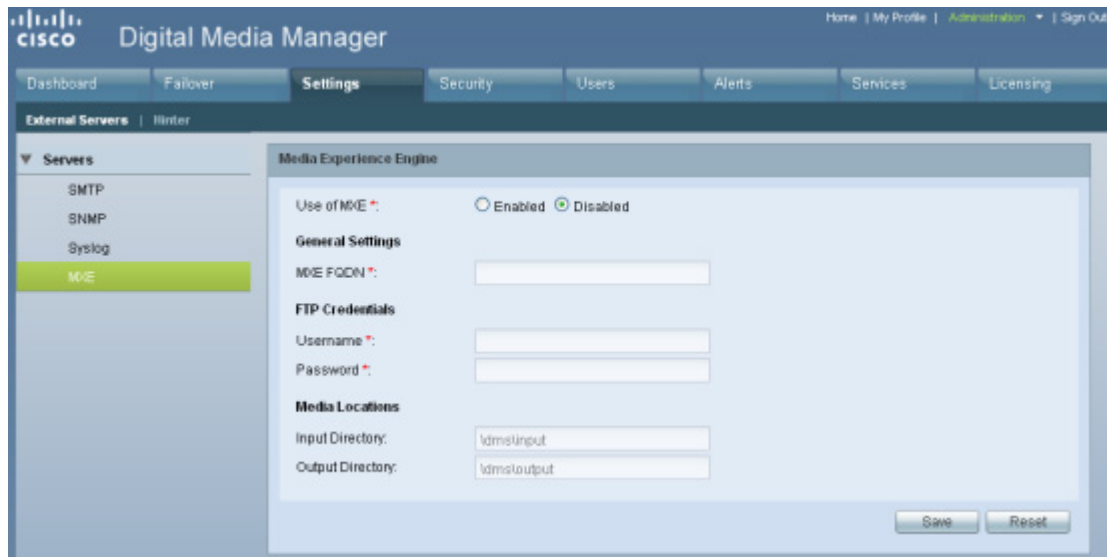
[http://www.cisco.com/en/US/docs/video/mxe/3500/sw/3\\_x/3\\_3/integration/note/integ\\_mxe33\\_sns.html](http://www.cisco.com/en/US/docs/video/mxe/3500/sw/3_x/3_3/integration/note/integ_mxe33_sns.html)

### Register the Cisco MXE 3500 in the Cisco DMM

If you did not register the Cisco MXE 3500 during the integration steps, you need to do so before enabling video transcoding or the Pulse video analytics feature set.

#### Procedure

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- Step 1** Log in to Cisco Digital Media Manager ([http://dmm\\_server\\_name:8080](http://dmm_server_name:8080)) as the administrator or as superuser.
  - Step 2** Click **Administration**.
  - Step 3** Choose **Settings > External Servers > MXE**.  
The Media Experience Engine settings page appears.



- Step 4** Choose **Enabled** in the **Use of MXE** field.
- Step 5** Enter the MXE fully qualified domain name in the **MXE FQDN** field, for example *mxe.cisco.com*.
- Step 6** Enter the FTP credentials that you configured on the Cisco MXE:

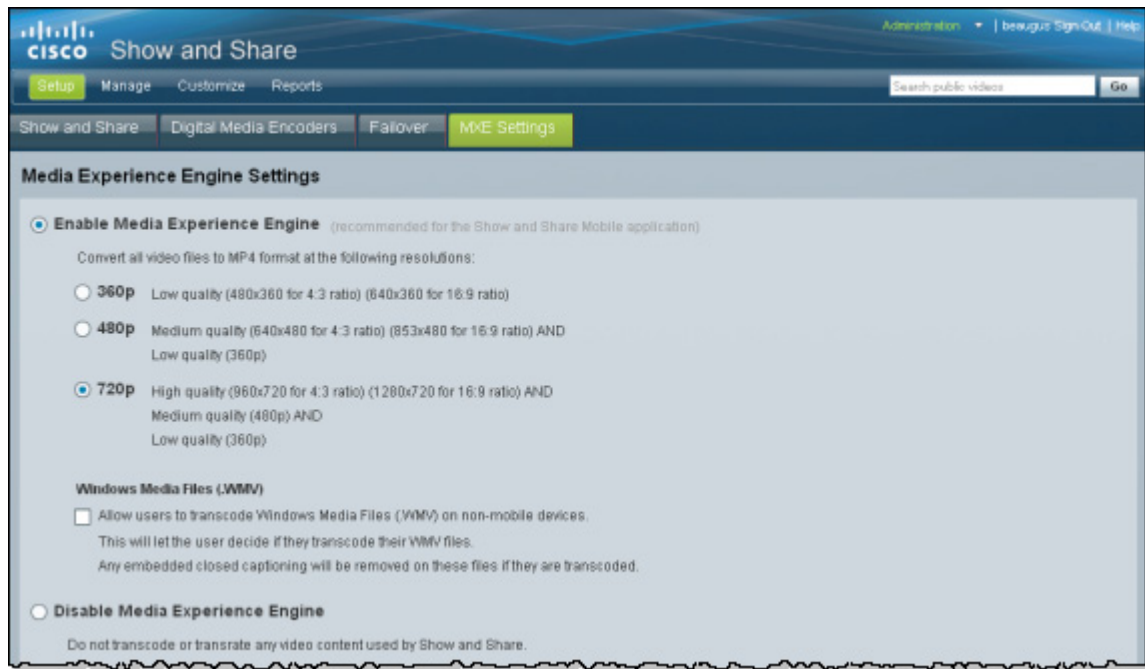
Field	Value
Username	dmsftp
Password	The password for the dmsftp account.

- Step 7** Select **Enabled** in the Use of MXE field. This allows Cisco Show and Share to utilize the MXE.
- Step 8** Click **Save**.
- Cisco DMM verifies the connection to the Cisco MXE. If it cannot connect to the Cisco MXE, an error message appears. If you receive an error, verify your settings and try again.

## Enable Video Transcoding in Cisco Show and Share

### Procedure

- Step 1** Log into Cisco Show and Share with admin or superuser privileges.
- Step 2** Choose **Administration** from the global navigation.
- Step 3** Choose **Setup > MXE Settings**.
- The Media Experience Engine Settings page displays.



**Step 4** Select **Enable Media Experience Engine**.

By default, 360p is selected.

**Step 5** Select the video resolution for transcoding. If you select the medium or high quality, videos are also transcoded to the lower resolution. Viewers can select the video resolution they want to view during playback.



**Note** The Cisco MXE 3500 will not upscale videos. If you have selected 720p, and an author uploads a video at 480p, the Cisco MXE 3500 will only produce the 480p and 360p resolutions.

If you later change the resolution setting, previously transcoded videos maintain the original resolutions until they are republished. For example, if you originally had selected 720p and later changed it to 480p, the 720p videos will retain the version until re-uploaded under the new settings.

**Step 6** (Optional) To allow WMV files to be transcoded on non-mobile devices, check the Windows Media Files checkbox.

Enabling the checkbox gives authors the option to skip transcoding and have the files processed natively by Cisco Show and Share. However, if they bypass transcoding, they will not be able to use the Cisco Show and Share editor with the video.

Clearing the checkbox prevents users from bypassing transcoding for their Windows media files (.wmv, .wma, .asx, and .asf). Any embedded closed captioning or slide synchronization will be lost.

## Verify the Configuration

To verify the Cisco MXE 3500 integration with Cisco Show and Share, upload a video to Cisco Show and Share and save it as a draft. You should see a status of “Processing - Draft”. When transcoding is finished, the video should show a status of “Draft”.

## Reference

For more information about customizing transcoder profiles, see the [Cisco MXE 3500 Documentation Roadmap](#) on Cisco.com.

