



HD-PS621 and HD-PS622 8x1 and 8x2 4K60 4:4:4 HDR Presentation System

Web Interface Configuration Guide

Crestron Electronics, Inc.

Original Instructions

The U.S. English version of this document is the original instructions.
All other languages are a translation of the original instructions.

Regulatory Model: M202004002

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HDMI

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Overview

The Creston® HD-PS621 and HD-PS622 provides an 8x1 and 8x2 4K60 4:4:4 HDR Presentation System with enhanced HDMI® video switching and audio presentation capabilities for areas such as conference rooms and classrooms. The HD-PS variants are as follows:

- The HD-PS621 includes six HDMI® inputs, two DM Lite® inputs, and one HDMI output with a mirrored DM Lite output.
- The HD-PS622 includes six HDMI® inputs, two DM Lite® inputs, and two HDMI outputs with mirrored DM Lite outputs.

The HD-PS621 and HD-PS622 are hereinafter referred to as "Presentation System".

Web Interface Configuration

The web interface of the Presentation System allows you to view status information and configure network and device settings.

Access the Web Interface

The web interface is accessed from a web browser. The following table lists operating systems and their corresponding supported web browsers.

OPERATING SYSTEM	SUPPORTED WEB BROWSERS
Windows® operating system	Chrome™ web browser, version 31 and later Firefox® web browser, version 31 and later Internet Explorer web browser, version 11 and later Microsoft Edge web browser
macOS® operating system	Safari® web browser, version 6 and later Chrome web browser, version 31 and later Firefox web browser, version 31 and later

To access the web interface, do either of the following:

- Open it directly in a web browser.
- Open a web browser from within the Crestron Toolbox™ application.

Access the Web Help

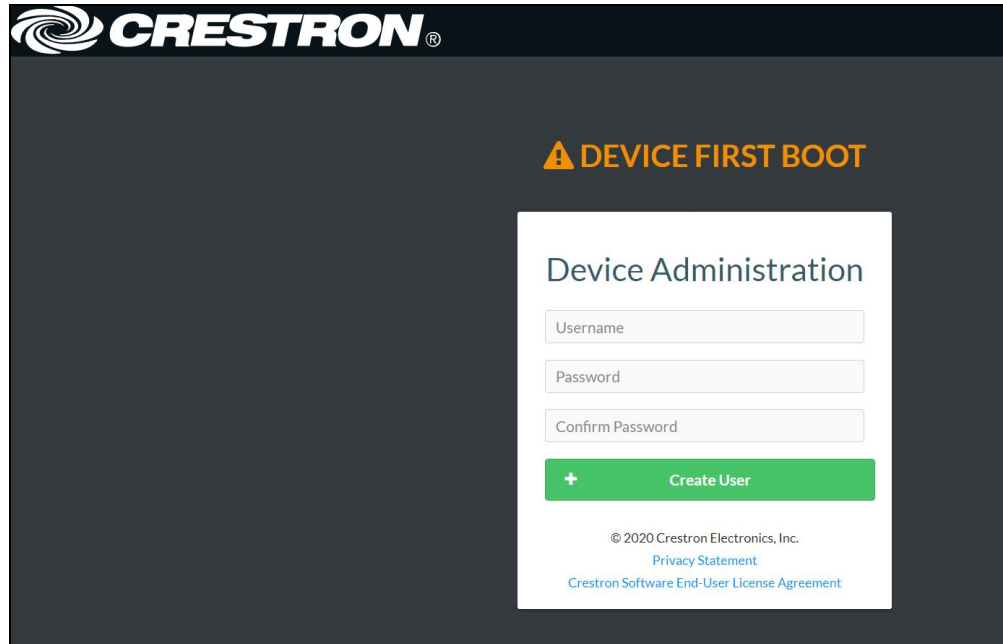
The web interface provides an icon to access the web help. Click the **Help** icon (?) to open the web help.

Access the Web Interface with a Web Browser

1. Enter the IP address of the AV switcher into a web browser.

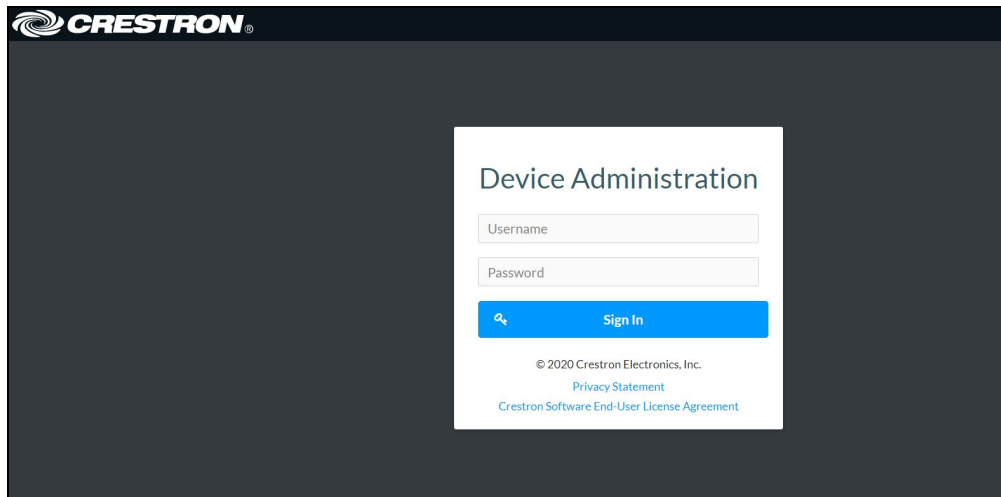
NOTE: To obtain the IP address, press the **Setup** button on the AV switcher to display the IP address on the HDMI output. The IP address is displayed for 20 seconds.

2. If you are creating a user account for the first time, do the following; otherwise, skip to step 3.
 - a. Enter a username in the **Username** field.
 - b. Enter a password in the **Password** field.
 - c. Re-enter the same password in the **Confirm Password** field.



The screenshot displays the Crestron web interface. At the top left is the Crestron logo. In the center, there is a warning icon and the text "DEVICE FIRST BOOT". Below this, a white box titled "Device Administration" contains three input fields: "Username", "Password", and "Confirm Password". A green button with a plus sign and the text "Create User" is positioned below the input fields. At the bottom of the white box, there is copyright information: "© 2020 Crestron Electronics, Inc.", a link to "Privacy Statement", and a link to "Crestron Software End-User License Agreement".


- d. Click **Create User**. The Device Administration page appears.



3. Enter the username in the **Username** field.
4. Enter the password in the **Password** field.
5. Click **Sign In**.

Access the Web Interface with the Crestron Toolbox™ Application

To access the web interface by opening a web browser within the Crestron Toolbox™ application, do the following:


1. Open the Crestron Toolbox™ application.
2. From the **Tools** menu, select **Device Discovery Tool**. You can also access the Device Discovery Tool by clicking the Device Discovery Tool button () in the Crestron Toolbox toolbar. The Presentation System are discovered and listed in the device list on the left side of the screen. The associated host name, IP address, and firmware version are also displayed.



NOTE: If there is security software running on the computer, a security alert might be displayed when the Crestron Toolbox application attempts to connect to the network. Make sure to allow the connection, so that the Device Discovery Tool can be used.

3. Double-click your device in the **Device Discovery Tool** list, .
4. Enter your credentials in the **Authentication Required** dialog and click **Log In**.
5. Click the **Web Configuration** button in the Configuration page displayed on the left side of the Device Discovery Tool.

Sign Out from the Web Interface

The web interface provides you the option to sign out of the session. Click the user account icon () that is present at the top-right of the web interface and click **Sign Out**.

Specifications

The product specifications are mentioned in the product page. Here are the links:

Crestron Presentation Systems

- HD-PS621
- HD-PS622

Product Specification Sheet

- <https://www.crestron.com/Products/Video/DigitalMedia-Switchers/Fixed-Switchers/HD-PS621>
- <https://www.crestron.com/Products/Video/DigitalMedia-Switchers/Fixed-Switchers/HD-PS622>

Installation

To install the Crestron HD-PS621 and HD-PS622, follow the link to the Quick Start guide for instructions.

Crestron Presentation Systems

- HD-PS621
- HD-PS622

Quick Start Guide

- <https://www.crestron.com/docs/8993>

Configuration

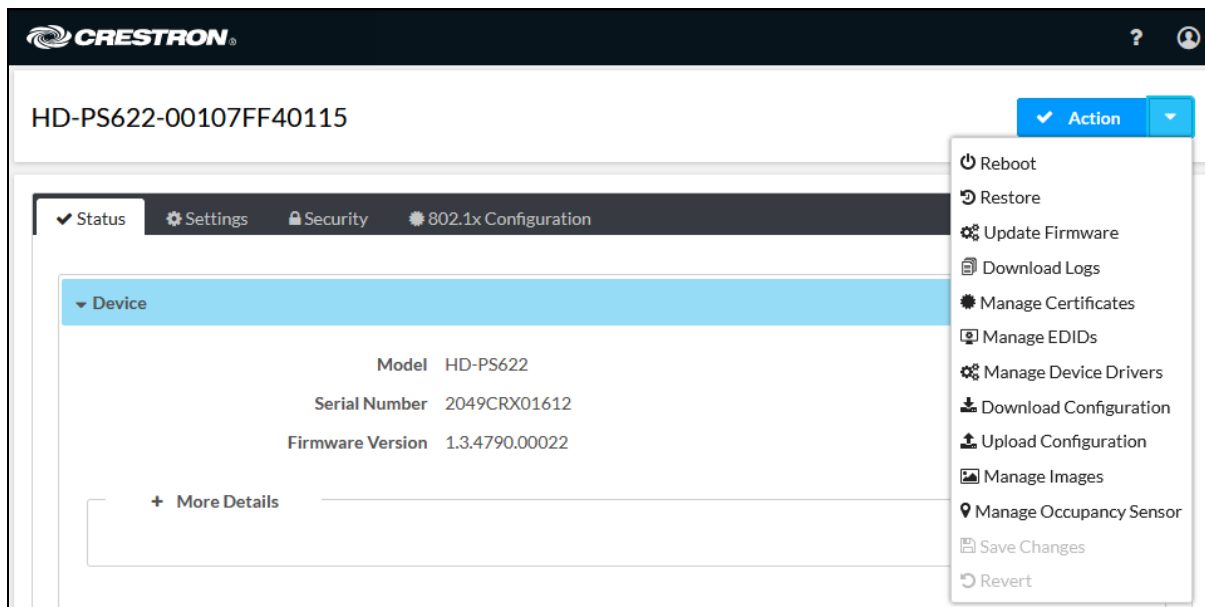
You can set up your Crestron HD-PS621 and HD-PS622 as mentioned in the following topics:

1. [Actions Menu \(on the next page\)](#)
2. [Status \(on page 17\)](#)
3. [Settings \(on page 24\)](#)
4. [Security \(on page 54\)](#)
5. [802.1x Configuration \(on page 62\)](#)

Actions Menu

The Actions drop-down menu is displayed at the top right side of the interface and provides quick access to common device functionality of the Presentation System, such as:

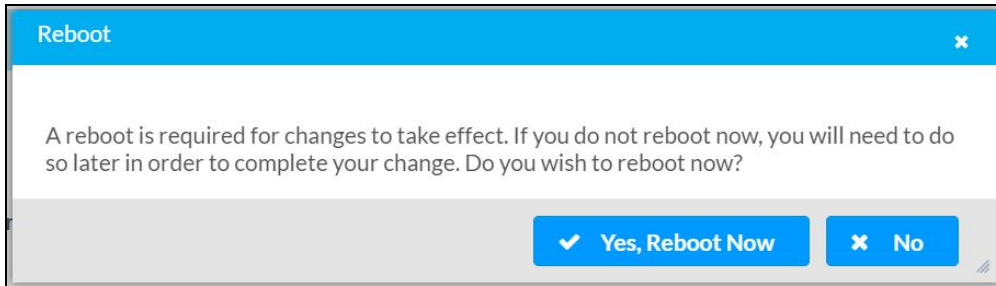
- Reboot
- Restore
- Update Firmware
- Download Logs
- Manage Certificates
- Manage EDIDs
- Download Configuration
- Upload Configuration
- Manage Images
- Manage Occupancy Sensor
- Save Changes
- Revert



Rebooting the Presentation System

Certain changes to the settings may require the Presentation System to be rebooted to take effect. To reboot the device, do the following:

1. Click **Reboot** in the **Actions** drop-down menu. The **Confirmation** message box appears.

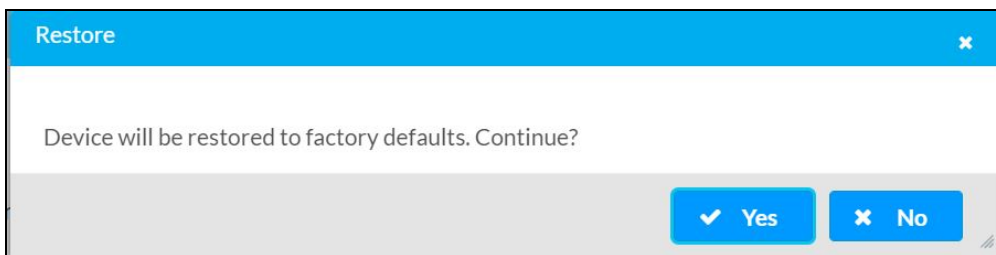


2. Click **Yes, Reboot Now** to reboot the device. The **Reboot** message box appears. Wait for the device reboot to complete before attempting to reconnect to the device.

Restoring to Factory Default Settings

1. Click **Restore** in the **Actions** drop-down menu to restore the settings of the Presentation System to factory defaults.

NOTE: When settings are restored, all settings, including the network settings, will revert to the factory default. If a static IP address is set, restoring the device to factory default settings will revert the IP address to the default DHCP mode.

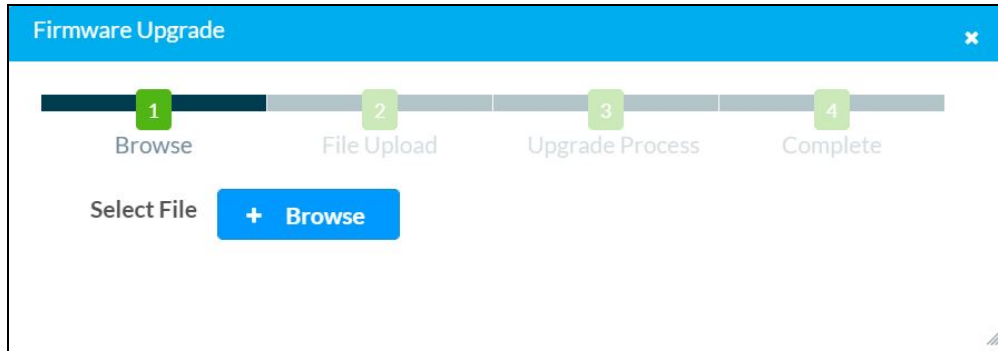


2. Click **Yes** in the **Confirmation** dialog to restore the Presentation System to factory settings. Click **No** to cancel the restore operation.

A dialog is displayed again, indicating that the Restore process was successful and that the device rebooted.

Updating Firmware

1. Click **Update Firmware** in the **Actions** drop-down menu.
2. In the **Firmware Upgrade** dialog, click **+ Browse**.



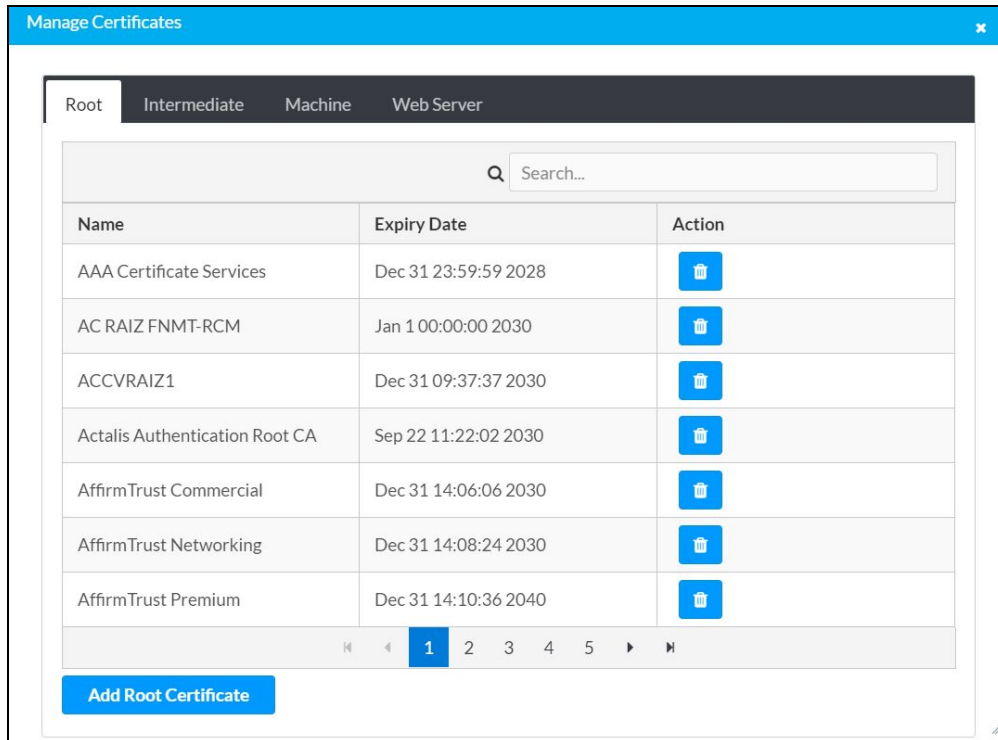
3. Locate and select the desired firmware file, and then click **Open**. The selected firmware file name is displayed in the **Firmware Upgrade** dialog.
4. Click **Load** and wait for the progress bar to complete and for the **OK** button in the message to become clickable.
5. Click **OK**. The device with new firmware can now be accessed.

Downloading Logs

Click **Download Logs** in the **Actions** drop-down menu. The log file is downloaded to the Downloads folder of the PC.

Managing Certificates

Use the Manage Certificates dialog to add, remove and manage certificates used in 802.1x and other protected networks.



1. Click **Manage Certificates** in the **Actions** drop-down menu. The following certificate tabs are displayed:
 - **Root:** The Root certificate is used by the Presentation System to validate the network's authentication server. The Presentation System have a variety of Root certificates, self-signed by trusted CAs (Certificate Authorities), preloaded into the device. Root certificates must be self-signed.
 - **Intermediate:** The Intermediate storage holds non self-signed certificates that are used to validate the authentication server. These certificates will be provided by the network administrator if the network does not use self-signed Root certificates.
 - **Machine:** The machine certificate is an encrypted PFX file that is used by the authentication server to validate the identity of the Presentation System. The machine certificate will be provided by the network administrator, along with the certificate password. For 802.1x, only one machine certificate can reside on the device.
 - **Web Server:** The Web Server certificate is a digital file that contains information about the identity of the web server.


To Add Certificates

1. Click the corresponding certificate tab.
2. Click the **Add Certificate** button.
3. Click the **+ Browse** button.
4. Locate and select the file, and then click the **Open** button.

NOTE: If the certificate is a Machine Certificate, enter the password provided by the network administrator.

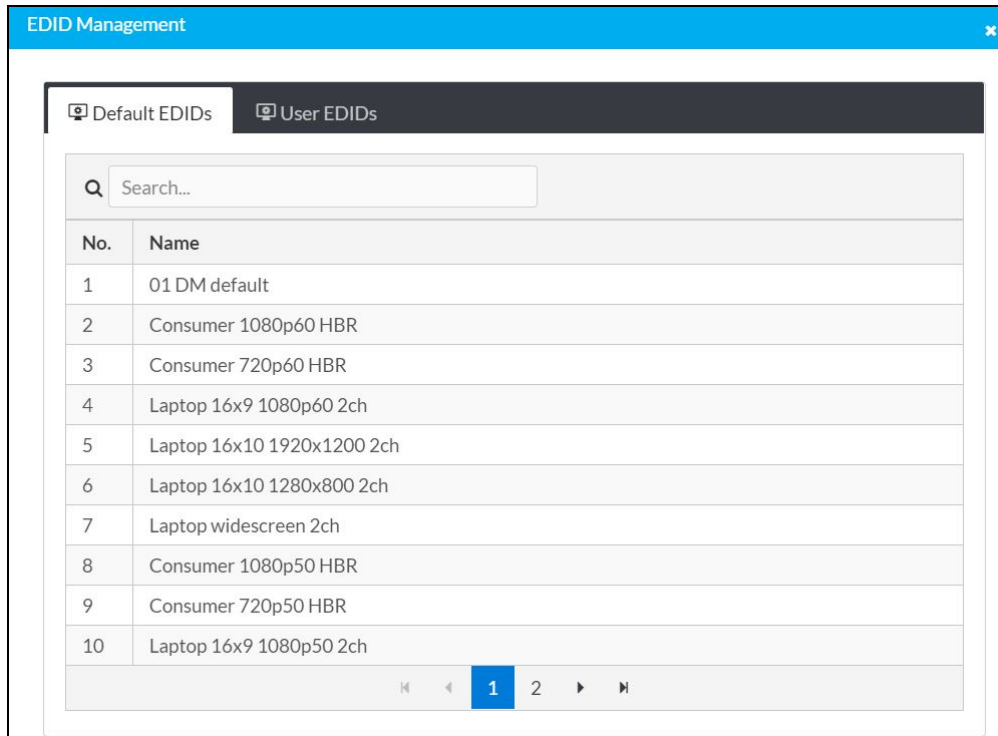
5. Click **OK**. This will add the certificate to the list box, displaying the file name and expiration date.
The certificate is now available for selection and can be loaded to the device.

To Delete Certificates

1. Click the corresponding certificate tab.
2. Click the trashcan button () in the **Actions** column to delete the certificate.
3. Click **Yes** when prompted to delete the certificate or **No** to cancel the deletion.

Managing EDIDs

The Managing EDIDs dialog displays available built-in EDID (Extended Display Identification Data) files and allows loading of a custom EDID file.



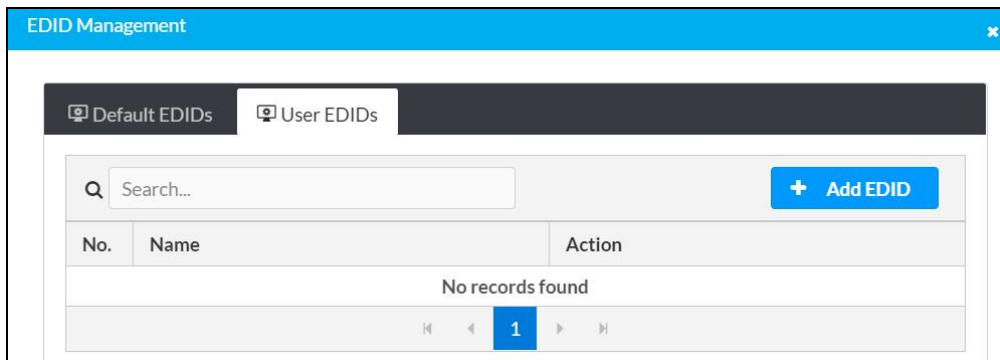
Built-in EDIDs are displayed in the **Default EDIDs** tab of the **EDID Management** dialog. The following EDIDs are available:

- 01 DM default
- Consumer 1080p60 HBR
- Consumer 720p60 HBR
- Laptop 16x9 1080p60 2ch
- Laptop 16x10 1920x1200 2ch
- Laptop 16x10 1280x800 2ch
- Laptop widescreen 2ch
- Consumer 1080p50 HBR
- Consumer 720p50 HBR
- Laptop 16x9 1080p50 2ch
- DM Default 4k 30Hz 2ch
- DM Default VGA EDID
- DM Default 4k 60Hz HBR
- 4K60 444 2CH Non-HDR

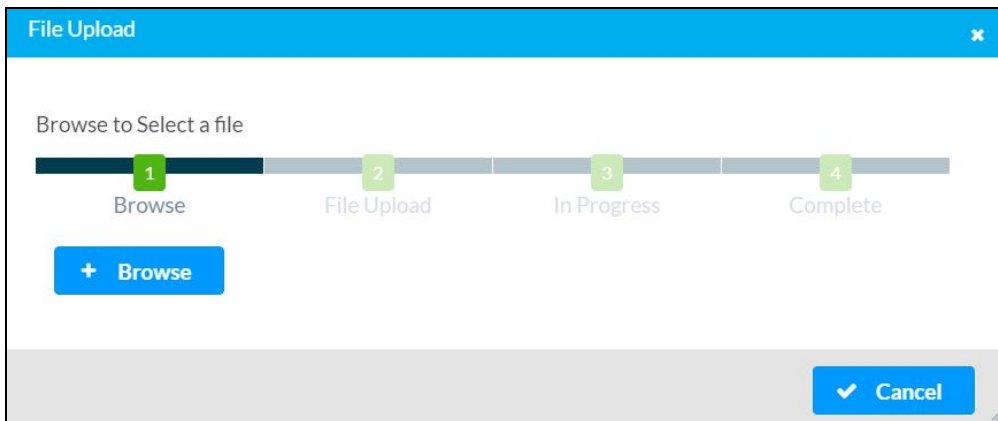
- 4K60 444 2CH HDR
- 4K60 444 HBR HDR
- 4K60 444 2CH HDR DCI
- 4K60 444 HBR Non-HDR
- 4K60 444 2CH HDR10+
- 4K60 444 HBR HDR10+

To Load a Custom EDID File

1. In the EDID Management dialog, click the **User EDIDs** tab and then click the **+ Add EDID** button.



2. Click the **+ Browse** button in the File Upload dialog.



3. Navigate to the desired custom EDID file (.cedid extension), select the file, and then click **Open**.
4. Click **Send EDID**. A prompt appears asking for confirmation that the EDID file be uploaded to the device.
5. Click **OK**.


Once the EDID file is sent successfully the following occurs:

- In the **Global EDID** section of the **Inputs** panel, the custom EDID file name is added to the **Send EDID to all inputs** drop-down list.
- In the **Inputs** section of the **Inputs** panel, the custom EDID file name is added to each individual input **EDID** drop-down list.

NOTE: Any custom EDIDs will be listed (in alphabetical order) after the last built-in EDID.

To Delete a Custom EDID File

NOTE: Only custom EDID files that are not applied to an input can be deleted. Built-in EDID files cannot be deleted.

1. Click the **User EDIDs** tab and then click the trashcan button () in the row of the custom EDID files to be deleted.
2. Click **Yes** in the Confirmation dialog to confirm the deletion. Click **No** to cancel.

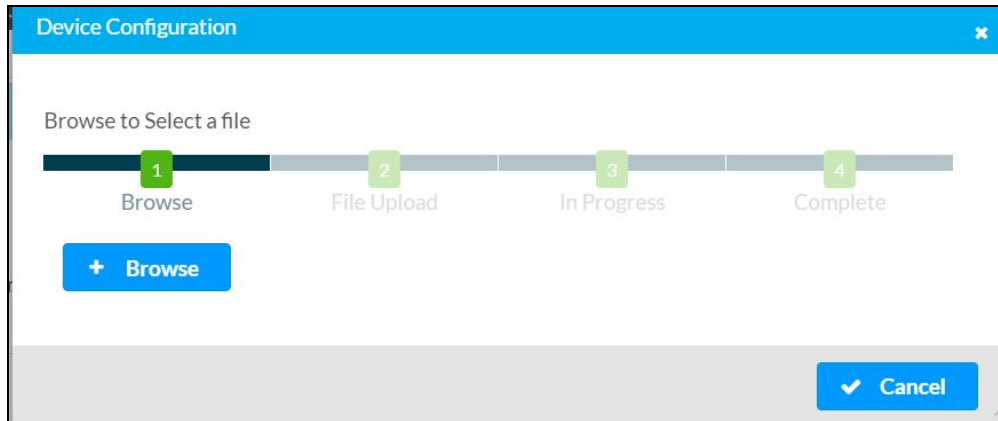
After a successful deletion, the custom EDID file is removed from the **Send EDID to Global Inputs** drop-down list and also from each individual input **EDID** drop-down list in the **Inputs** sections of the **Inputs** panel.

Downloading Configuration

Click **Download Configuration** in the **Actions** drop-down menu. The configuration file (.tgz) is downloaded to the Downloads folder of the PC.

Uploading Configuration

1. Click **Upload Configuration** in the **Actions** drop-down menu.

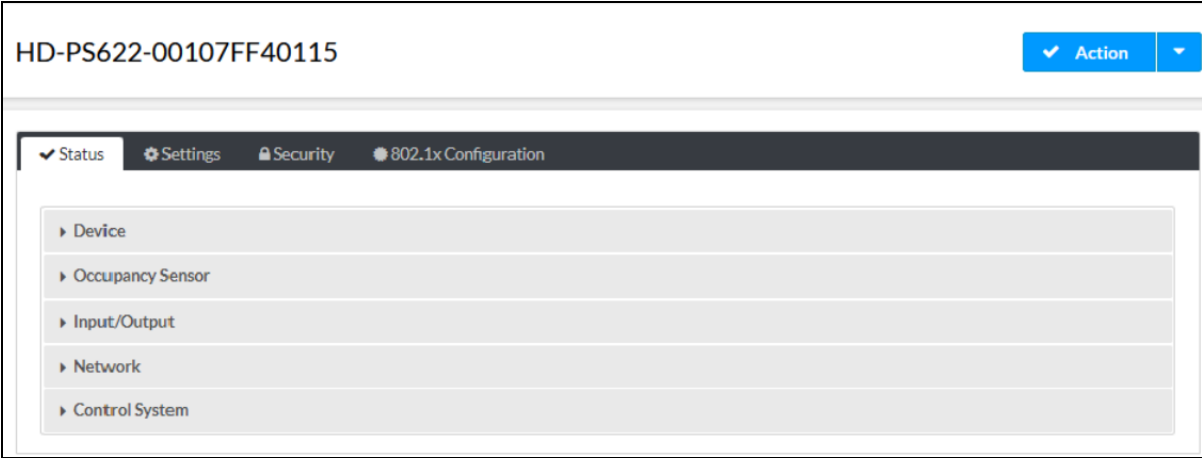


2. Click the **+ Browse** button.
3. Navigate to the configuration file, select the file, and then click **Open**.
4. Click the **Load** button. The Confirmation dialog appears.
5. Click **Yes, Reboot Now** to reboot the device. The Reboot message box appears.

Status

The **Status** tab is the first page displayed when starting the interface of the Presentation System. It displays general information about the Presentation System (such as Model Name, Serial Number, and Firmware Version), current network settings (such as Host Name and IP Address, etc.), input and output ports, as well as information about the connection to the control system.

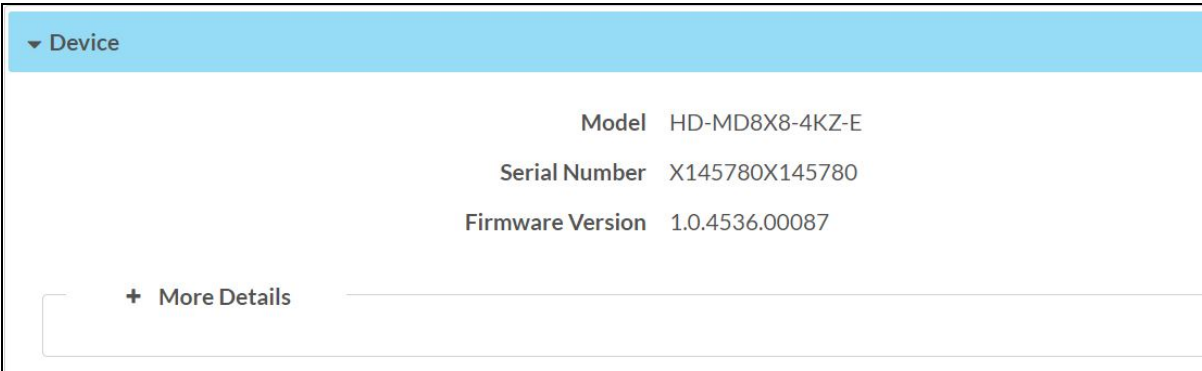
The Status tab can be accessed at any time by clicking the **Status** tab of the Presentation System interface.



Information displayed on the **Status** tab is organized into different sections.

Device

The **Device** section displays the **Model**, **Serial Number**, and **Firmware Version** of the Presentation System.



Click **+ More Details** to review additional information about the Presentation System.

- More Details

HD-MD8X8-4KZ-E	1.0.4536.00087
Build	Sep 26 2020 (377129)
Updater	1.0.4536.00087
Bootloader	1.001.024
Cab	1.999.2093
CCUI Version	2.93.835129
Build time	05:31:09
Product ID	0x7805
Revision ID	0x0000
CPU ID	0x0000
PUF	1.0.4536.00087
MCU	1.4525.00043
FORCED_AUTH_MODE	True

Click **+ Transmitters** to review transmitters of the product.

- Transmitters

Name	Connected	Model	Firmware Version	Serial Number
DMLITE 7	Yes	HD-TX-301-C-E	2.0.1.2274	2021CYT08623
DMLITE 8	Yes	HD-TX-201-C-2G	2.0.1.2274	2021CYT06318

Occupancy Sensor

The **Occupancy Sensor** section lists all the sensors added to the Presentation System.

Occupancy Sensor					
Occupancy Sensor					
Name	Model	Serial Number	Firmware Version	Status	Occupancy
No records found					

Input/Output

The **Input/Output** section displays information about available inputs and outputs of the Presentation System.

Input/Output				
Inputs				
Name	Sync Detected	Resolution	Source HDCP	
HDMI 1	Yes	3840x2160@50	HDCP 2.x	
HDMI 2	No	0x0@0	No Signal	
HDMI 3	No	0x0@0	No Signal	
HDMI 4	Yes	1920x1080@60	HDCP 1.x	
HDMI 5	No	0x0@0	No Signal	
HDMI 6	No	0x0@0	No Signal	
DM LITE 7	Yes	3840x2160@24	HDCP 1.x	
DM LITE 8	Yes	1920x1080@24	HDCP 1.x	

Outputs					
	Name	Sink Connected	Resolution	Sink HDCP Capability	Disabled by HDCP
▼	asdfadsf		1920x2160@60		
	DM LITE 1	Yes		HDCP 2.x	No
	HDMI 1	No		Not Connected	No
▼	HDMI/DM LITE 2		3840x2160@60		
	DM LITE 2	No		Not Connected	Yes
	HDMI 2	Yes		HDCP 2.x	No

NOTE: Output HDMI2/DMLITE2 is not applicable for HD-PS621.

Inputs

- **Name:** Displays the name of the input source.
- **Sync Detected:** Displays **Yes** if connection is detected or **No** if connection is not detected.
- **Resolution:** The resolution when video is detected. If no video is detected, the reported resolution will be **0x0@0**.
- **Source HDCP:**
 - Reports **HDCP 1.x** or **HDCP 2.x** when an HDCP source is connected.
 - Reports **Non-HDCP** when a non-HDCP source is connected.
 - Reports **No Signal** when no source is connected.

Outputs

- **Name:** Displays the name of the output source.
- **Sink Connected:** Displays **Yes** if connection is detected or **No** if connection is not detected.
- **Resolution:**
 - Displays the detected resolution when a video signal is being transmitted. In the event an HDMI cable is connected to the display/downstream device, but the device is turned off, the last detected resolution will be displayed until a new video signal is received.
 - Displays **0x0@0** when the video signal is not being transmitted.
- **Sink HDCP Capability:** 1.4 or 2.x. HDCP support
- **Disabled by HDCP:** When the status is Yes, audio will stream and there is no output video. When the status is No, the output video and audio is streamed.

Network

The **Network** section displays network-related information about the Presentation System, including the Hostname, Domain Name, and DNS Servers.

▼ Network	
Host Name	HD-MD8X8-4KZ-E-00107FE12B63
Domain Name	CRESTRON.CRESTRON.com
DHCP Enabled	Yes
IP Address	10.88.102.80
Primary Static DNS	10.88.2.51(DHCP)
Secondary Static DNS	10.88.2.52(DHCP)
Default Gateway	10.88.102.1
Link Active	Yes
MAC Address	00.10.7f.e1.2b.63
Subnet Mask	255.255.255.0

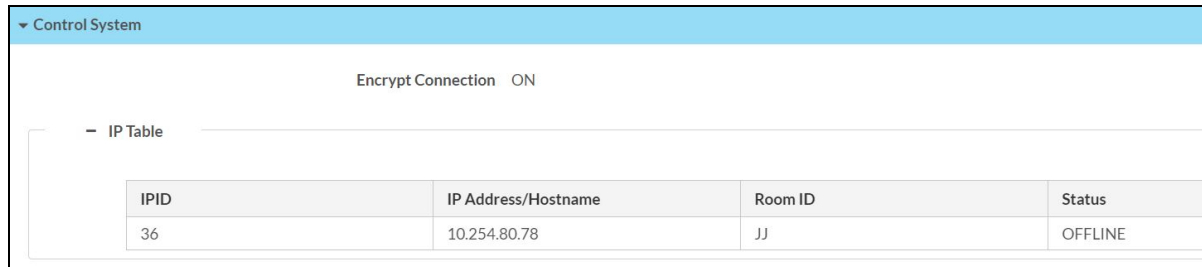
NOTE: By default, the host name of the Presentation System consists of the model name followed by the MAC address of the device. For example, HD-PS622-00107FE12B63.

Additionally, the following IPv4 addressing information is provided:

- Host Name
- Domain Name
- Primary Static DNS
- Secondary Static DNS
- DHCP Enabled
- IP Address
- Subnet Mask
- Default Gateway
- Link Active
- MAC Address

Control System

The **Control System** section displays connection information, consisting of the following:



The screenshot shows a web interface for the Control System. At the top, there is a blue header with a dropdown arrow and the text "Control System". Below the header, the text "Encrypt Connection ON" is displayed. Underneath, there is a section titled "- IP Table" which contains a table with the following data:

IPID	IP Address/Hostname	Room ID	Status
36	10.254.80.78	JJ	OFFLINE

- **Encrypt Connection:** ON or OFF
- **IPID:** Reports the currently used IP ID of the Presentation System.
- **IP Address/Hostname:** IP address of the control system.
- **Room ID:** Displays the room ID.
- **Status:** OFFLINE or ONLINE.

Settings

The **Settings** tab enables you to configure the Presentation System settings. The Settings page can be accessed at any time by clicking the Settings tab of the Presentation System interface.

Settings are saved in one of two ways:

- **Manual Save:** Click the **Save Changes** button in the **Actions** menu to save manually.
- **Autosaved:** This feature is available only for some settings. Once a setting is modified, the changes are automatically saved. The autosave status is indicated next to the section title as follows: (**Front Panel (Autosaved)**)



Information displayed on the **Settings** tab is organized into different sections.

System Setup

The **System Setup** section displays information about the Network, Front Panel, Cloud Settings, Auto Update, Date/Time, Control System, and Service Ports.

Network

The **Network** section displays network-related information about the Presentation System, including the Host Name, Domain, Primary Static DNS, and Secondary Static DNS.

The screenshot shows a network configuration interface. On the left, there are labels for 'Adapter 1' and 'DM Lite'. On the right, there are several input fields and toggle switches:

- Host Name:** Text input field containing 'Crestron-Bangalore'.
- Domain:** Text input field containing 'karthik'.
- Primary Static DNS:** Text input field, currently empty.
- Secondary Static DNS:** Text input field, currently empty.
- DHCP:** A blue toggle switch that is turned on (positioned to the right).
- IP Address:** Text input field containing '192.168.0.116'.
- Subnet Mask:** Text input field containing '255.255.255.0'.
- Default Gateway:** Text input field containing '192.168.0.1'.
- DM Lite Network:** A blue toggle switch that is turned on (positioned to the right).

NOTE: By default, the host name of the Presentation System consists of the model name followed by the MAC address of the device. For example, HD-PS622-00107FF40115. The host name that is entered here is also displayed on the top-left page of the portal.

Adapter 1

Displays DHCP, IP Address, Subnet Mask, and Default Gateway of the Presentation System.

DHCP

Set the **DHCP** slider to enabled (right) or disabled (left) to specify whether the IP address of the Presentation System is to be assigned by a DHCP (Dynamic Host Configuration Protocol) server.

- **Enabled:** When DHCP is enabled (default setting), the IP address of the Presentation System is automatically assigned by a DHCP server on the local area network (LAN) for a predetermined period of time.
- **Disabled:** When DHCP is disabled, manually enter information in the following fields:
 - **Primary Static DNS:** Enter a primary DNS IP address.
 - **Secondary Static DNS:** Enter a secondary DNS IP address.
 - **IP Address:** Enter a unique IP address for the Presentation System.

- **Subnet Mask:** Enter the subnet mask that is set on the network.
- **Default Gateway:** Enter the IP address that is to be used as the network's gateway.

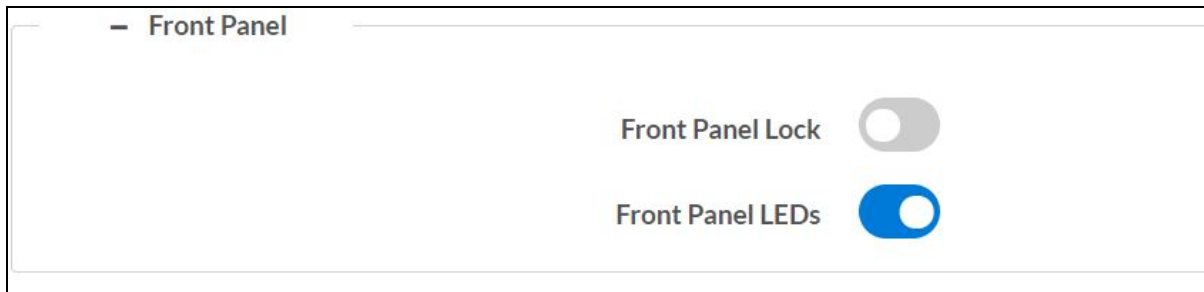
NOTE: Any changes made to the above properties require a reboot to take the effect.

DM Lite

When the **DM Lite Network** option is enabled, the connected HDBT device gets discovered by the network.

To save any new network entries, click **Save Changes** in the **Action menu**.

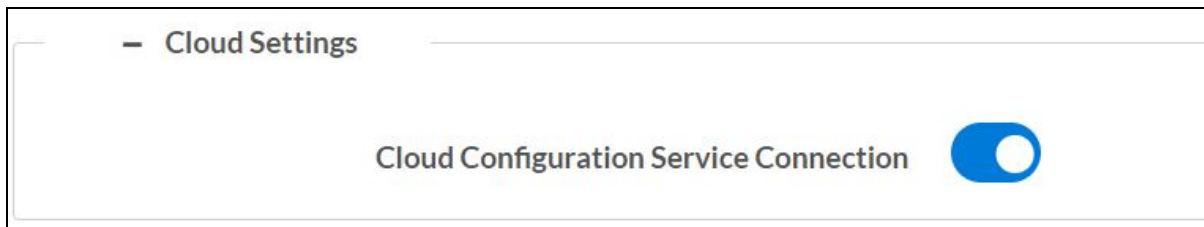
Front Panel



- **Front Panel Lock:** Move the **Front Panel Lock** slider to the right to lock the front panel buttons on the presentation system. When the front panel is locked, pressing any of the buttons (with the exception of the SETUP button) has no effect. Locking the front panel buttons may prevent accidental changes to the device settings. By default, the front panel is unlocked, allowing the front panel buttons to function.
- **Front Panel LEDs:** To enable the front panel LEDs, move the **Front Panel LEDs** slider to the right position. To disable the front panel LEDs, move the slider to the left position.

Cloud Settings

The **Cloud Settings** section provides functionality to enable or disable the XiO Cloud® configuration service connection. By default, the cloud configuration service connection is enabled. To disable the connection, move the slider to the left position.



Auto Update

The AV switchers can be automatically updated with the latest firmware at scheduled intervals.

– Auto Update

Auto Update

Custom URL

Custom URL Path

Schedule

Day of Week

Time of Day

Poll Interval Minutes

[Update Now](#)

1. Using the Crestron Auto Update Tool, generate a manifest file. The file is placed on an FTP (File Transfer Protocol) or SFTP (Secure File Transfer Protocol) server.
2. To enable auto update, move the **Auto Update** slider to the right position.
3. Define the URL to download the updates by doing either of the following:
 - a. Use the default URL to download the updates from the Crestron server.
 - b. Use a custom URL. To enable a custom URL, move the **Custom URL** slider to the right position. In the **Custom URL Path** text box, enter the path to the manifest file in the FTP or SFTP URL format.
4. Set a schedule for the automatic firmware update by doing either of the following:
 - a. Select the desired **Day of Week** and **Time of Day** (24-hour format) values.
 - b. Set the **Poll Interval** by entering a value from **60 - 65535** minutes. Enter a value of **0** to disable the Poll Interval.
5. Click **Update Now**.

NOTE: Clicking **Update Now** causes the firmware to be updated at the current time; however, the schedule that is set in step 4 above remains in effect.

Date/Time

Use the **Date/Time** section to configure the date and time settings of the Presentation System.

The screenshot shows the 'Date/Time' configuration page. It is divided into three main sections: Synchronization, NTP Time Servers, and Time Configuration.

- Synchronization:** A 'Time Synchronization' toggle switch is turned on (right). Below it is a blue 'Synchronize Now' button.
- NTP Time Servers:** A table with columns: Address, Port, Authentication Method, Authentication Key, and Key ID. One server is listed: 'pool.ntp.org' on port '123' with 'None' authentication. There are '+ Add' and '- Remove' buttons below the table.
- Time Configuration:** 'Time Zone' is set to '(UTC - 05: 00) Eastern Time (US & Ca)'. 'Date' is '10/15/2020'. 'Time' is '06:50'.

Time Synchronization

1. Move the **Time Synchronization** slider to specify whether time synchronization will be enabled (right) or disabled (left). By default, time synchronization is enabled.
2. In the **NTP Time Servers**, enter the URL of the NTP or SNTP server.

If you choose to synchronize with NTP time servers, you can synchronize with up to two NTP servers. For each server, the following configuration inputs are required:

- IP address or DNS name of NTP server
 - Network port of NTP server (default to 123)
 - Authentication method (None, MD5, or SHA1) (Default is None)
 - If authentication is set to MD5 or SHA1, an authentication key must be entered.
3. Click **Synchronize Now** to perform time synchronization between the device's internal clock and the time server.

Time Configuration

1. Click on the **Time Zone** drop-down menu to select the applicable time zone.
2. In the **Date** field, enter the current date.
3. In the **Time (24hr Format)** field, enter the current time in 24-hour format.

Click the **Save Changes** button to save the settings.

Click the **Revert** button to revert to the previous settings without saving.

Control System

<input type="checkbox"/>	IPID	IP Address/Hostname	Room ID
<input type="checkbox"/>	36	10.254.80.78	54

1. Move the **Encrypt Connection** slider to specify whether the encryption will be enabled (right) or disabled (left). By default, Encrypt Connection is enabled.
2. Enter the username in the **Control System Username** field.
3. Enter the password in the **Control System Password** field.
4. Enter the IPID of the AV switches in the **IPID** field.
5. Enter the IP address or hostname of the control system in the **IP Address/Hostname** field.
6. Enter the Room ID in the **Room ID** field.
7. Click the **Save Changes** button to save the new entries. The Control System Save message box appears, indicating that the control system settings were saved successfully. Click the **Revert** button to revert to the previous settings without saving.

Service Ports

The USB port available on the front panel of the Presentation System can be enabled or disabled using the USB Service Port. By default, the **USB Service Port** is disabled.

USB Service Port

- **USB Service Port:** To enable the **USB Service Port**, move the slider to the right position. To disable, move the slider to the left position.

USB port is used for the following:

- Upgrade or downgrade firmware
- Provide up to 5V 500 mA power to a USB powered device even when the USB Service Port is disabled.
- Perform actions based on the instruction in the Command.txt file. For more information, see the [Set Up Commands.txt File](#).
- Download device logs

To set up the *Commands.txt* file, create a text file with the name *Commands.txt* and enter any one of the following command for the device to perform its action:

- Save
- Load <firmware or device configuration file name>
- Restore

NOTE: The device executes only the first line of the *Commands.txt* file, and commands are not case sensitive.

Use the *Command.txt* file to perform the following actions:

- Save the device configuration file
- Load the previously saved device configuration file
- Load the device firmware using the file name to upgrade
- Factory restore

NOTE: Device shall create *result.txt* file after executing the command in the USB root directory.

To upgrade the firmware and download the logs:

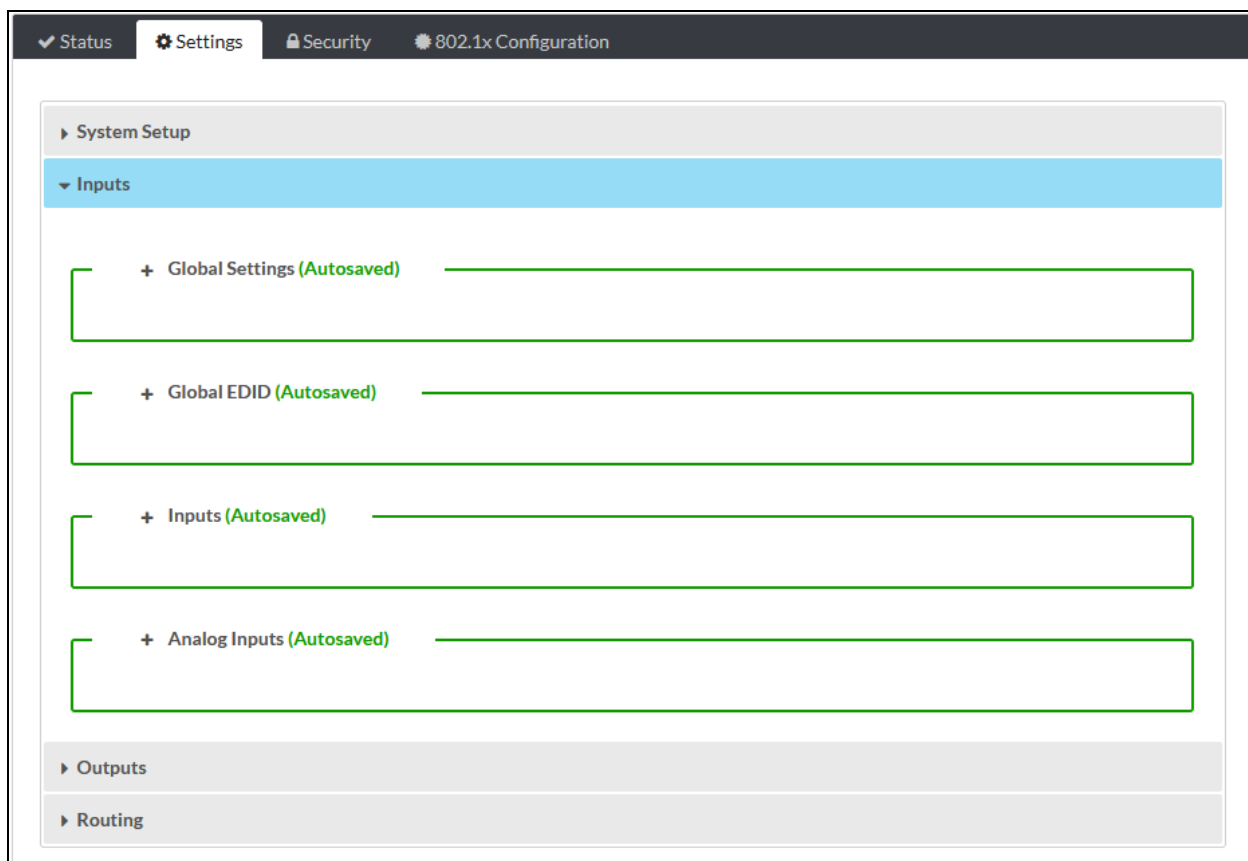
1. Enable the USB Service Port and plug in the USB device with the firmware file.
2. Press and hold the Setup button for 10 seconds to load the device firmware file from the USB.

NOTE: Once the firmware upgrade is complete, the device creates a *version.txt* file in the USB root directory to see the upgrade status.

3. Press the Setup button 10 times with minimum 250 ms and maximum of 5 seconds interval between each press. Setup LED will blink until the logs are downloaded.

Inputs

The Inputs section can be used to configure the HDMI input settings of the Presentation System by renaming one or more inputs, changing and applying EDID to specific inputs or to all inputs at once (Global EDID), and enabling or disabling HDCP (High-bandwidth Digital Content Protection) on individual inputs.



Global Settings

Enable or disable the **Priority Routing** for local inputs (HDCP inputs that are in the Presentation System) and transmitter inputs. Priority Routing works only if **Auto Routing** is enabled. When **Auto Routing** is disabled, you cannot modify any settings related to the priority routing. For more information on Auto Routing, see the [Routing](#) topic.

Global EDID

In the **Send EDID to all inputs** drop-down menu, select a built-in EDID file from a list of built-in predefined EDID files.

- Copy Output DMLITE1
- Copy Output DMLITE2

- Copy Output HDMI1
- Copy Output HDMI2
- 01 DM default
- Consumer 1080p60 HBR
- Consumer 720p60 HBR
- Laptop 16x9 1080p60 2ch
- Laptop 16x10 1920x1200 2ch
- Laptop 16x10 1280x800 2ch
- Laptop widescreen 2ch
- Consumer 1080p50 HBR
- Consumer 720p50 HBR
- Laptop 16x9 1080p50 2ch
- DM Default 4k 30Hz 2ch
- DM Default 4k 60Hz 2ch
- DM Default 4k 60Hz HBR
- 4K60 444 2CH Non-HDR
- 4K60 444 2CH HDR
- 4K60 444 2CH HBR HDR
- 4K60 444 2CH HDR DCI
- 4K60 444 HBR Non-HDR
- 4K60 444 2CH HDR10+
- 4K60 444 HBR HDR10+









The selected EDID is automatically sent to all inputs and appears in the EDID drop-down menu in the Inputs section of the page.

NOTE: Copy output DMLITE2 and Copy output HDMI2 are not applicable for HD-PS621.

Inputs

The **Inputs** section displays information and allows settings to be modified for available inputs.

– Inputs (Autosaved)

	Name	Sync Detected	EDID	Resolution	HDCP Receiver Capability	Source HDCP	Priority	Actions
	HDMI 1	No	4K60 444 2CH Non-HDR	0x0@0	Auto	No Signal	1 ▾	 Edit
	HDMI 2	No	4K60 444 2CH Non-HDR	0x0@0	Auto	No Signal	1 ▾	 Edit
	HDMI 3	No	4K60 444 2CH Non-HDR	0x0@0	Auto	No Signal	1 ▾	 Edit
	HDMI 4	No	4K60 444 2CH Non-HDR	0x0@0	Auto	No Signal	1 ▾	 Edit
	HDMI 5	No	4K60 444 2CH Non-HDR	0x0@0	Auto	No Signal	1 ▾	 Edit
	HDMI 6	No	4K60 444 2CH Non-HDR	0x0@0	Auto	No Signal	1 ▾	 Edit
	DMLITE 7	No	4K60 444 2CH Non-HDR	0x0@0	Auto	No Signal	1 ▾	 Edit
	DMLITE 8	No	4K60 444 2CH Non-HDR	0x0@0	Auto	No Signal	1 ▾	 Edit

- **Name:** Displays the name of the input. To modify the name of the input, click **Edit** under the **Actions** column and enter the new name in this field.
- **Sync Detected:** Indicates whether a valid video signal is detected at the corresponding input.
- **EDID:** Displays the selected predefined EDID file. To modify the existing setting, click **Edit** under the **Actions** column and select an EDID from the **EDID** drop-down menu.
- **Resolution:** The resolution when video is detected. If no video is detected, the reported resolution will be 0x0@0.
- **HDCP Receiver Capability:** Specifies whether HDCP support for this input will be Disabled, Auto, HDCP 1.4 or HDCP 2.x. To modify the existing setting, click **Edit** and select the desired option from the **HDCP Receiver Capability** drop-down menu.
- **Source HDCP:** Reports **HDCP 1.x** or **HDCP 2.x** when the HDCP source is connected. Reports **Non-HDCP** when a non-HDCP source is connected and reports **No Signal** when no source is connected.

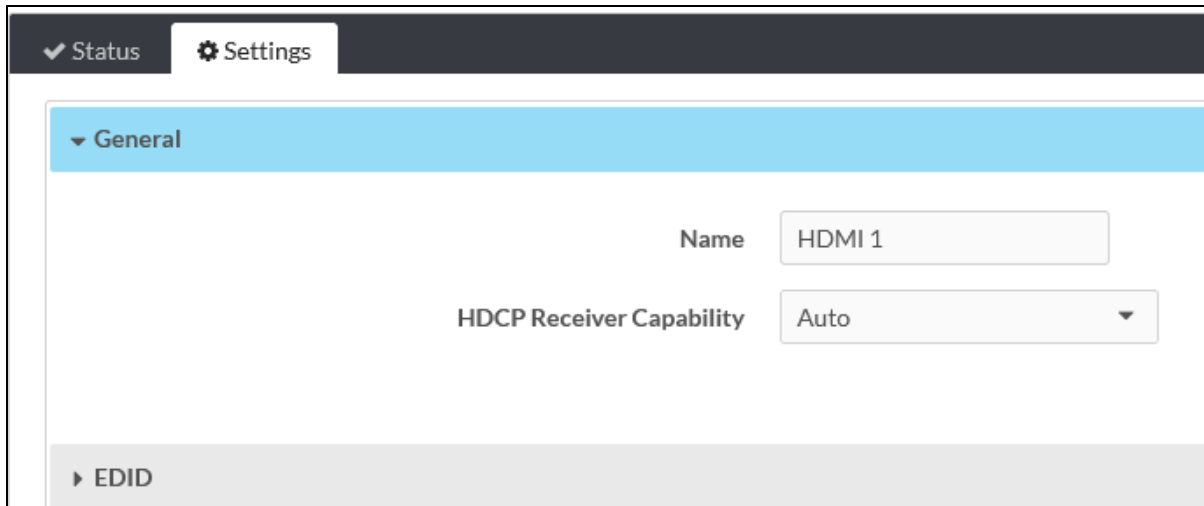
- **Priority:** Use the drop-down list to set the priority.

The lowest number has the highest priority. For example, priority 1 has a higher priority than priority 4. By default, all of the inputs are set to priority 1.

NOTE: When the priority is set with the same value for other inputs, then it switches to the latest connected input.

Edit an Input Port

Edit the input port by clicking the **Edit** button on the row. The following options appear:

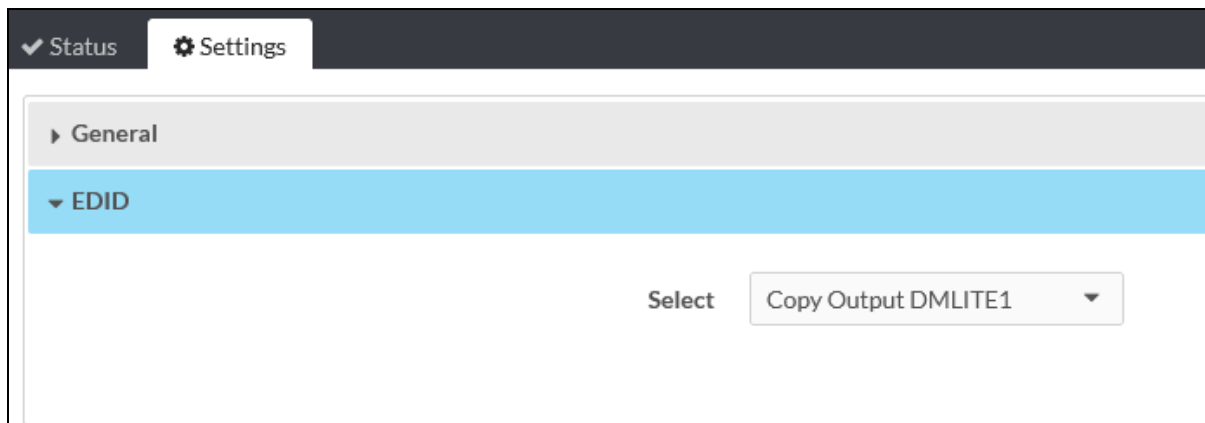


The screenshot shows a web interface with a dark header bar containing a 'Status' tab (with a checkmark) and a 'Settings' tab (with a gear icon). Below the header, a light blue bar indicates the 'General' section is expanded. The main content area contains two configuration fields: 'Name' with a text input field containing 'HDMI 1', and 'HDCP Receiver Capability' with a dropdown menu currently set to 'Auto'. At the bottom of the settings area, there is a grey bar with a right-pointing arrow and the text 'EDID'.

General

- **Name:** Port name
- **HDCP Receiver Capability:** This enables you to allow or block the HDCP encrypted content. Select a value from the drop-down list:
 - **Auto:** By default, auto is selected. The source content is streamed to the output.
 - **Disable:** Allows only non-HDCP content.
 - **HDCP 1.4:** Allows 1.4 and non-HDCP content.
 - **HDCP 2.x:** Allows 1.4, 2.x, and non-HDCP content.

EDID



Select an EDID from the drop-down list. This is used to set the EDID to the input port.

Input Port Signal Status

The following details are shown in the **Status** tab:

The screenshot shows the 'Input Signal' status page. It displays the following information:

- Sync Detected: Yes
- Resolution: 3840x2160@24
- Source HDCP: Inactive

Under the 'More Details' section, the following information is shown:

- Source Content Stream Type: 0
- HDCP State: Not Required
- Interlaced: No
- Horizontal Resolution: 3840
- Vertical Resolution: 2160
- Frames Per Second: 24
- Aspect Ratio: 16:9
- Audio Format: PCM
- Audio Channels: 2

Under the 'Inputs' section, a table lists the available input ports:

Name	Sync Detected	Resolution	Source HDCP	HDCP State	Interlaced	FPS	Aspect Ratio	Audio Format	Audio Channels
HDMI1	No	3840x2160@24	NA	Not Required	No	24	16:9	NA	0
HDMI2	No	0x0@0	NA	Not Required	No	0	No Signal	NA	0
VGA3	No	0x0@0	NA	Not Required	No	0	No Signal	NA	NA

Input Signal

- **Sync Detected:** Displays **Yes** if connection is detected or **No** if connection is not detected.
- **Resolution:** The resolution when video is detected. If no video is detected, the reported resolution will be **0x0@0**.
- **Source HDCP:**
 - Reports **HDCP 1.x** or **HDCP 2.x** when an HDCP source is connected.
 - Reports **Non-HDCP** when a non-HDCP source is connected.
 - Reports **No Signal** when no source is connected.

More Details

- **Source Content Stream Type:** 0 or 1
- **HDCP State:** Shows the current state of the input.
- **Interlaced:**
 - Interlaced Input signal: Yes
 - Progressive Input signal: No

- **Horizontal Resolution:** Reports the input signal horizontal resolution. Valid values are 0 to 4096.
- **Vertical Resolution:** Reports the input signal vertical resolution. Valid values are 0 to 2160.
- **Frames Per Second (FPS):** Reports the input signal frames per second. Valid values are 0 to 120.
- **Aspect Ratio:** Reports the input signal aspect ratio. Valid aspect ratios are:
 - No Signal
 - 5:4
 - 4:3
 - 16:10
 - 16:9
- **Audio Format:** Reports the number of audio channels detected for the input signal. Valid range is 0 to 8. When no audio is detected, it displays as 0.
- **Audio Channels:** Reports the audio format for the input signal.
Valid formats are:
 - No Audio
 - PCM
 - LBR Compressed
 - HBR Compressed

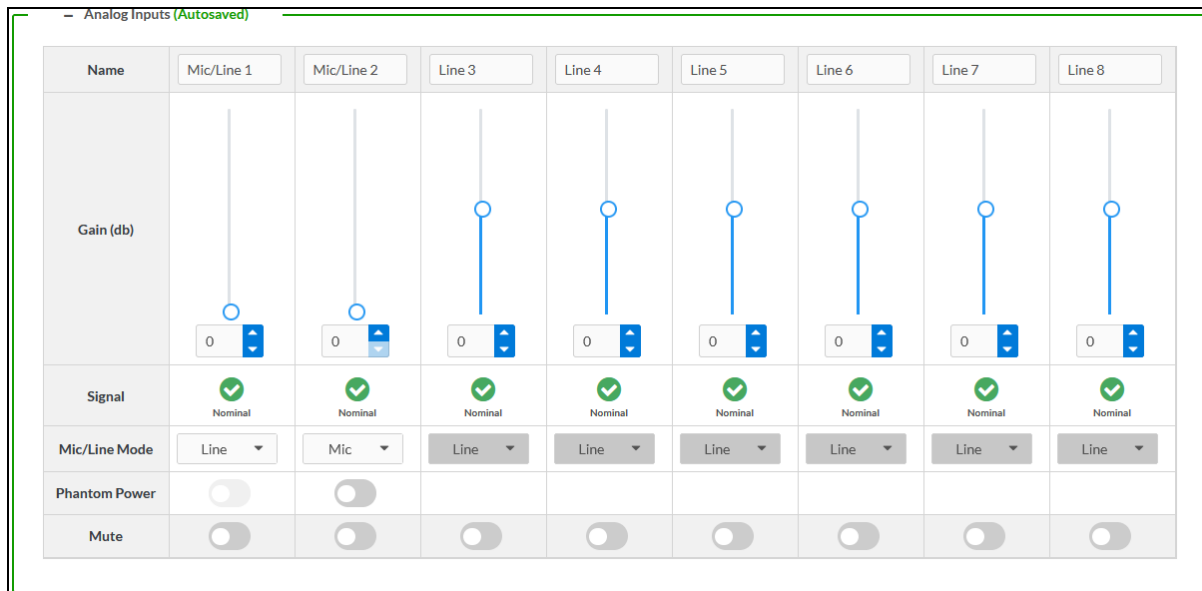
Inputs

- **Name:** Displays the name of the input source.

NOTE: The rest of the table properties are described in the [Input Settings](#) and [More Details](#) sections.

Analog Inputs

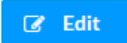
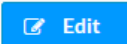
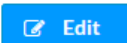
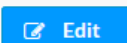
The Analog Inputs section is used to configure the Mic and Line input ports.



- **Name:** Name of the Mic or Line input.
- **Gain (dB):** Used to control the volume level.
- **Signal:** Indicates that the Mic or Line signal level has exceeded 50% of the maximum level supported by the hardware, or 2 dB below the input clip level.
- **Mic/Line Mode:** Used to set the mode of the input. Applicable only for Mic/Line input 1 and 2.
- **Phantom Power:** If enabled, it delivers the power to the Phantom Mic. By default, it is disabled.
- **Mute:** Used to mute a Mic or Line input.

Outputs

The **Outputs** section can be used to configure the HDMI and Audio output settings of the Presentation System.

- Outputs					
	Name	Sink Connected	Resolution	HDCP Transmitter Mode	Actions
	AUX 1	N/A		N/A	 Edit
	AUX 2	N/A		N/A	 Edit
>	HDMI/DM LITE 1		1920x1080@60		 Edit
>	HDMI/DM LITE 2		1920x1080@60		 Edit

The Outputs section displays information and allows settings to be modified for available outputs.

- **Name:** Displays the name of the output. To modify the name of the output, click **Edit** under the **Actions** column, and then enter the new name in this field.
- **Sink Connected:** **Yes** is displayed when connection is detected or **No** is displayed when no connection is detected. For AUX outputs, this will be N/A.
- **Resolution:** The resolution when video is detected. If no video is detected, the reported resolution will be 0x0@0. For AUX outputs, this will be N/A.
- **HDCP Transmitter Mode:** Displays the selected HDCP Transmitter Mode value of the HDMI Output. For AUX outputs, this will be N/A.

Edit AUX Output Settings

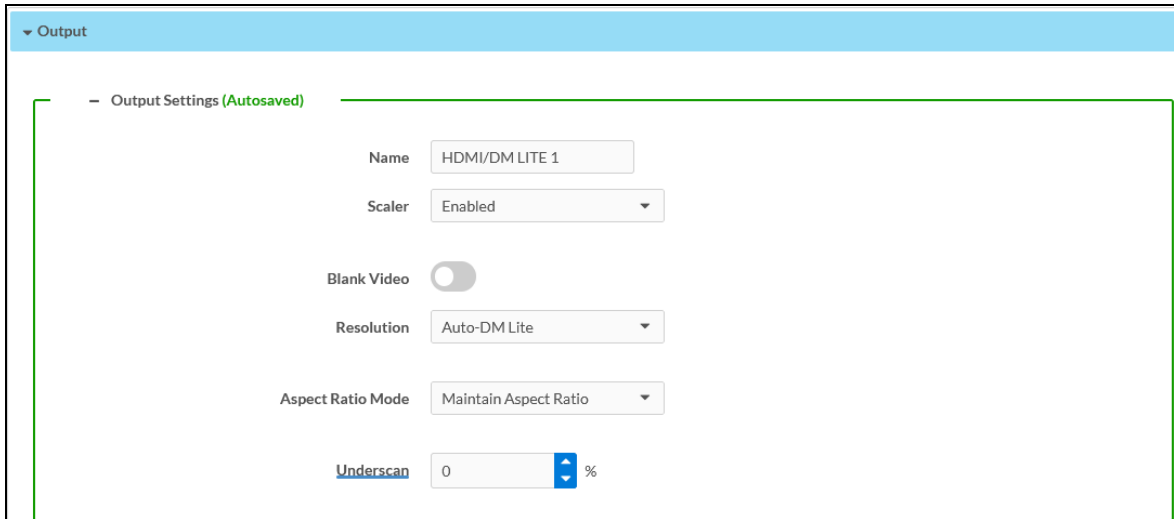
Analog AUX output will only support the two channel PCM audio through mixer capability. When you click **Edit** under the **Actions** column, the following options appear:

- Edit the name of the AUX 1/2 output in the **Name** field (optional).
- **Gain (dB)**: Used to control volume level of the individual listed ports at the AUX 1/2 output. The Gain slider has a valid range of -80 to 20 dB. The default value for all Gain is 0 dB. Gain has two controls: slider and text entry field.
- **Mute**: Used to mute the individual listed ports.
- **Volume**: Used for overall output gain. The Volume slider has a valid range of -80 to 20 dB. The default value for all volumes is 0 dB. Output Volume has two controls: slider and text entry field.
- **Stereo**: Used to enable stereo at the AUX output.
- **Mute**: Used to mute all listed ports.
- **Delay**: Used to delay (in ms) the audio played at the AUX output. Delay has two controls: slider and text entry field.

NOTE: The HDMI output port audio settings at the AUX output will be disabled until an input is routed to the output.

Edit HDMI/DMLITE Output Settings

1. Click the **Edit** button ( **Edit**) in the **Actions** column to edit the HDMI settings of the selected HDMI output.



The screenshot shows a web interface for editing output settings. At the top, there is a blue header with a dropdown arrow and the text "Output". Below this is a section titled "Output Settings (Autosaved)" with a minus sign icon. The settings are as follows:

- Name:** HDMI/DM LITE 1
- Scaler:** Enabled
- Blank Video:** Off (toggle switch)
- Resolution:** Auto-DM Lite
- Aspect Ratio Mode:** Maintain Aspect Ratio
- Underscan:** 0 %

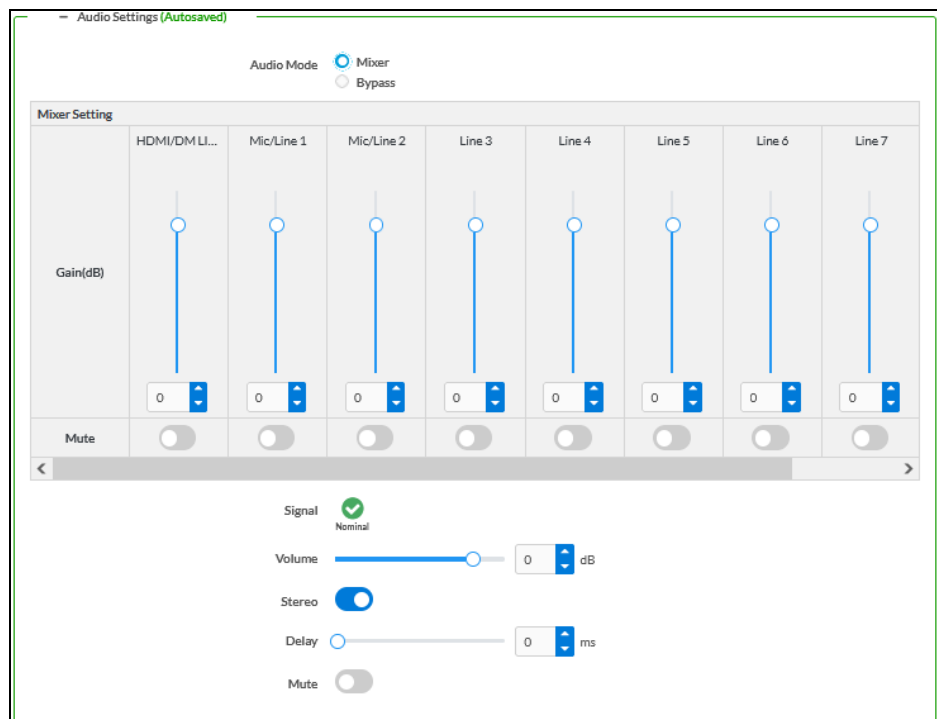
2. In the **Edit Output** dialog, under the **Output Settings** section, update the following:

- a. Edit the name of the HDMI output in the **Name** field (optional).
- Select the value from the **Scaler** drop-down list:
 - **Disable**: Follows the source resolution while displaying the video.
 - **Enable**: Sets the resolution as per your requirement.
 - Move the **Blank Video** slider to the right position (enabled) to blank the HDMI output signal video. The output continues to pass the audio signal while the video signal does not get displayed.
 - Select the **Resolution** from the drop-down list to upscale or downscale the video. The following resolutions are listed:
 - Auto - HDMI
 - Auto - DM LITE (default)
 - 720p50
 - 720p60
 - 1080i 25Hz
 - 1080i 30Hz
 - 1080p 24Hz
 - 1080p 25Hz
 - 1080p 30Hz
 - 1080p 50Hz
 - 1080p 60Hz
 - 3840x2160@24
 - 3840x2160@25
 - 3840x2160@30
 - 3840x2160@50
 - 3840x2160@60
 - 4096x2160@24
 - 4096x2160@25
 - 4096x2160@30
 - 4096x2160@50
 - 4096x2160@60

- Select an option from the **Aspect Ratio Mode** drop-down list:
 - **Maintain Aspect Ratio:** It maintains the source aspect ratio while displaying the video.
 - **Stretch To Fit:** If the aspect ratio of the source doesn't match the aspect ratio of the display, the image is stretched so that no black bars are displayed.
 - **1:1 Pixel Mapping:** Output is displayed pixel to pixel as it comes in. For example, if the output resolution is 1080p, and the input resolution is 640 x 480, this will result in a 640 x 480 display in the middle of the screen, with a black bar surrounding it.
 - **Zoom:** Image is zoomed in to fill the screen, maintaining the aspect ratio and eliminating black bars, but a portion of the image may be lost.
- Set the **Underscan** value of the device (used to fit to a display). Range is 0-10%, in 0.1% steps.

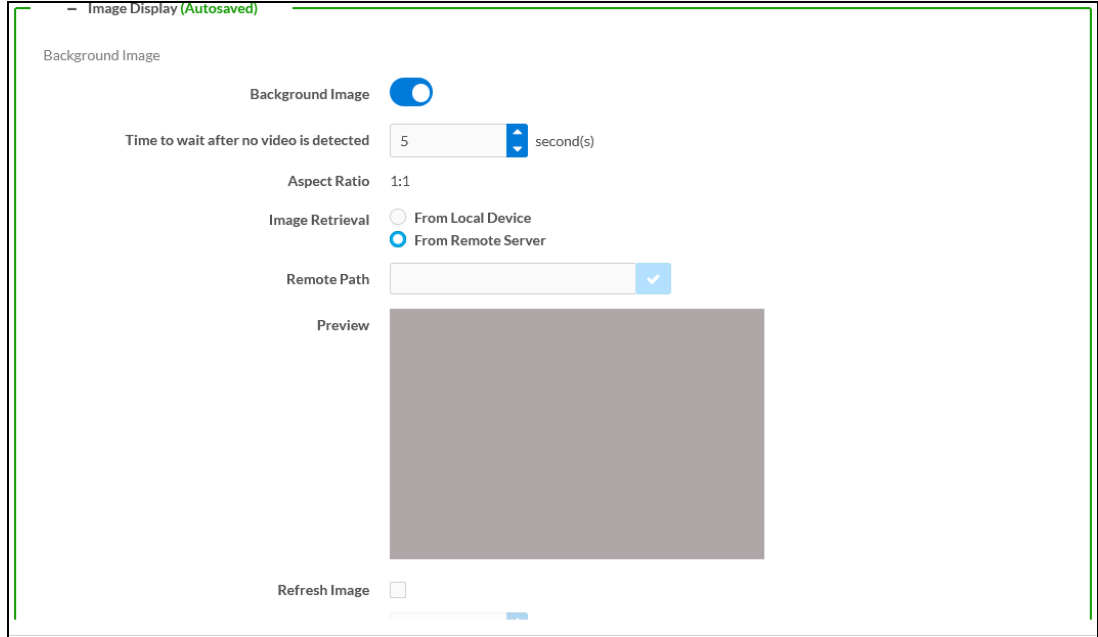
b. Under the **Audio Settings** section, edit the following values:

- **Audio Mode:**
 - When **Audio Mode** is set to **Mixer**, the mixer is used for mixing both audio and analog inputs (that is, Mic/Line 1 and 2, along with Line 3 - 8). **Volume, Stereo, and Delay** options are only available for the Mixer mode.



- **Gain (dB):** Used to control volume level of the individual listed ports at the output 1 and 2. The Gain slider has a valid range of -80-20 dB. The default value for all Gain is 0 dB. Gain has two controls: slider and text entry field.
 - **Mute:** Used to mute the individual listed ports.
 - **Signal:** Indicates that the Mic signal level has exceeded 50% of the maximum level supported by the hardware, or 2 dB below the input clip level.
 - **Volume:** Used for overall output gain. The Volume slider has a valid range of -80-20 dB. The default value for all volumes is 0 dB. Output Volume has two controls: slider and text entry field.
 - **Stereo:** Used to enable stereo at the AUX output.
 - **Delay:** Used to delay (in ms) the audio played at the AUX output. Delay has two controls: slider and text entry field.
 - **Mute:** Used to mute all the listed ports.
- When **Audio Mode** is set to **Bypass**, mixer settings are unavailable. Selected input audio will pass to both the HDMI and DM Lite outputs unaffected.
 - **Signal:** Shows the output audio signal strength.
 - **Mute:** Used to mute the output audio.

c. Under the **On Screen Display > Image Display** section, edit the following values:



- **Background Image:** When the input is not routed to an output, this image is displayed in the output.
- **Time to wait after no video is detected:** Set the time to wait until no video is detected at the output. If the video is not detected, then the background image is displayed.
 - The minimum time is 5 seconds
 - The maximum time is 65,535 seconds
 - The default time is 5 seconds
- **Aspect Ratio:** Always display actual (1:1) image size.

- **Image Retrieval:** Specify from where the image needs to be retrieved.

NOTE: The minimum size of the image should be 50 x 50 px and the supported image formats are JPEG, JPG, JFIF, PNG, transparent PNG, and BMP. The device shall honor rotation metadata image if supported by the format.

- **From Local Device:** Click **Manage Image > Add > Browse** to select images from your local device. Once the image is selected, the image name appears in the **Image File** drop-down list. The selected image appears in the preview section.

NOTE: When the image is uploaded and processed, the status of the image appears as Error State, Pending State, Processing State, or Ready State.

- **From Remote Server:** Enter the image URL in the **Remote Path** field.
- **Preview:** Previews the selected image. You can see the status of the image during the time of upload by hovering the cursor over the image preview area.
- **Refresh Image:** Enable this feature if your remote image is changed.

The screenshot shows the configuration panel for an image overlay. It includes the following elements:

- Refresh Image:** A checked checkbox.
- Refresh Rate:** A dropdown menu set to '1' with the unit 'minute(s)'.
- Image Overlay:** A toggle switch that is turned on.
- Image Location:** A grid of icons representing different image positions.
- Custom:** A checked checkbox.
- X Coordinate:** A dropdown menu set to '1'.
- Y Coordinate:** A dropdown menu set to '1'.
- Transparency:** A slider set to '0' with a '%' sign.
- Image Retrieval:** Two radio buttons: 'From Local Device' (selected) and 'From Remote Server'.
- Image File:** A dropdown menu showing 'WhatsApp Image 2021-...'.
- Manage Images:** A blue button at the bottom.

- **Refresh Rate:** Set the duration of the refresh rate in minutes.
- **Image Overlay:** The image appears in the foreground of the video.

NOTE: The fields such as Image Retrieval, Image File, Remove Path, Manage Images, and Preview can be configured as mentioned in the [Background Image](#) section.

- **Image Location:** Set the Image location on the output display. You can also set a custom location by changing the X and Y coordinates.
- **X Coordinate** and **Y Coordinate:** Select where the overlay text will be positioned from the Text Location selector, or select **Custom** to enter an exact X Coordinate and Y Coordinate.
- **Y Coordinate:** Set the value for Y Coordinate.
- **Transparency:** Move the **Transparency** slider or enter a value to adjust the transparency. The exact transparency value (ranging from 0 to 100%) is displayed in the field beside the transparency slider.

d. Under the **Text Overlay** section, enter the following:

- **Text Overlay:** Move the **Text Overlay** slider to enabled (right) or disable (left). By default, the text overlay feature is disabled.
- **Text to Display:** Type text to display over the video.
- **Background Transparency:** Move the **Background Transparency** slider or enter a value to adjust the background transparency. The exact transparency value (ranging from 0 to 100%) is displayed in the field beside the transparency slider.
- **Text Location:** Set the text location on the output display. You can also set a custom location by changing the X and Y coordinates.
- **X Coordinate** and **Y Coordinate:** Select where the overlay text will be positioned from the Text Location selector, or select **Custom** to enter an exact X Coordinate and Y Coordinate.

3. Click **Done** to save and close the dialog.

Edit Individual DM Lite or HDMI Output Settings

Under the **Outputs** section, edit an individual DM Lite or HDMI output setting:

▼	HDMI/DM LITE 1		3840x2160@60		Edit
	DM LITE 1	Yes		Auto	Edit
	HDMI 1	Yes		Auto	Edit

1. Click the **Edit** button ([Edit](#)) in the **Actions** column to edit the individual settings of the selected output.
2. Under the **Output Settings**, set the following options:

Output Settings (Autosaved)

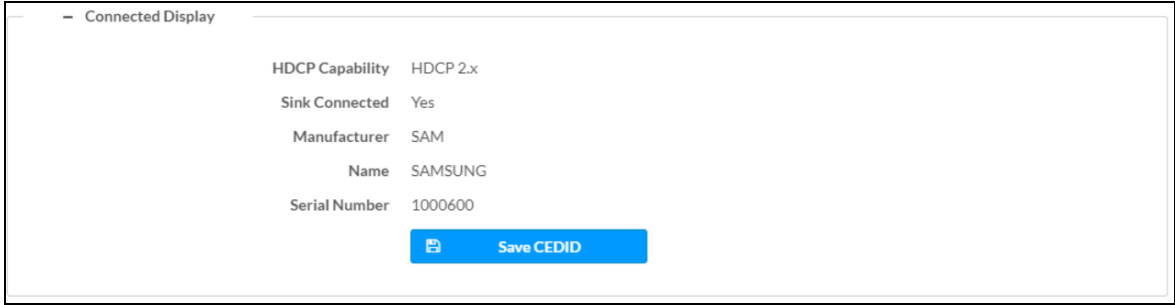
Disable Output

Name

HDCP Transmitter Mode

- a. Move the **Disable Output** slider to the right to disable the audio and video outputs. To enable the audio and video outputs, move the slider to the left.
- b. Edit the name of the HDMI output in the **Name** field (optional).
- c. Select the desired option from the **HDCP Transmitter Mode** drop-down menu to set the HDCP Mode as follows:
 - **Auto:** Allows all the content to be transmitted.
 - **Follow Input:** Authenticates each time the input sync changes its state. The output will authenticate to the level reported at the Input.
 - **Force Highest:** Authenticates to the highest level HDCP supported by the downstream device and always maintains sync.
 - **Never Authenticate:** The HDMI output will blank if the input is HDCP encrypted.

3. Under the **Connected Display** section, the following details are displayed:



- **HDCP Capability:** The detected HDCP status of the display connected to the output port.
- **Sink Connected:** If Yes, indicates a valid signal is present at the output.
- **Manufacturer:** Displays the connected display manufacturer short name.
- **Name:** Displays the connected display manufacturer name.
- **Serial Number:** Displays the connected display's serial number.
- **Save CEDID:** Click **Save CEDID** to save the details in a file.

4. Under the **Output Signal** section, the following details are displayed:



- **Transmitting:** Displays the current transmission state of the output. Yes is transmitted. No means not transmitted.
- **Resolution:** Displays the current output resolution.
- **Disabled by HDCP:** When the status is Yes, audio will stream and there is no output video. When the status is No, the output video and audio is streamed.

5. Under the **Automatic Display Power** section, set the following options:

The screenshot shows the 'Automatic Display Power (Autosaved)' configuration page. It features several settings: 'Automatic Power' is a toggle switch turned on; 'Automatic Power Trigger' is a dropdown menu set to 'Sync'; 'Command Interface' is a dropdown menu set to 'CEC' with an information icon to its right; 'Command Format' is a dropdown menu set to 'Hex'; 'Command Terminator' is a dropdown menu set to 'None'; 'Output Timeout' is a dropdown menu set to '5 seconds'. Below these are two sections: 'Power Off' with a 'Command' dropdown set to 'Power Off: RCP and SS' and a blue 'Test' button; and 'Power On' with a 'Command' dropdown set to 'Power On: RCP and IVO' and a blue 'Test' button. At the bottom, there is an 'InputControl' toggle switch turned on, a 'Delay' dropdown menu set to '5 seconds', and a 'Command String' text input field with a blue 'Test' button below it.

- a. **Automatic Power:** For the Presentation System, the display device can be turned on or off automatically via RS-232, IR, CEC (Consumer Electronics Control), or Drivers. You can enable automatic power by setting the **Automatic Power** slider to the right position. By default, automatic power is enabled.

- b. **Automatic Power Trigger:** There are three ways to trigger the power:
- i. **Sync:** Triggers based on the Sync Detection.
 - ii. **Occupancy:** Triggers based on the Occupancy state. There are three states:
 - i. unknown
 - ii. occupied
 - iii. unoccupied
 - iii. **Sync + Occupancy:** Triggers based on the Sync Detection and Occupancy as described in the following table:

Sync Detection	Occupancy State	Output Power
No	Unoccupied	Off
No	Occupied	On
Yes	Unoccupied	On
Yes	Occupied	On
No	Unknown	Off
Yes	Unknown	On

- c. **Command Interface:** The selected interface (CEC, RS232, IR, or Drivers) will send the power-on or power-off command as specified in the Power Off (No Sync Detected) and Power On (Sync Detected) sections.

Set **Command Interface** to one of the following:

- **None:** If None is selected, no command will be sent.
- **CEC:** Enter the CEC command in the Power Off (No Sync Detected) and Power On (Sync Detected) sections. If a custom command is desired, enter the desired command, and then select the desired terminator and format.

To test the command, click the **Test** button.

- **RS-232:** If RS232 is selected in step 4, enter the RS232 command in the Power Off (No Sync Detected) and Power On (Sync Detected) sections, and then select the desired terminator and format.

To test the command, click the **Test** button.

- **IR: Port 1:** Select IR from the drop-down list and click the **Load IR File** button. Browse to select and click **Load** to upload the desired IR file.
- **Drivers:** Select the driver from the drop-down list.

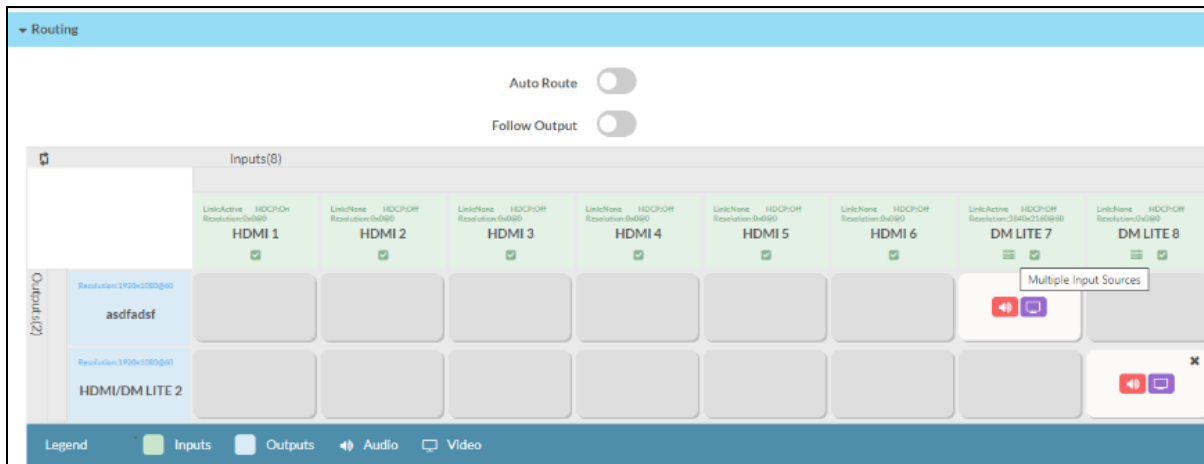
- d. **Command Format:**

- **Hex** (default): When **Hex** is selected, it allows only two hexadecimal characters from 0-9 and A-F. Once you enter two characters and enter a space it gets capitalized.
- **Ascii:** When **Ascii** is selected, it allows any text as a command.

- e. **Command Terminator:** Select the value from the drop-down list to append to the terminator.
 - **None** (default)
 - **CR**
 - **LF**
 - **CR LF**
- f. **Output Timeout:** Set Output Timeout to enable the display device to turn off after a predetermined period of time in which no signal is detected. Select the desired number of seconds, or select **Custom** and then set the desired timeout in seconds.
- g. **Command (Power Off):** Triggers the power off command as per the selection.
- h. **Command (Power On):** Triggers the power on command as per the selection.
- i. **InputControl:** Enable (slide to right). Set the **Delay** from the drop-down list and type the command in the **Command String** field to trigger the operation.

Routing

The Routing section can be used to establish routing between inputs and outputs. Here you can see the status of the current routing.

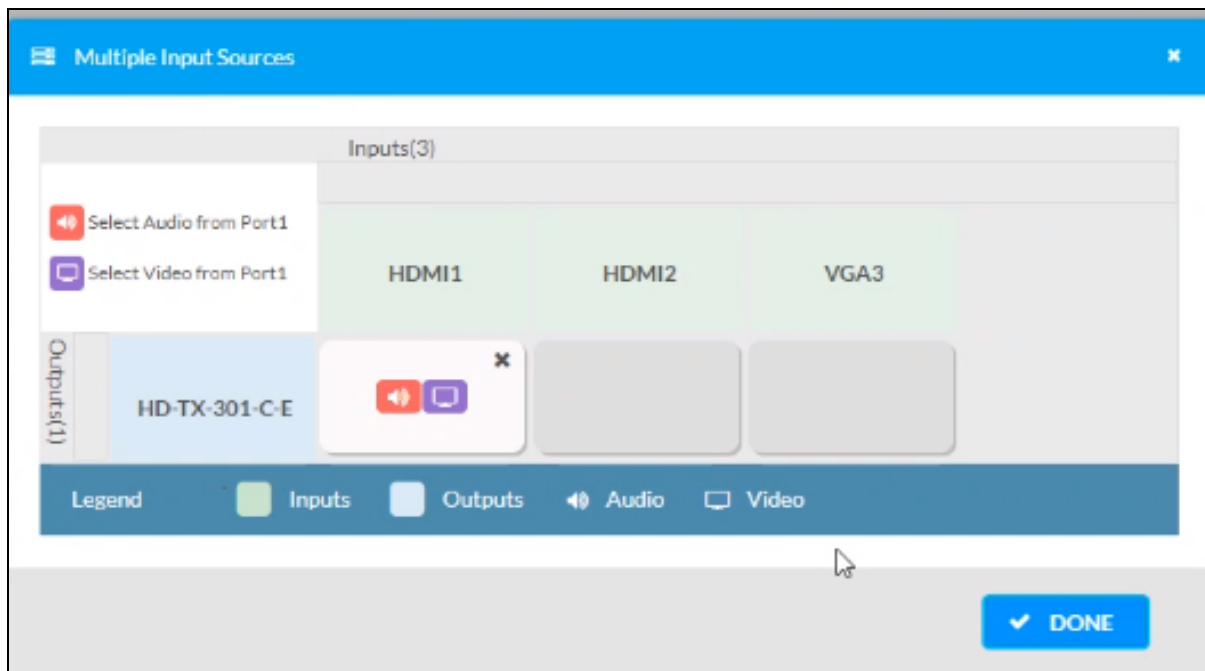



Set the **Auto Route** slider to enabled (right) or disabled (left). Auto route order is based on the order the sources are connected or disconnected. It does not take manual routes triggered by the user via front panel, web, or join interface into consideration. If the last routed or connected source is removed, it will go back to the last connected active source.

Move the **Follow Output** slider to ensure that the same video displayed on output 1 is mirrored on output 2.

NOTES:

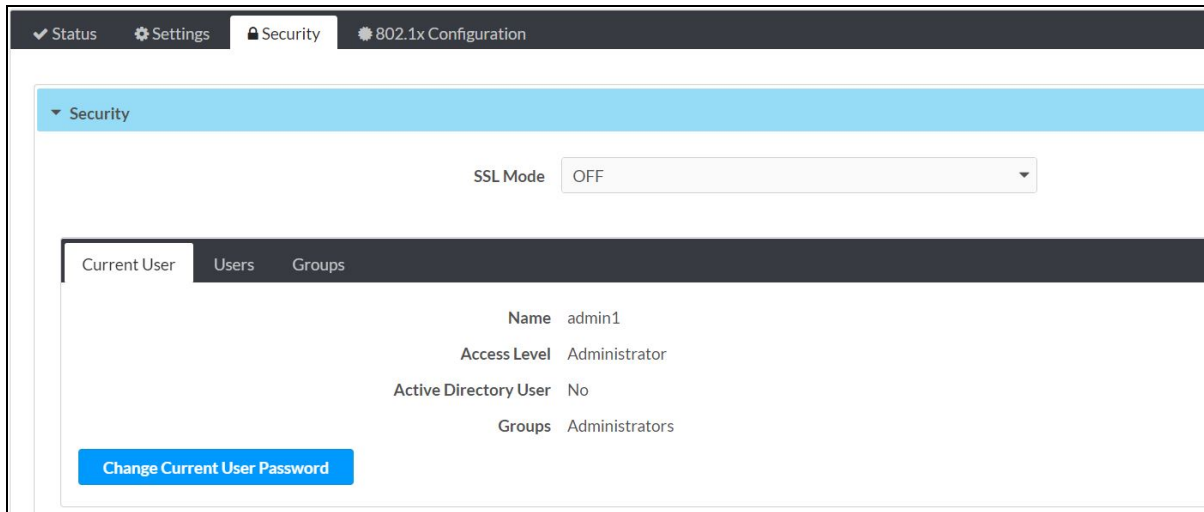
- By default, the **Auto Route** is enabled.
- **Follow Output** is applicable only for HD-PS622.



To route the inputs of the transmitter connected to the DM Lite port, click the **Multiple Input Sources** button () and select the input from the transmitter in the Multiple Input sources dialog.

Security

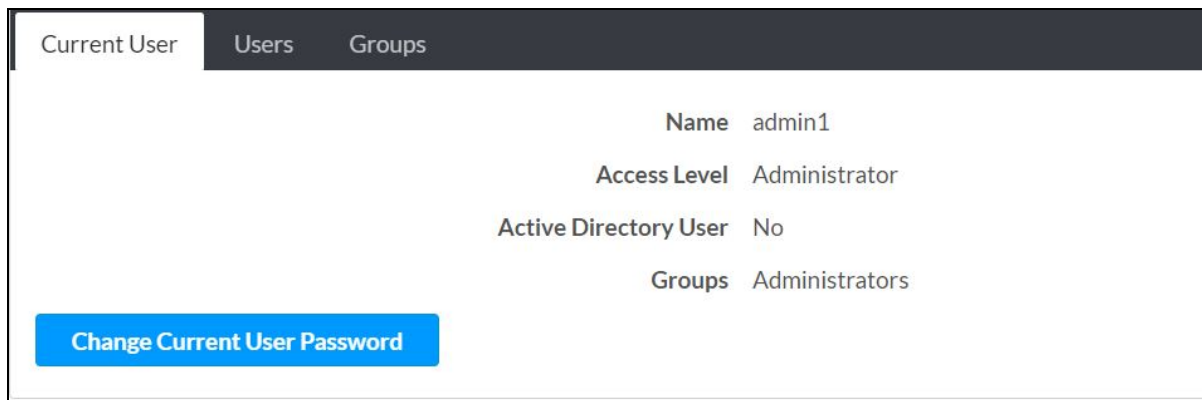
Click the **Security** tab to configure security for users and groups and to allow different levels of access to the functions of the Presentation System. By default the security is disabled.



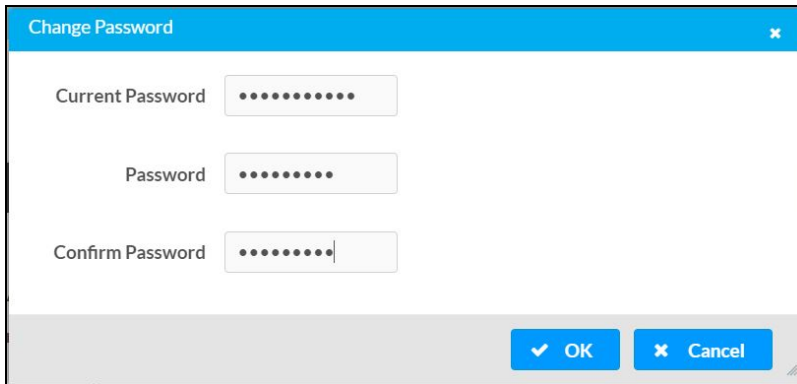
Select **Encrypt and Validate**, **Encrypt**, or **OFF** in the **SSL Mode** drop-down menu, to specify whether to use encryption. By default SSL Mode is set to OFF.

Current User

Click the **Current User** tab to view read-only information or to change the password for the current user.



1. Click the **Change Current User Password** button to provide a new password for the current user.
2. In the **Change Password** dialog, enter the current password in the **Current Password** field, the new password in the **Password** field, and then re-enter the same new password in the **Confirm Password** field.

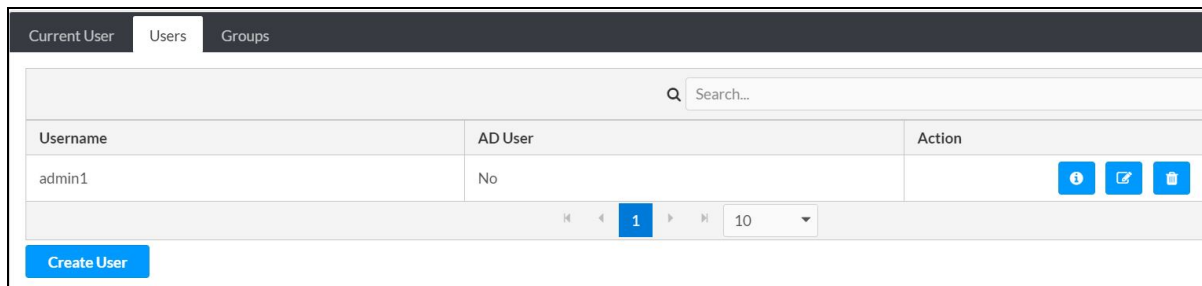


A dialog box titled "Change Password" with a close button (X) in the top right corner. It contains three input fields: "Current Password" with 10 dots, "Password" with 10 dots, and "Confirm Password" with 10 dots and a vertical cursor. At the bottom right, there are two buttons: "OK" with a checkmark icon and "Cancel" with an X icon.




3. Click **OK** to save or click **Cancel** to cancel the changes.

Users

Click the **Users** tab to view and edit user settings. The **Users** tab can be used to add or remove local and Active Directory users and preview information about users.



The interface shows three tabs: "Current User", "Users", and "Groups". The "Users" tab is active. At the top, there is a search bar with a magnifying glass icon and the text "Search...". Below the search bar is a table with the following structure:

Username	AD User	Action
admin1	No	  

Below the table, there are navigation arrows (left, right, first, last) and a page number "1" in a blue box. To the right of the page number is a drop-down menu showing "10". At the bottom left, there is a blue button labeled "Create User".

Use the **Search Users** field to enter search term(s) and display users that match the search criteria.

If users listed in the **Users** table span across multiple pages, navigate through the list by clicking a page number or by using the left or right arrows at the bottom of the **Users** pane to move forward or backward through the pages.

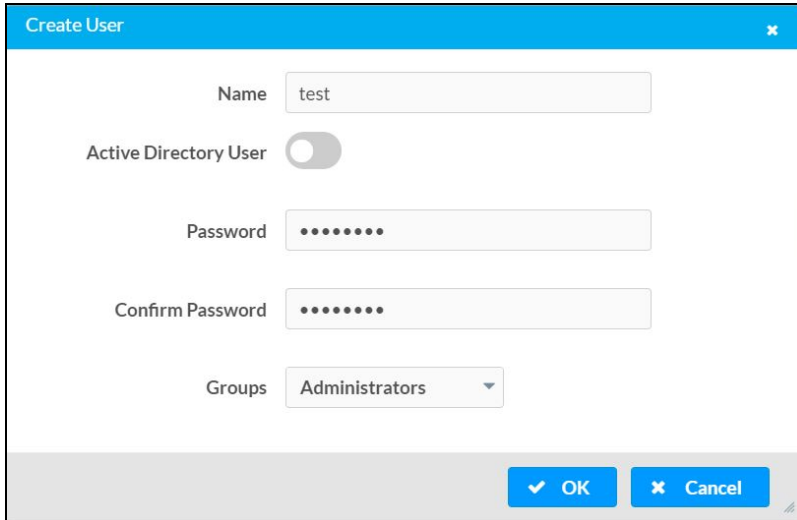
Each page can be set to display 5, 10, or 20 users by using the drop-down menu to the right of the navigation arrows.

Information about existing users is displayed in table format and the following details are provided for each user.

- **Username:** Displays the name of the user.
 - **AD User:** Displays whether the user requires authentication using Active Directory. Click the corresponding button in the Actions column to view detailed user information.
- To create a new user, click the **Create User** button.

Create a New Local User

1. Click the **Create User** button in the **Users** tab.
2. In the **Create User** dialog, enter the following:



- a. Enter a user name in the **Name** field. A valid user name can consist of alphanumeric characters (letters a-z, A-Z, numbers 0-9) and the underscore "_" character.
- b. Enter a password in the **Password** field; re-enter the same password in the **Confirm Password** field.
- c. Assign the access level by selecting one or more groups from the **Groups** drop-down list. The list is as follows:
 - Administrators
 - Connects
 - Operators
 - Programmers
 - Users

NOTE: Make sure that the **Active Directory User** slider is disabled.

3. Click **OK** to save. Click **Cancel** to cancel the changes.

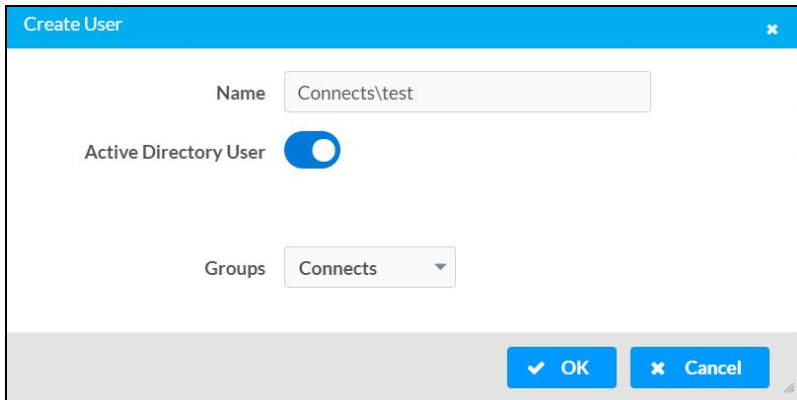
Add an Active Directory User

Users cannot be created or removed from the Active Directory server, but access can be granted to an existing user in the Active Directory server.

To grant access to an Active Directory user, you can either add the user to a local group, or add the Active Directory group(s) that they are a member of.

To add an Active Directory user:

1. Click the **Create User** button.
2. In the **Create User** dialog, enter the following.




- a. Enter a user name in the **Name** field in the format "Domain\UserName", for example "crestronlabs.com\JohnSmith". Valid user names can contain the alphanumeric characters (letters a-z, A-Z, numbers 0-9) and the underscore character.
- b. Select one or more groups from the **Groups** drop-down list. The following groups are listed:
 - Administrators
 - Connects
 - Operators
 - Programmers
 - Users

NOTE: Make sure that the **Active Directory User** slider is set to enabled.

3. Click **OK** to save. Click **Cancel** to cancel the changes.

Delete a User

Click the trashcan button () in the **Actions** column to delete the user. Click **Yes** when prompted to delete the user or **No** to cancel the deletion.

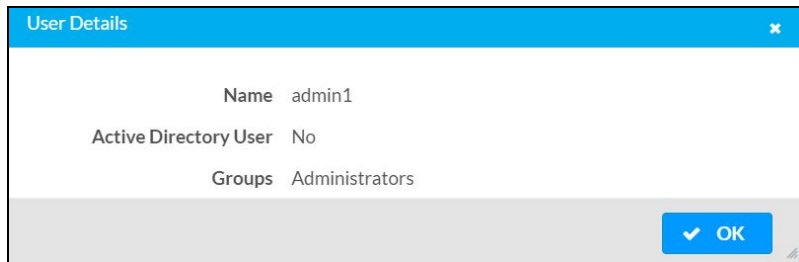
After a user is removed from a group, they lose any access rights associated with that group. Note that the user account is not deleted by the delete user operation.

View User Details

Click the information button () in the **Actions** column to view information for the selected user. The **User Details** dialog displays the following information for the selected user.

- **Name:** Displays the name of the selected user.
- **Active Directory User:** Displays whether the user is an Active Directory user.

- **Group:** Displays group(s) the selected user is part of.



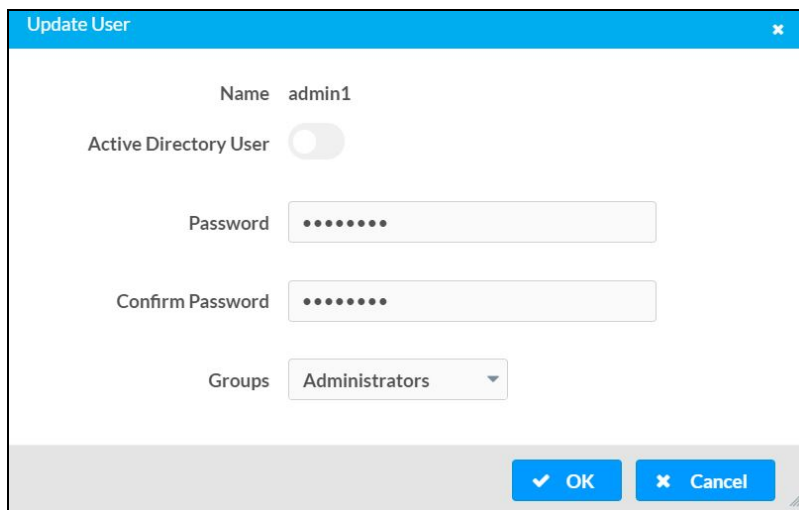
The **User Details** dialog box displays the following information:

- Name: admin1
- Active Directory User: No
- Groups: Administrators

An **OK** button is located at the bottom right of the dialog.

Click **OK** to close the **User Details** dialog and to return to the **Users** tab.


Update User Details



The **Update User** dialog box displays the following information:

- Name: admin1
- Active Directory User:
- Password:
- Confirm Password:
- Groups: Administrators (dropdown menu)

OK and **Cancel** buttons are located at the bottom of the dialog.

1. Click the edit button () in the **Actions** column to update information for the selected user.
2. Enter a password in the **Password** field; re-enter the same password in the **Confirm Password** field.
3. Select one or more groups to assign the user to from the **Groups** drop-down list.
4. Click **OK** to save or click **Cancel** to cancel the changes.

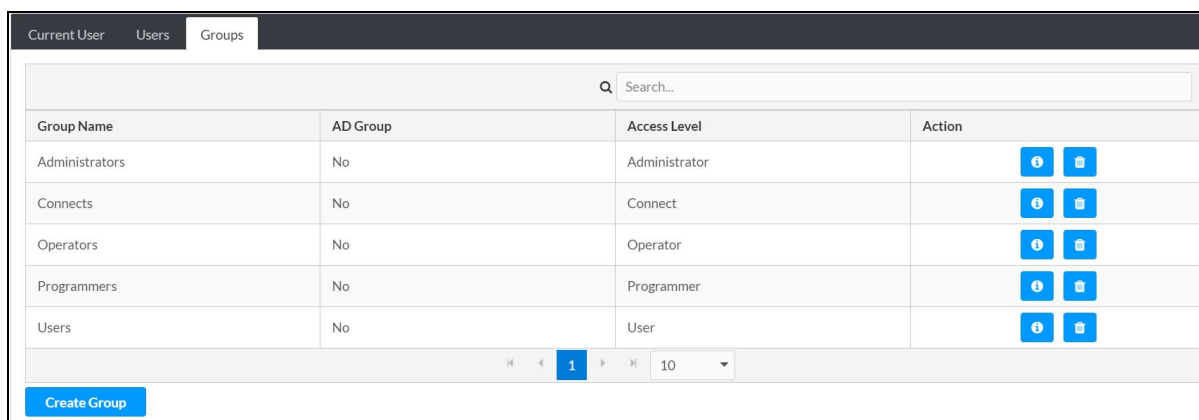
The **Update User** dialog also displays the following read-only information for the selected user.











- **Name:** Displays the name of the user.
- **Active Directory User:** Displays whether the user is an Active Directory user.

Groups

Click the **Groups** tab to view and edit group settings. The **Groups** tab can be used to add local and Active Directory groups, remove local and Active Directory groups, and preview information about a group.

Use the **Search Groups** field to enter search term(s) and display groups that match the search criteria.



Group Name	AD Group	Access Level	Action
Administrators	No	Administrator	 
Connects	No	Connect	 
Operators	No	Operator	 
Programmers	No	Programmer	 
Users	No	User	 

If groups listed in the **Groups** table span across multiple pages, navigate through the groups by clicking a page number or by using the left or right arrows at the bottom of the Groups pane to move forward or backward through the pages.

Additionally, each page can be set to display 5, 10, or 20 groups by using the drop-down menu to the right of the navigation arrows.

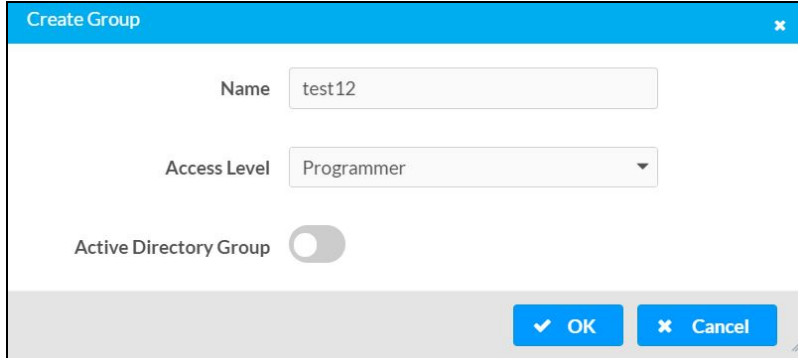
Existing groups are displayed in a table and the following information is provided for each group:

- **Group Name:** Displays the name of the group.
- **AD Group:** Displays whether the group requires authentication using Active Directory.
- **Access Level:** Displays the predefined access level assigned to the group (Administrator, Programmer, Operator, User, or Connect).

Click the corresponding button in the **Actions** column to view detailed group information () or to delete () the selected group.

Click on the **Create Group** button in the **Groups** tab to create a new group.

Create a Local Group



The screenshot shows a 'Create Group' dialog box with the following fields and controls:

- Name:** A text input field containing 'test12'.
- Access Level:** A dropdown menu currently showing 'Programmer'.
- Active Directory Group:** A toggle switch that is currently turned off (grey).
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

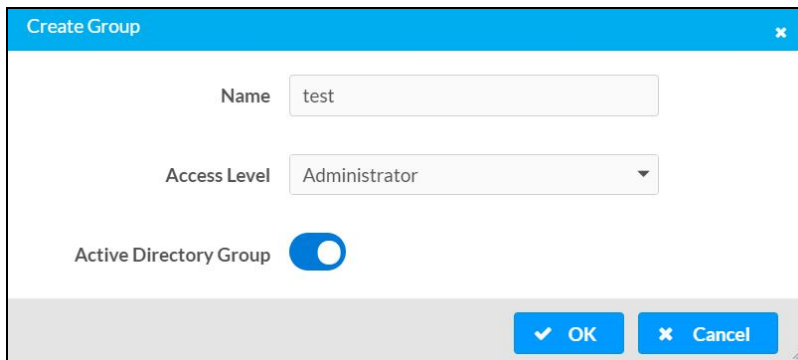
1. Click the **Create Group** button.
2. In the **Create Group** dialog, enter the following:
 - a. Enter the group name in the **Name** field.
 - b. Assign the group access level by selecting a predefined access level (Administrator, Connect, Operator, Programmer, User) from the **Access Level** drop-down list.

NOTE: Make sure that the **Active Directory Group** slider is disabled.

3. Click **OK** to save. Click **Cancel** to cancel the changes.

Add an Active Directory Group

A group cannot be created or removed from the Active Directory server, but access can be granted to an existing group in Active Directory.



The screenshot shows a 'Create Group' dialog box with the following fields and controls:

- Name:** A text input field containing 'test'.
- Access Level:** A dropdown menu currently showing 'Administrator'.
- Active Directory Group:** A toggle switch that is currently turned on (blue).
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

Once the group is added, all members of that group will have access to the Presentation System.


1. Click the **Create Group** button.
2. In the **Create Group** dialog enter the following:
 - a. Enter the group name in the **Name** field, for example "Engineering Group". Note that group names are case sensitive; a space is a valid character that can be used in group names.

3. Assign the group access level by selecting a predefined access level (Administrator, Connect, Operator, Programmer, User) from the **Access Level** drop-down list.

NOTE: Make sure that the **Active Directory Group** slider is enabled.


4. Click **OK** to save. Click **Cancel** to cancel the changes.

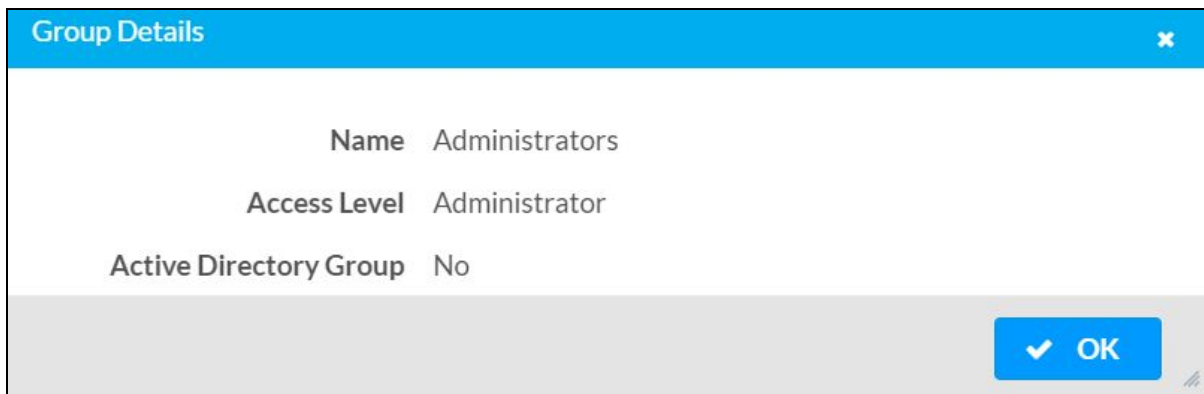
Delete a Group

Click the trashcan button () in the **Actions** column to delete a group. Click **Yes** when prompted to delete the group or **No** to cancel the deletion.

When a group is deleted, users in the group are not removed from the device or Active Directory server. However, because a user's access level is inherited from a group(s), users within the deleted group will lose access rights associated with the group.

View Group Details

Click the information button () in the **Actions** column to view information for the selected group. The **Group Details** dialog lists the following information for the selected group.

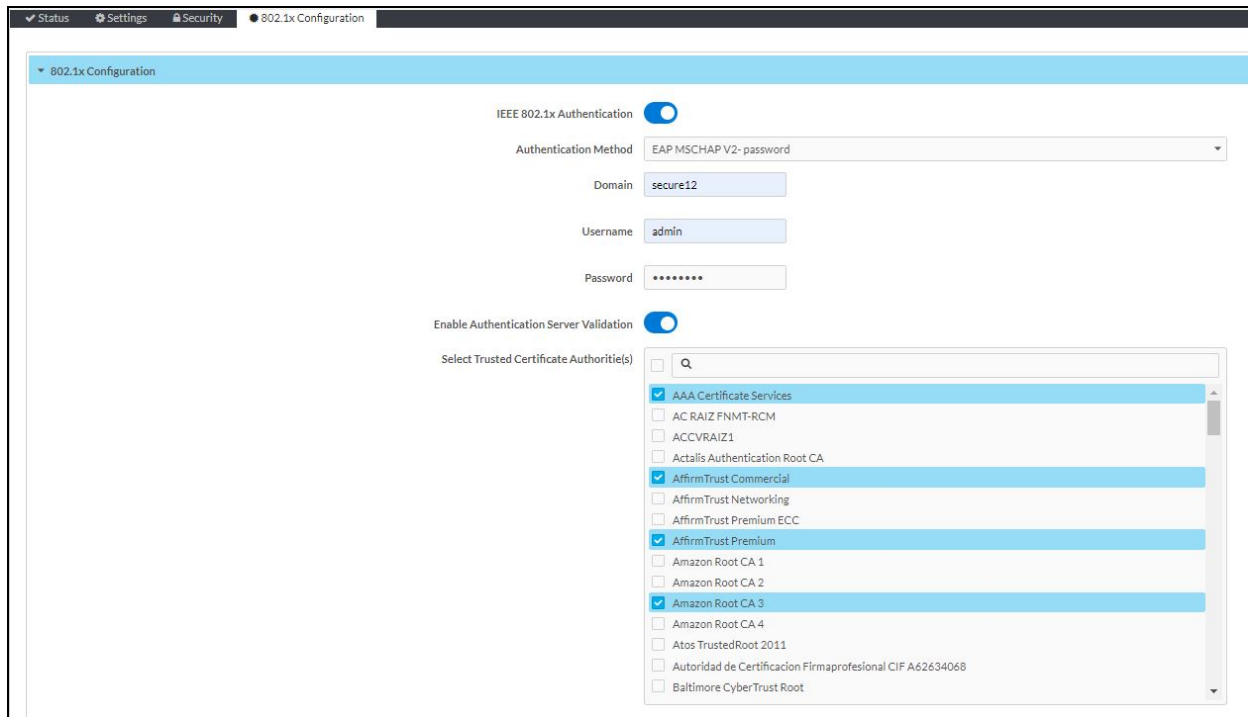


- **Name:** Displays the name of the group.
- **Access Level:** Displays the access level of the group and its users.
- **Active Directory Group:** Displays whether the group is an Active Directory group.

Click **OK** to close the **Group Details** dialog and to return to the Groups tab.

802.1x Configuration

The Presentation System have built-in support for the 802.1X standard (an IEEE network standard designed to enhance the security of wireless and Ethernet LANs. The standard relies on the exchange of messages between the device and the network's host, or authentication server), allowing communication with the authentication server and access to protected corporate networks.



To Configure Presentation System for 802.1X Authentication

1. Move the **IEEE 802.1X Authentication** slider to enabled. This will enable all options on the 802.1X dialog.
2. Select the **Authentication method: EAP-TLS Certificate** or **EAP-MSCHAP V2 Password** according to the network administrator's requirement.
3. Do either one of the following:
 - Select **EAP-TLS Certificate**. Click **Action/Manage Certificates** to upload the required machine certificate. The machine certificate is an encrypted file that will be supplied by the network administrator, along with the certificate password.
 - Select **EAP-MSCHAP V2 Password**. Enter the Username and Password supplied by the network administrator into the **Username** and **Password** fields. This method does not require the use of a machine certificate, only the user name and password credentials.
4. If you enabled the **Enable Authentication Server Validation** option, this will enable the **Select Trusted Certificate Authority(ies)** list box which contains signed Trusted Certificate Authorities (CAs) preloaded into the Presentation System.

Select the check box next to each CA whose certificate can be used for server validation, as specified by the network administrator.

NOTE: If the network does not use any of the listed certificates, the network administrator must provide a certificate, which must be uploaded manually via the **Manage Certificates** functionality.

5. If required, type the domain name of the network in the **Domain** field.
6. When the 802.1X settings are configured as desired, click **Save Changes** to save the changes to the device and reboot it. Click **Revert** to cancel any changes.

Recovery Procedure

To recover the HD-PS device:

1. Remove power for the device.
2. Press and hold the **Setup** button on the device.
3. Reapply power to the device while continuing to hold the **Setup** button.
4. Release the button when the Setup LED starts to flash (~10 seconds).

Once the recovery steps are complete, all user credentials are removed. A user must create a new account after the device boots up. For more information, see [Access the Web Interface with a Web Browser \(on page 2\)](#).

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