



OmniStream™ Single-Channel / Dual-Channel Networked AV Encoder / Decoder

Solutions Setup and Configuration Guide

AT-OMNI-232 AT-OMNI-311 AT-OMNI-111 AT-OMNI-121
AT-OMNI-324 AT-OMNI-112 AT-OMNI-122

Atlona Manuals
Networked AV

Version Information

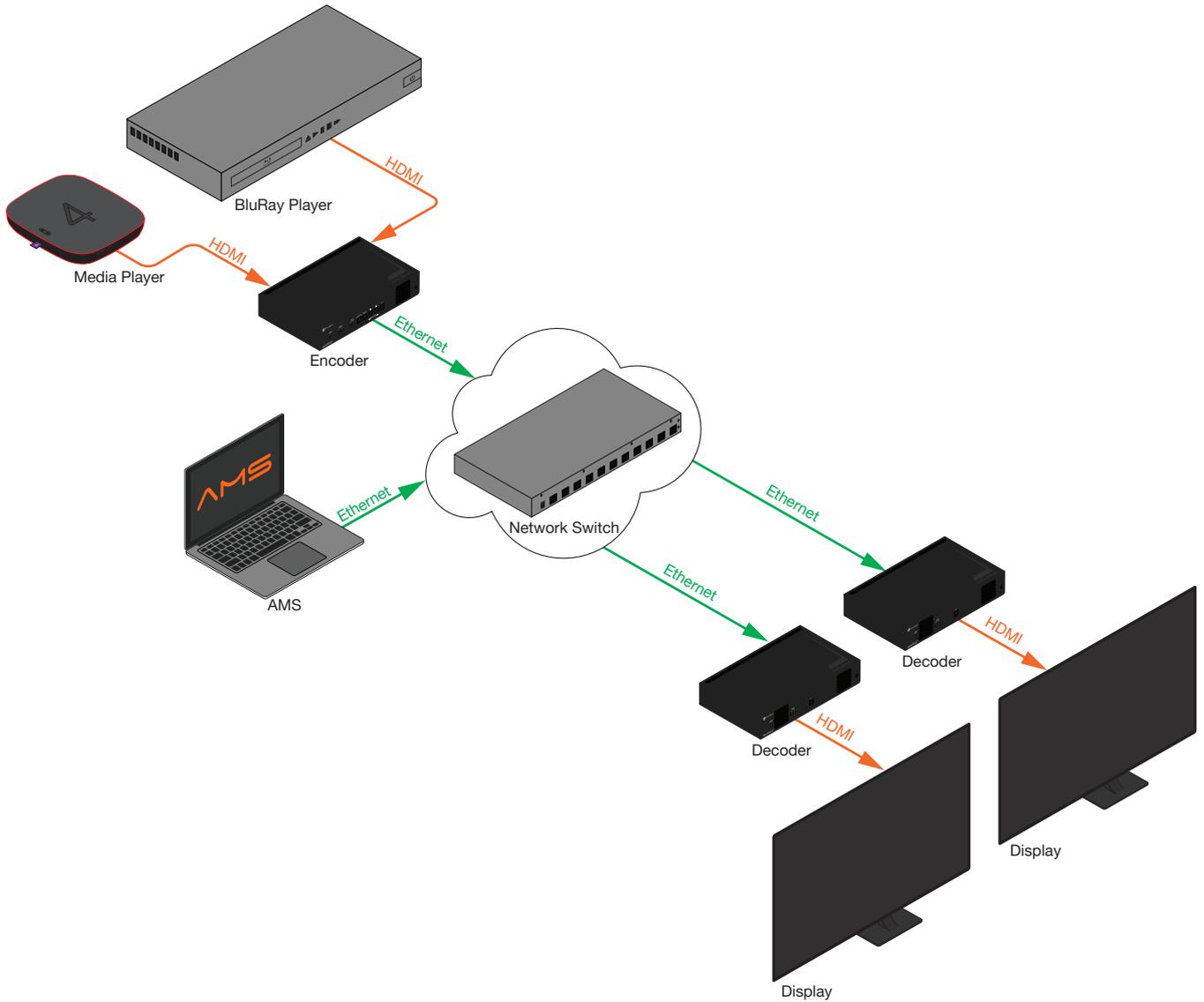
Version	Release Date	Notes
1	02/19	Initial release
2	03/19	Audio added
3	03/19	USB added
4	05/19	Added Network Switch Configuration, IR Control

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Introduction

This guide provides a base for setting up and configuring a small OmniStream™-based solution. The setup instructions will provide information for building a system capable of sending and receiving audio and video through OmniStream™ encoders and decoders, as well as a simple way to set up video walls and audio routing.



Getting Started

Selecting a Network Switch

A network switch will be needed to power and pass IP traffic. A list of certified switches is provided below with download links for prebuilt configurations. Atlona recommends using a switch from the certified list to ensure compatibility.

Certified Switcher	Download	Configuration
Cisco SG300-10MPP	Box Download Link	The default configuration can be found within the OmniStream Certified Network Switches document that can be found at https://atlona.com/pdf/OmniStream_Certified_Switches.pdf .
Cisco SG300-28MP	Box Download Link	
Cisco SG300-52MP	Box Download Link	
Cisco SG350-10MP	Box Download Link	
Cisco SG350-28MP	Box Download Link	
Cisco SG350-52MP	Box Download Link	
Cisco SG550X-24MP	Box Download Link	
Cisco SG550X-48MP	Box Download Link	
Pagedge S3L-24P	Box Download Link	
Luminex GigaCore 26i	Box Download Link	
Ruckus ICX 7150-48ZP	Box Download Link	
Ubiquiti ES-48-500W /ES-48-750W	Box Download Link	

AMS - Purchase or Download

For configuration of the OmniStream devices, AMS (Atlona Management System) will be needed. AMS has two options: AT-AMS-HW hardware or AT-AMS-SW free software. AT-AMS-HW can be purchased at: <https://atlona.com/product/at-ams-hw/> or AT-AMS-SW free software can be downloaded from <https://atlona.com/product/at-ams-sw/>. AMS will be needed before progressing further into setup and configuration.

Recommendations

If using multiple of the same OmniStream devices, or for reference, labeling can be used. It's best to place the label on the front of the device for visibility. When labeling, notate the last 4 numbers of the MAC address, found on the bottom of the unit on the label, for easier IP discovery and notation later.

Use a component surge suppressor with line conditioning for best results.



IMPORTANT: Atlona's warranty does not cover damage due to electrical disturbances. A component surge suppressor with line conditioning is highly suggested, especially in areas with electrical storms.

Connections

Initial connections can be done without installing the devices in their final spots. Have at least one source and display available to ensure video is passing between OmniStream devices.

1. Connect all devices to the network switch using a CAT5e or higher cable. OmniStream devices will need to be plugged into the PoE ports.
2. Have at least one source and display ready to connect to any of the OmniStream devices.
3. *Optional* If using the AT-AMS-HW, connect it to the network switch.
4. Once all the devices are connected to the network switch, connect the switch power supply to the power strip.
5. *Optional* Once the switch is booted, connect the power supply to the AT-AMS-HW and power strip.
6. *Optional* If using the AT-OMNI-311, connect the USB B to USB A cable to the USB port of the PC, that will provide the 5V power.
7. *Optional* If using the AT-OMNI-324, connect the power supply from the unit to the power strip.

Network Switch Configuration

Getting Started

Before working with the OmniStream devices, the network switch must be set up. This guide will provide instructions for configuring a Cisco SG350X-24MP switch. The following steps will be similar for most Cisco switches. However, there may be small variations, depending on the switch model. Consult the switch User Manual for more information.



IMPORTANT: The Network Switch Configuration chapter is divided into five sections. Each section must be followed in the order listed below. Deviating from this order, or skipping steps within a section, may result in unpredictable switch operation.

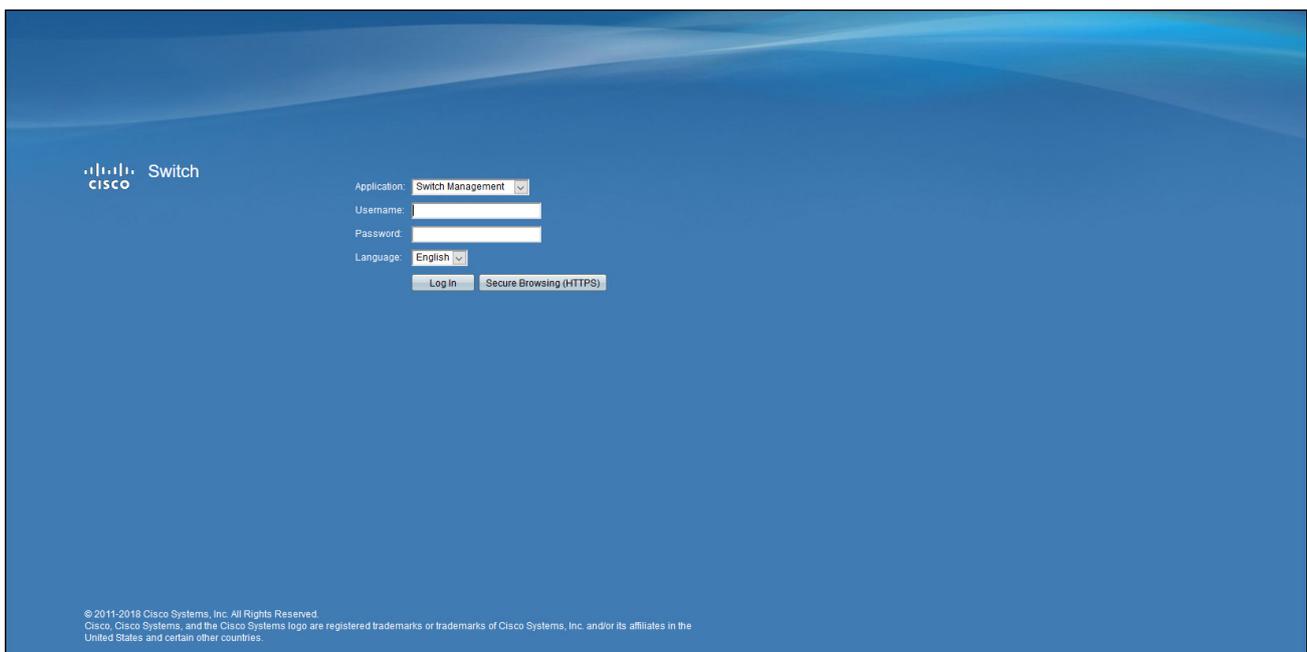
- Getting Started
- VLAN Setup
- IPv4 Interface Setup
- Setting IP Multicast
- Setting up User Accounts

1. Connect a PC or laptop to the network switch. It is best to you whichever port will remain on VLAN1 of the switch to avoid the PC losing connection when settings are changed on the switch.
2. Go into the computer settings and change the IP of the PC to be on the same range as the switch.



NOTE: If the IP address of the network switch is 192.168.1.254, then the computer should be set to 192.168.1.xx, where xx represents values from 1 to 253, as long as that IP address is not already assigned on that network. The default IP address for all Cisco switches is 192.168.1.254/24.

3. Launch the desired web browser and enter the IP address of the network switch into the address field, then press [ENTER].

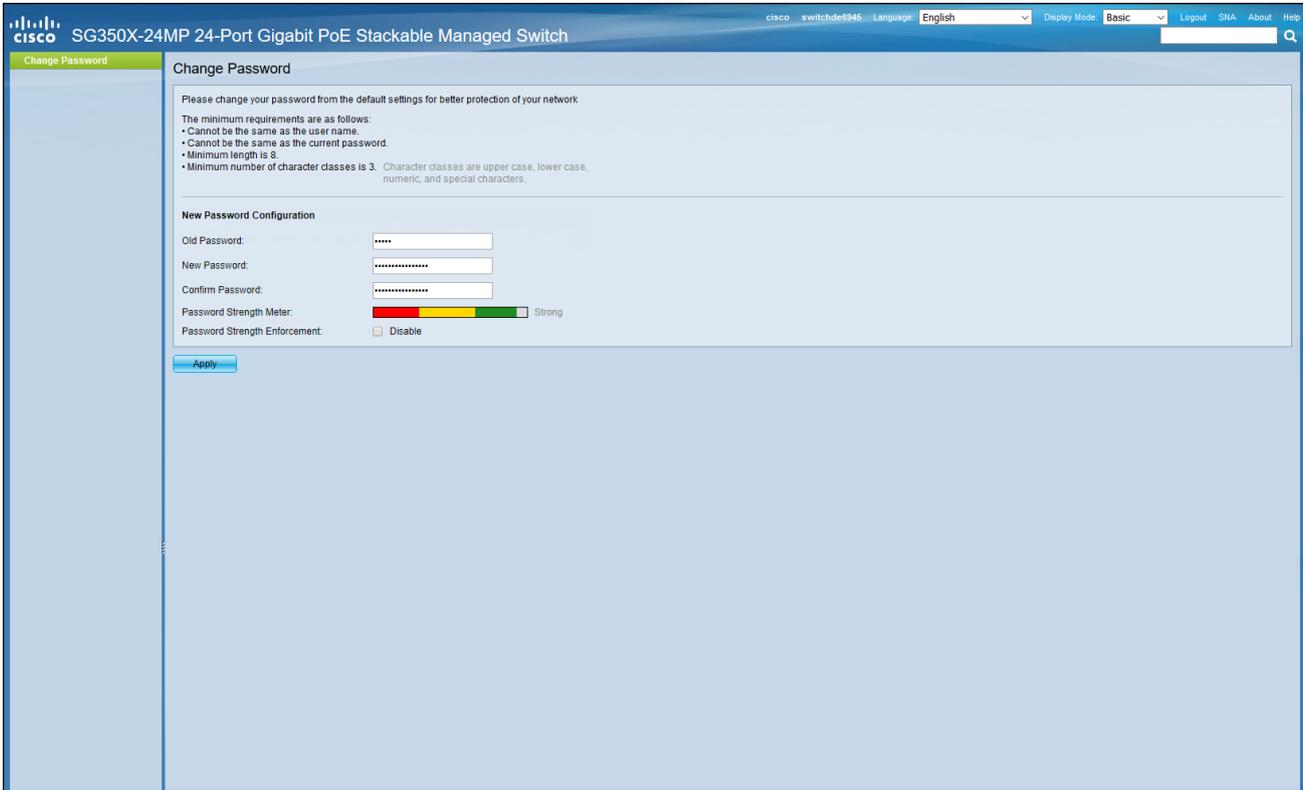


4. Enter the username and password. The default login credentials are as follows:

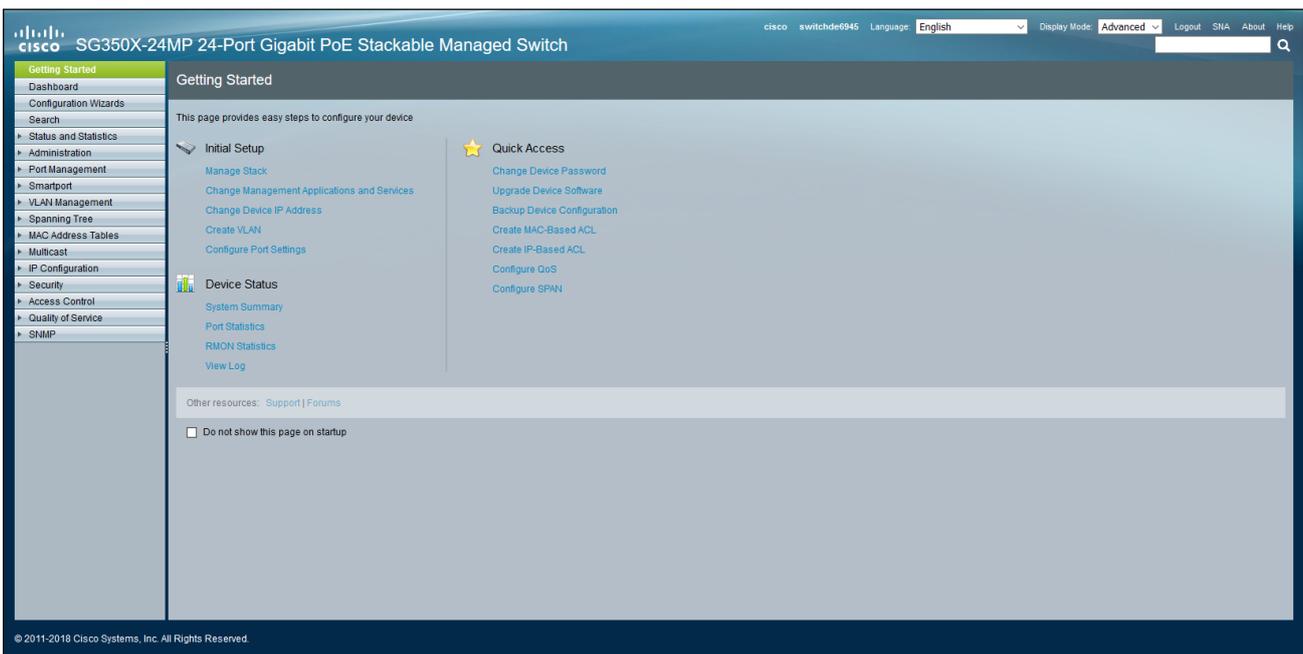
Username: cisco
Password: cisco

5. Click the **Login** button.

The switch will most likely require a new password to be assigned, before going further. This step may vary depending on the network switch. Enter the desired password, as required.

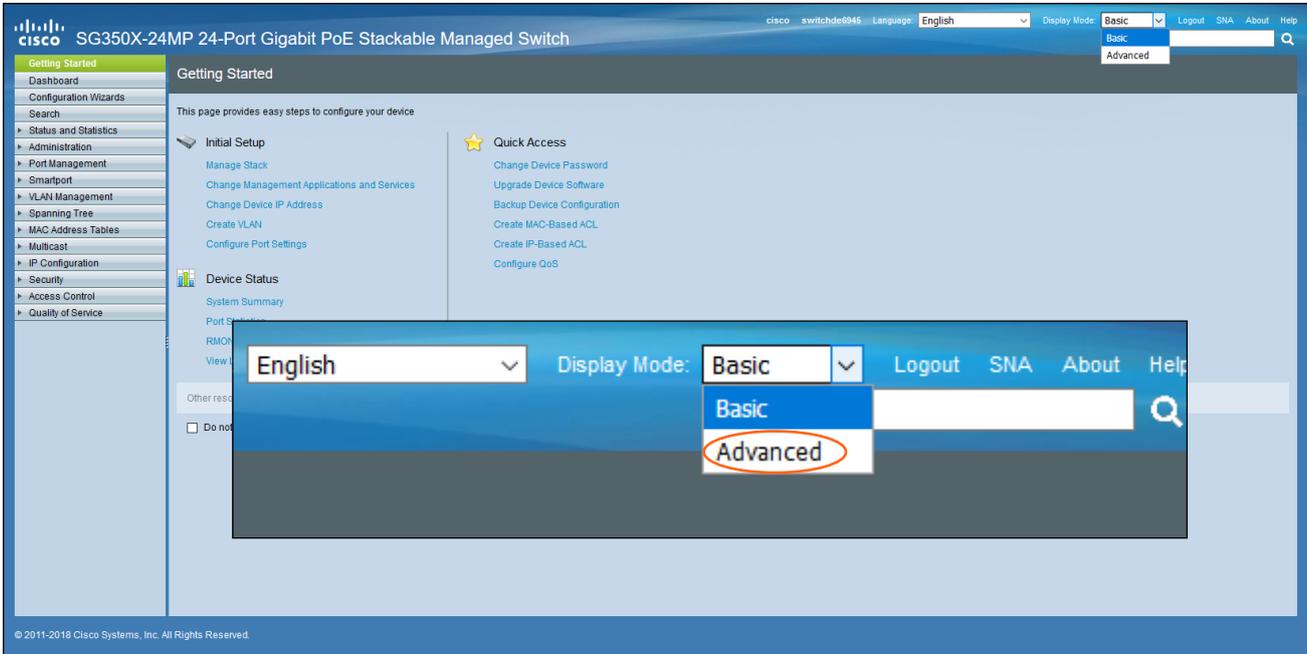


6. Click the **Apply** button to commit changes.
7. The **Getting Started** page will be displayed.



VLAN Setup

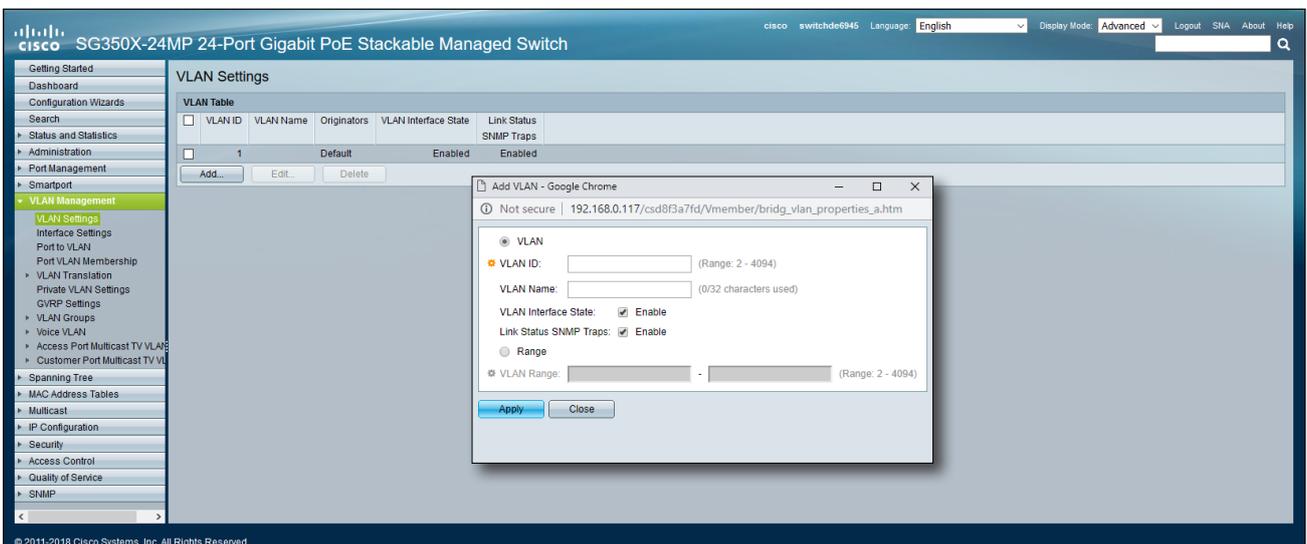
- Click the **Display Mode** drop-down list, near the upper-right hand corner of the screen, and select **Advanced**.



- Select **VLAN Management** from the menu on the left side of the screen. The **VLAN Management** menu will expand and the **VLAN Settings** page will be displayed. If the **VLAN Setting** page is not displayed, click **VLAN Management > VLAN Setting** to display the page.

By Default, VLAN 1 is active. If the network is self-contained, skip to 15. Otherwise, continue with the next step.

- Click the **Add...** button. The **Add VLAN** dialog will be displayed. The purpose of creating a VLAN is to separate a network into separate logical areas / broadcast domains. In this case, the VLAN is created to isolate AV-over-IP traffic from normal network traffic.



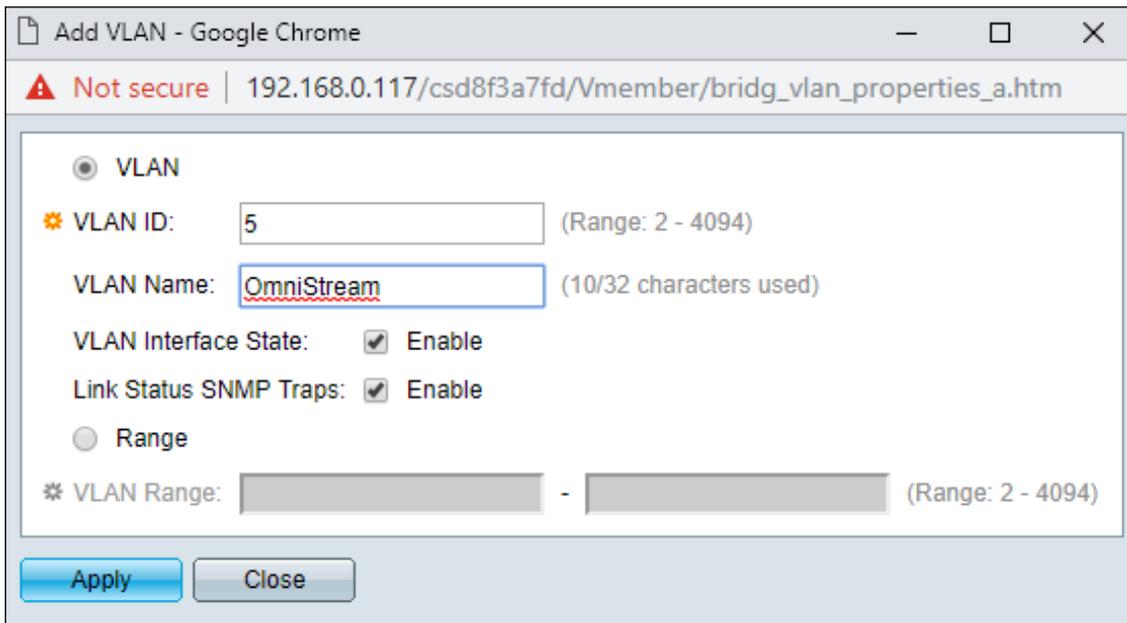
Network Switch Configuration

11. Enter the numerical ID of the VLAN in the **VLAN ID** field. This value is required and must be within the range of 2 to 4094.

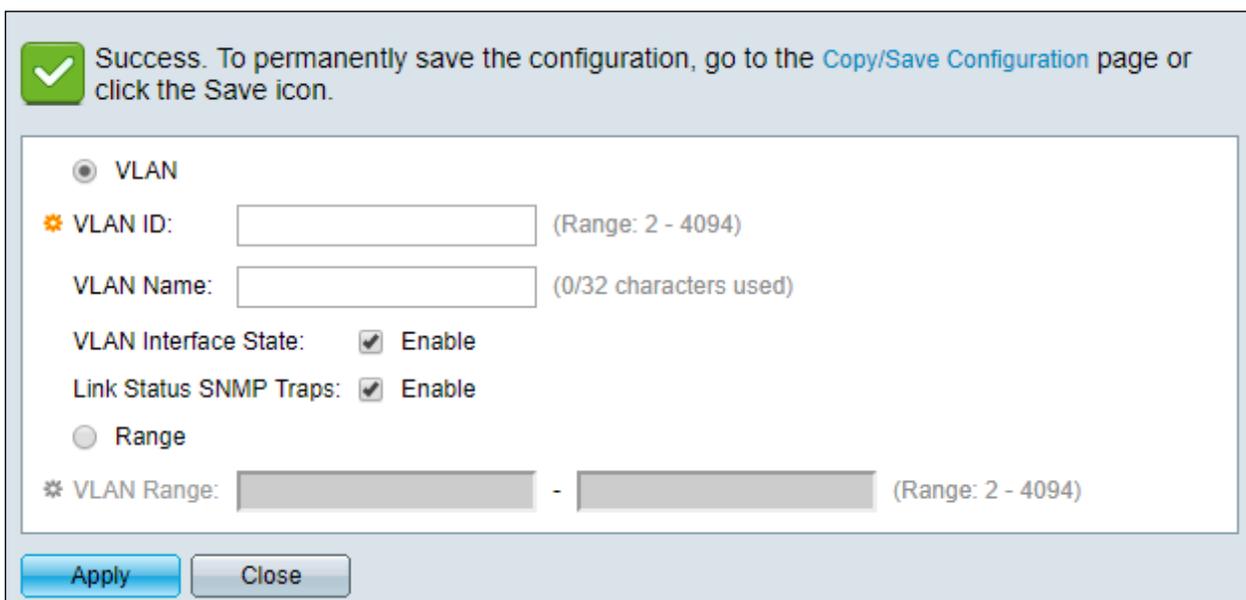


NOTE: VLAN 1 is the Cisco default VLAN. This VLAN can be used, but it cannot be modified or deleted.

12. OPTIONAL: Enter a name for the VLAN in the **VLAN Name** field. For example, the name of the VLAN could be used to identify a department, within a company, which uses that broadcast domain. In this example, “OmniStream” has been assigned as the name of VLAN 5.

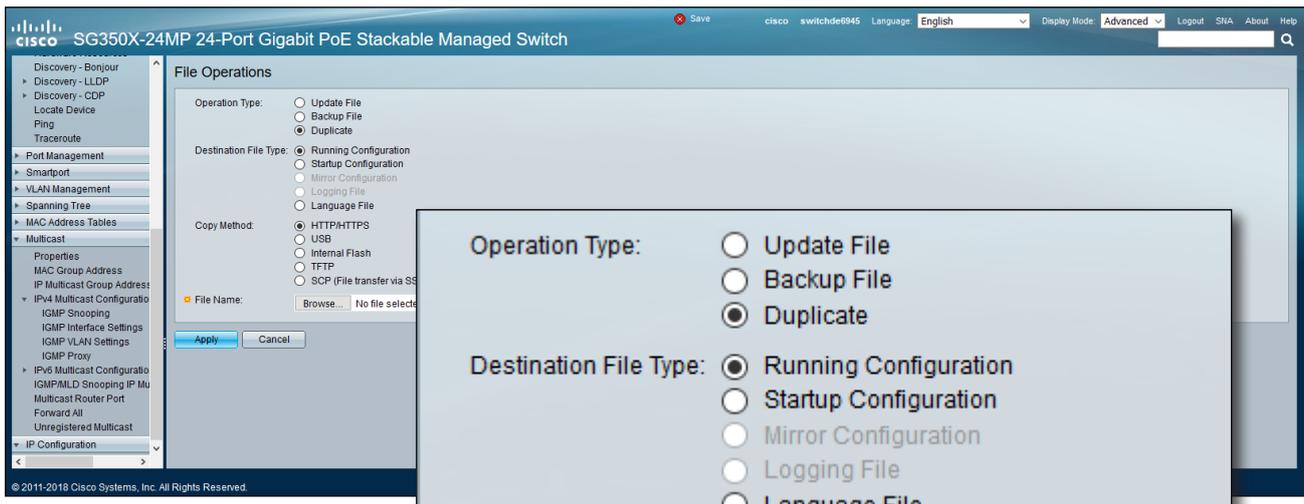


13. Click the **Apply** button to commit changes. If the VLAN was successfully created, the dialog box will display a “Success” message.

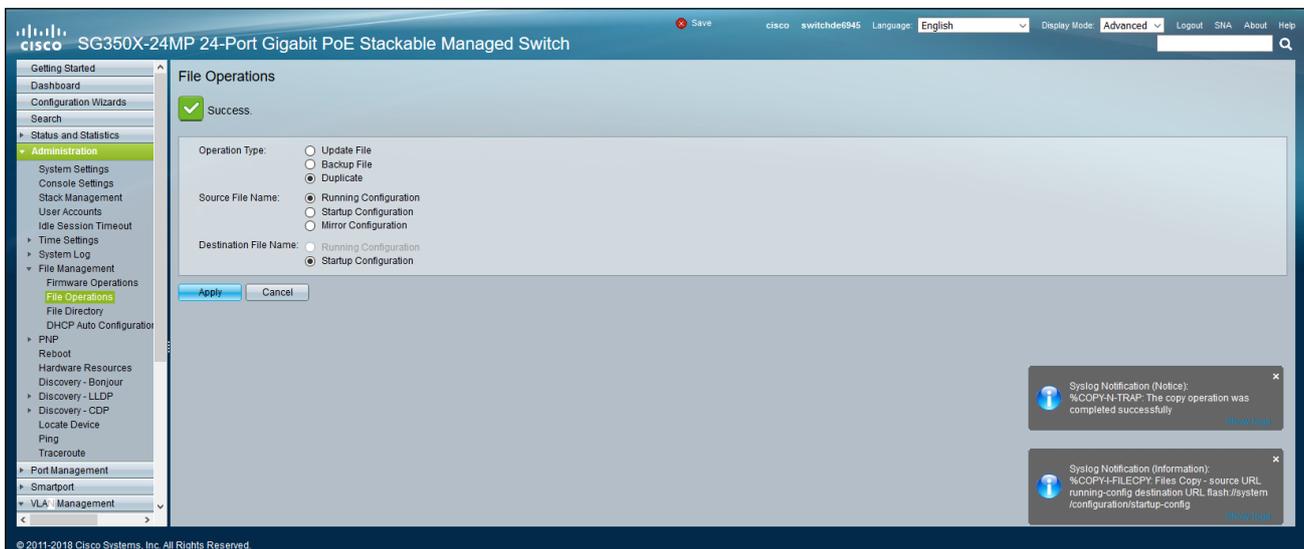


Network Switch Configuration

14. Repeat steps 11 through 13 to create as many VLANs as needed. If no additional VLANs are required, click the **Close** button to dismiss the **Add VLAN** dialog box.
15. Click **Administration**, in the left-hand menu bar and select **File Operations**. The **File Operations** page will be displayed.
16. Click the **Duplicate** radio button, next to **Operation Type**.

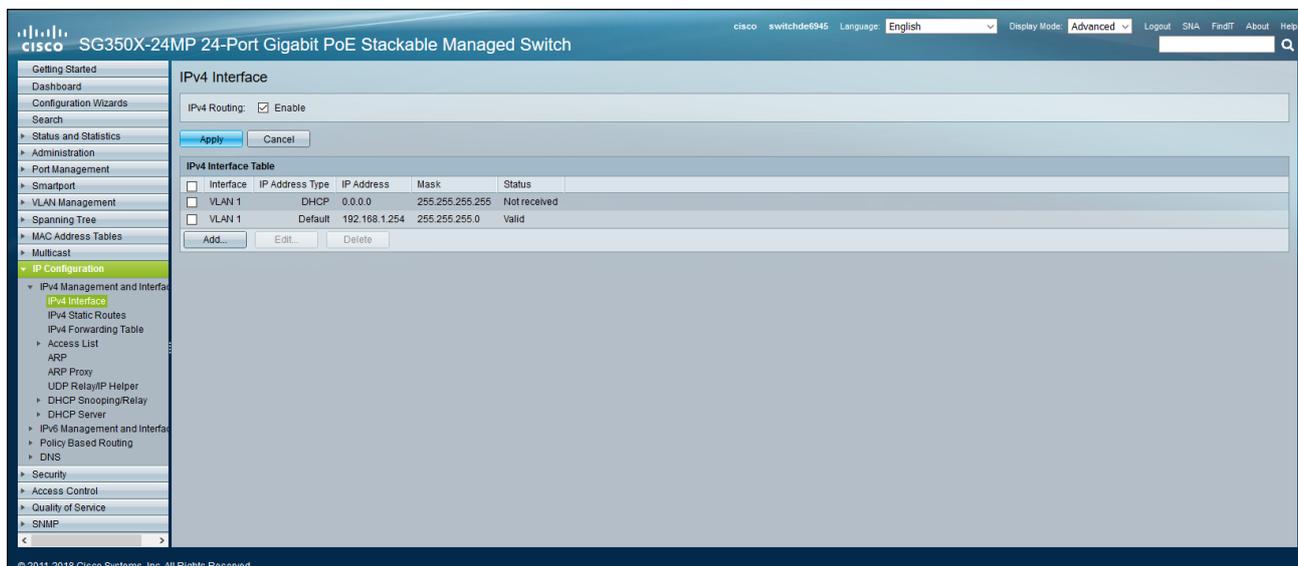


17. Click the **Apply** button to commit changes.

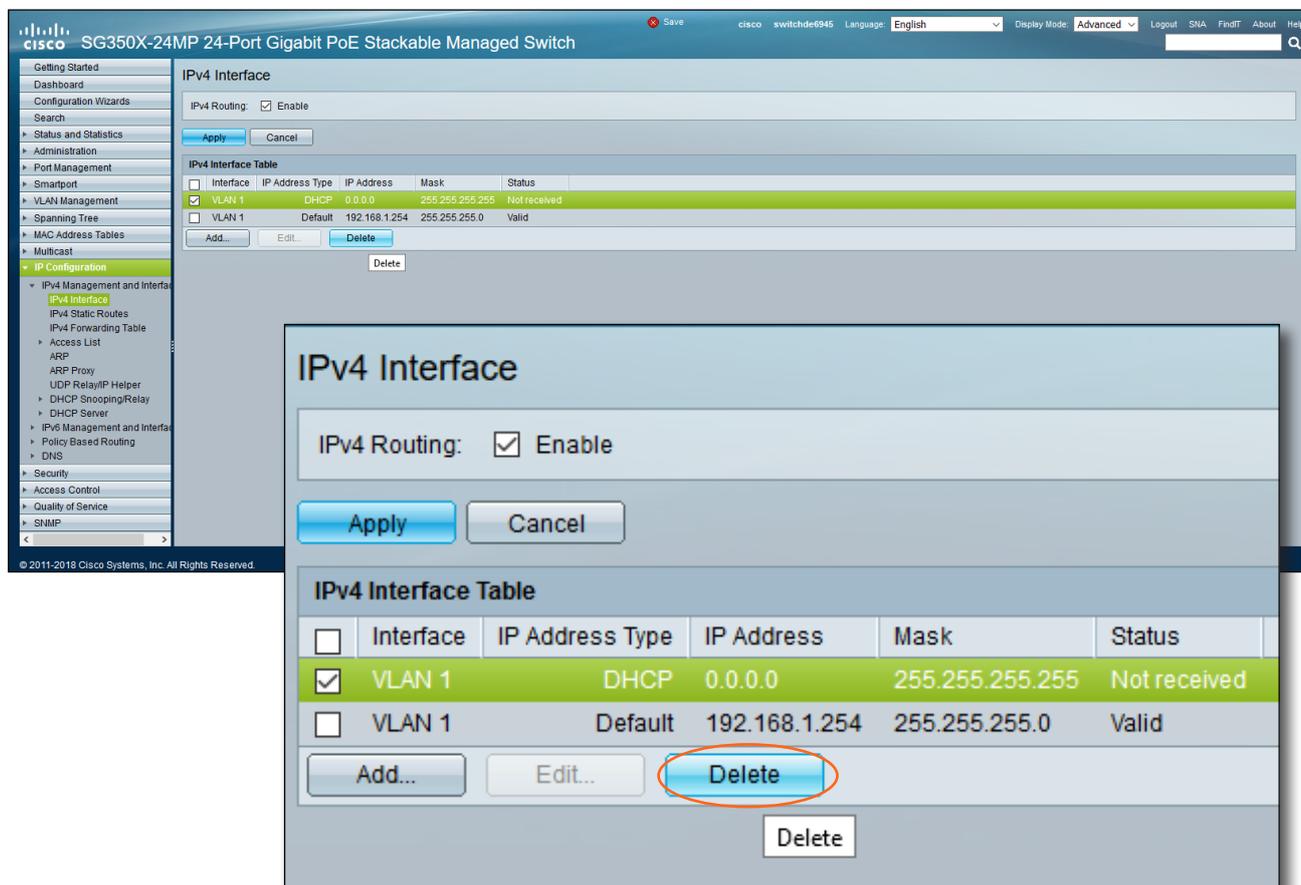


IPv4 Interface Setup

18. Click **IP Configuration** in the left-hand menu bar and select **IPv4 Interface**. The **IPv4 Interface** page will be displayed.

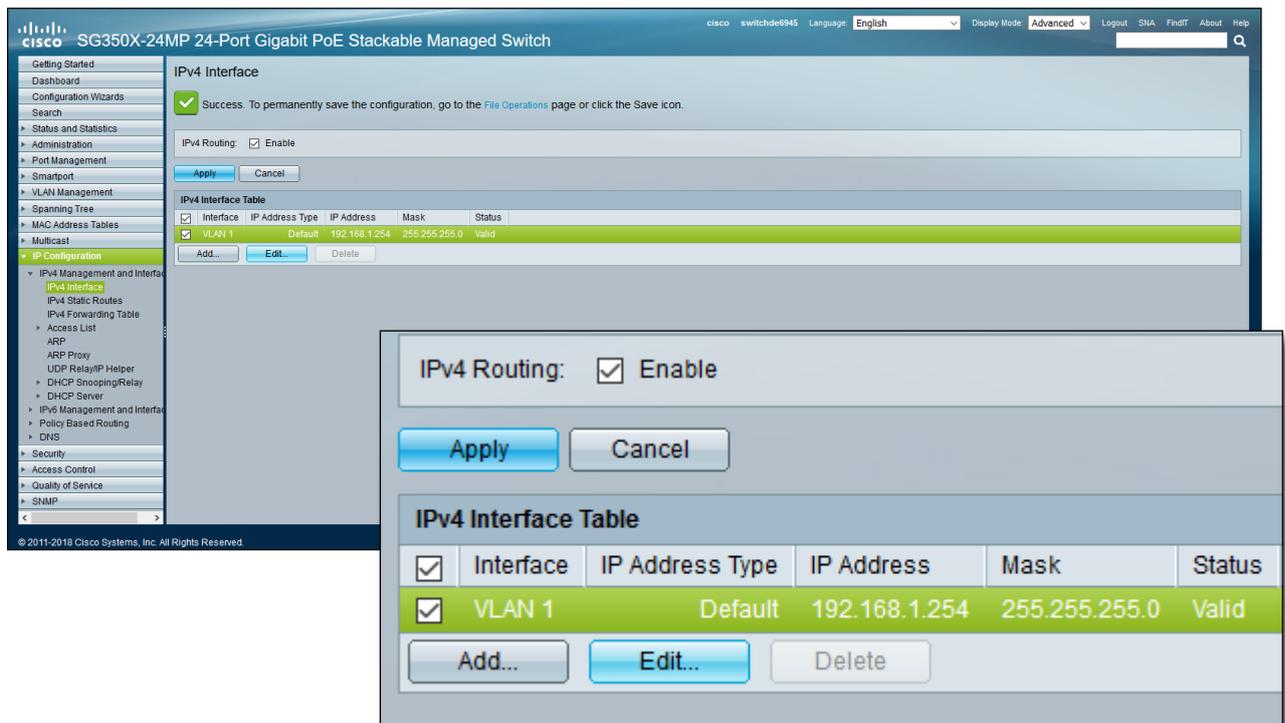


19. Click the check box next to **VLAN 1** (DHCP) and then click the **Delete** button.



20. Check the IP settings for VLAN 1. If no changes are required, continue with Step 4. However, if a different IP address or subnet mask need to be specified, then follow the steps below:

- a. Click the check box next to **VLAN 1**.
- b. Click the **Edit** button.



Success. To permanently save the configuration, go to the [File Operations](#) page or click the Save icon.

IPv4 Routing: Enable

Apply Cancel

<input checked="" type="checkbox"/>	Interface	IP Address Type	IP Address	Mask	Status
<input checked="" type="checkbox"/>	VLAN 1	Default	192.168.1.254	255.255.255.0	Valid

Add... Edit... Delete

IPv4 Routing: Enable

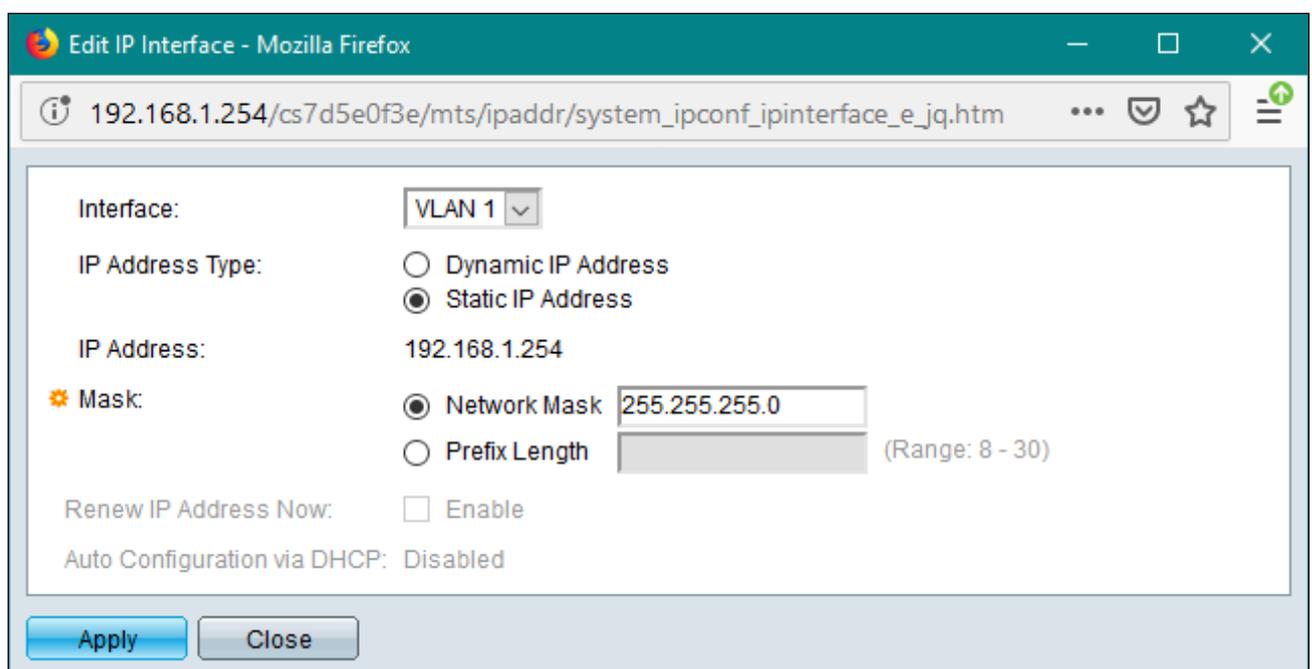
Apply Cancel

IPv4 Interface Table

<input checked="" type="checkbox"/>	Interface	IP Address Type	IP Address	Mask	Status
<input checked="" type="checkbox"/>	VLAN 1	Default	192.168.1.254	255.255.255.0	Valid

Add... Edit... Delete

- c. The **Edit IP Interface** dialog will be displayed.
- d. Make the required changes, then click the **Apply** button to commit changes.
- e. Click the **Close** button to dismiss the **Edit IP Interface** dialog box.



Edit IP Interface - Mozilla Firefox

192.168.1.254/cs7d5e0f3e/mts/ipaddr/system_ipconf_ipinterface_e_jq.htm

Interface: VLAN 1

IP Address Type: Dynamic IP Address Static IP Address

IP Address: 192.168.1.254

Mask: Network Mask 255.255.255.0 Prefix Length (Range: 8 - 30)

Renew IP Address Now: Enable

Auto Configuration via DHCP: Disabled

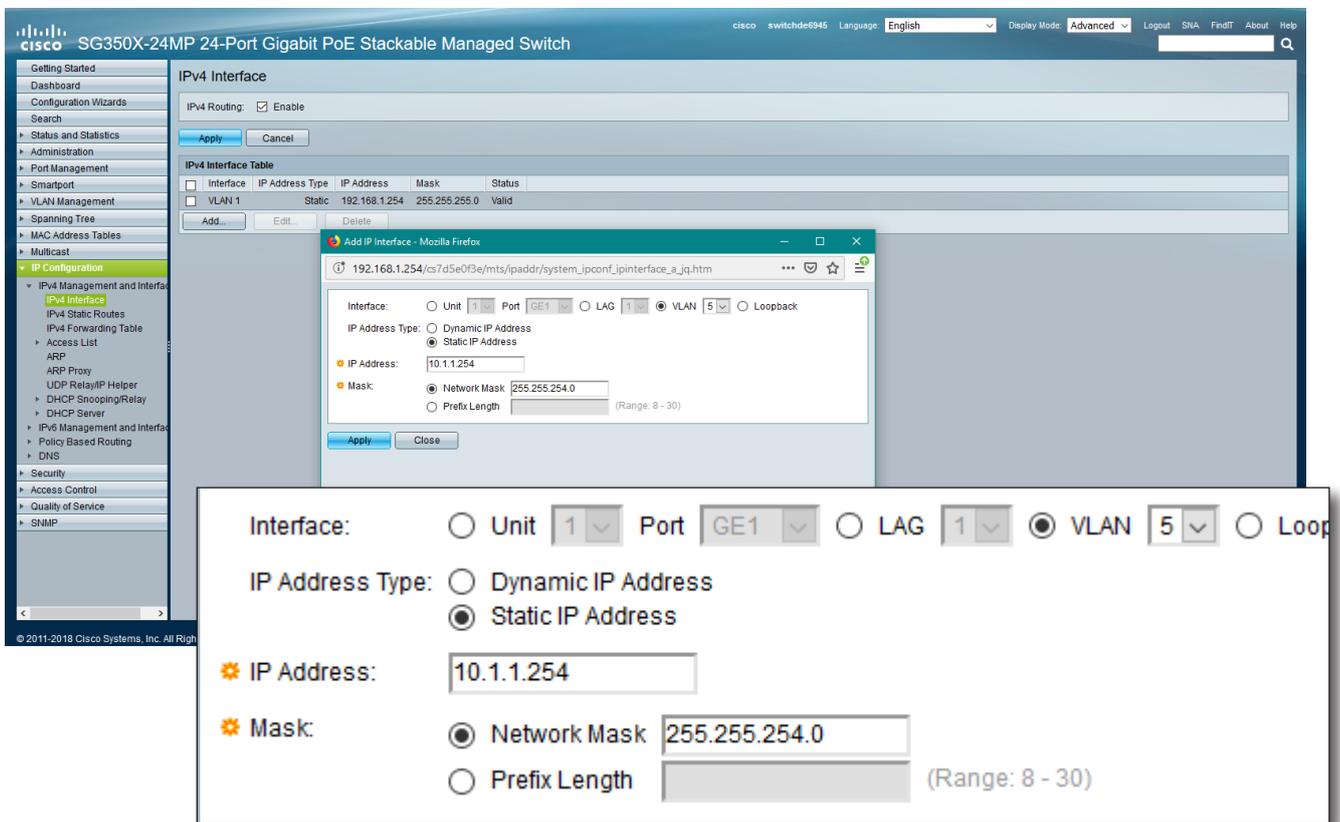
Apply Close

21. Click the **Add...** button. The **Add IP Interface** dialog box will be displayed.
22. Click the VLAN radio button, then click the drop-down list to select the VLAN that was created under **VLAN Setup** (page 9).
23. Click the **Static IP Address** radio button.



NOTE: It is recommended that a static IP address be assigned to a VLAN, to avoid IP changes.

24. Enter the IP address of the VLAN, in the **IP Address** field. In the example below, 10.1.1.254 is used. However, any available IP address in the pool may be used.
25. Click the **Network Mask** radio button and enter the subnet mask. In this example, 255.255.254.0 is used. However, depending upon the requirements, any valid network mask may be used.



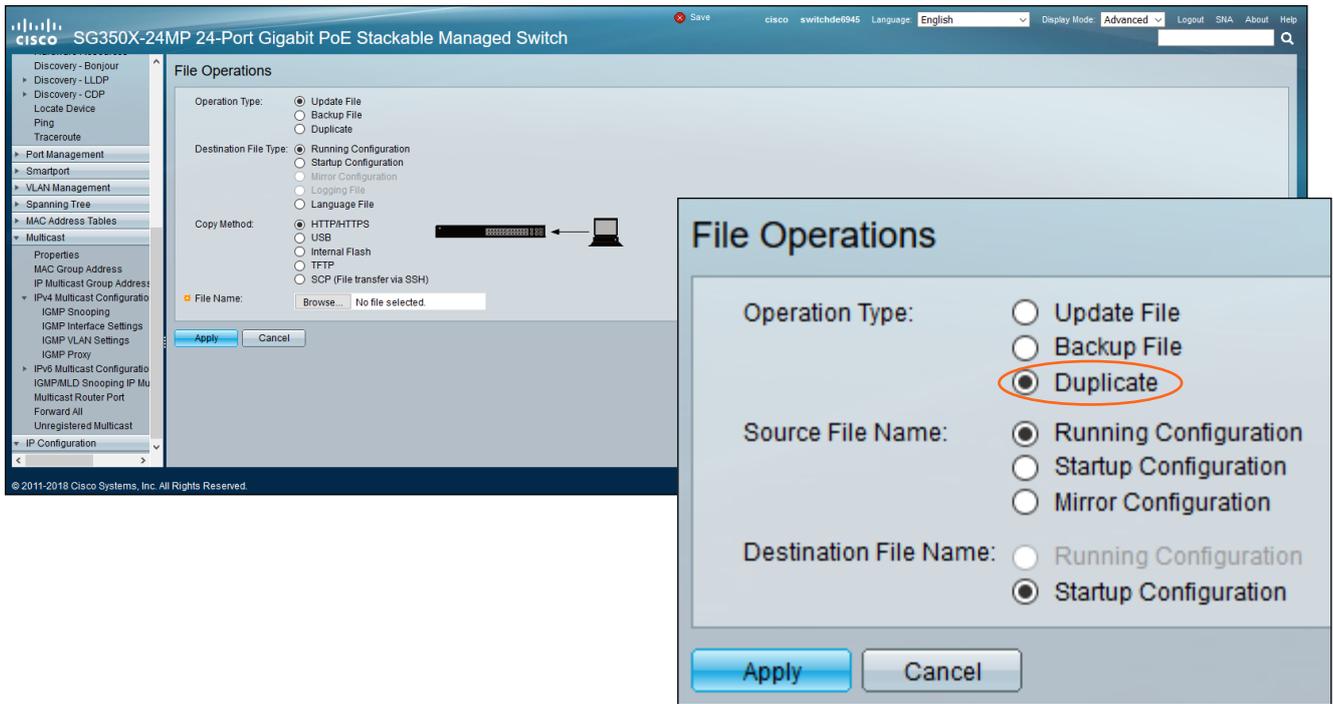
The screenshot displays the Cisco configuration interface for an SG350X-24MP switch. The 'IPv4 Interface' configuration page is active, showing a table with the following data:

Interface	IP Address Type	IP Address	Mask	Status
VLAN 1	Static	192.168.1.254	255.255.255.0	Valid

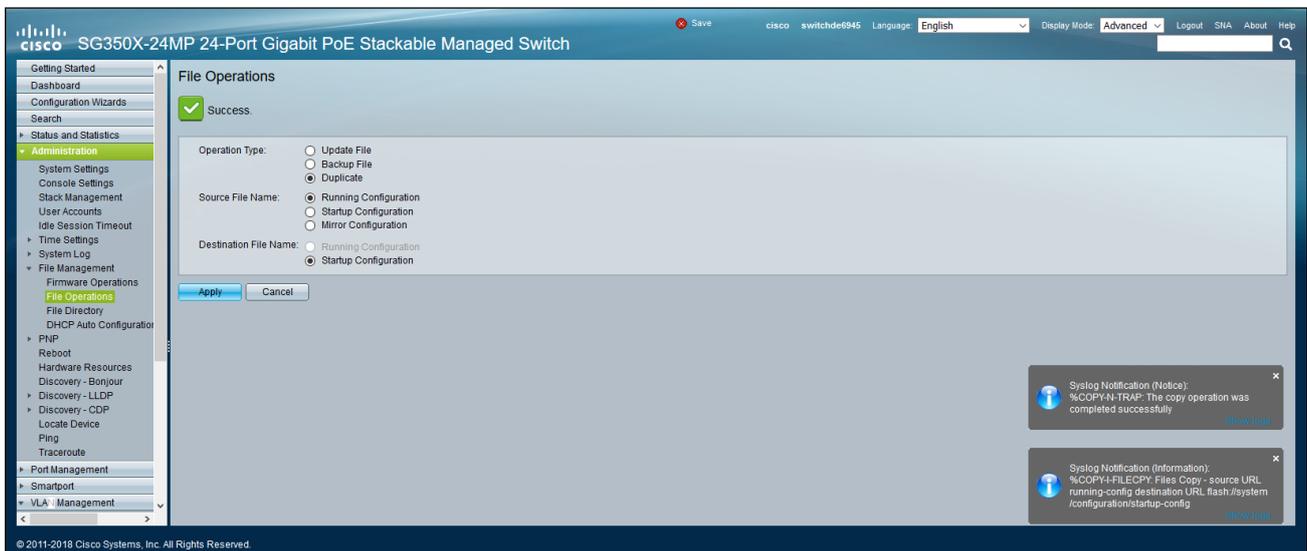
An 'Add IP Interface' dialog box is overlaid on the screen, showing the following configuration details:

- Interface: Unit 1 Port GE1 LAG 1 VLAN 5 Loopback
- IP Address Type: Dynamic IP Address Static IP Address
- IP Address: 10.1.1.254
- Mask: Network Mask 255.255.254.0 Prefix Length (Range: 8 - 30)

26. Click the **Apply** button to commit changes. Repeat Steps 4 through 9 for each additional VLAN, as necessary.
27. After all VLANs have been set up, click the **Close** button to dismiss the **Add IP Interface** dialog box.
28. Click **Administration > File Operations** in the menu bar on the left side of the screen. The **File Operations** page will be displayed.
29. Click the **Duplicate** radio button, next to **Operation Type**. Refer to the next page for more information.

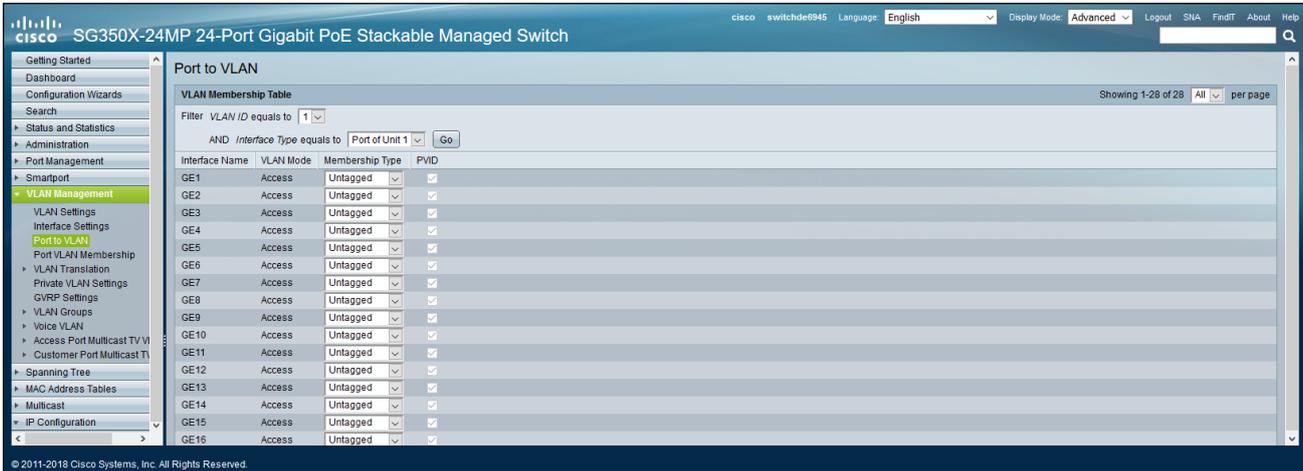


30. Click the **Apply** button to commit changes.



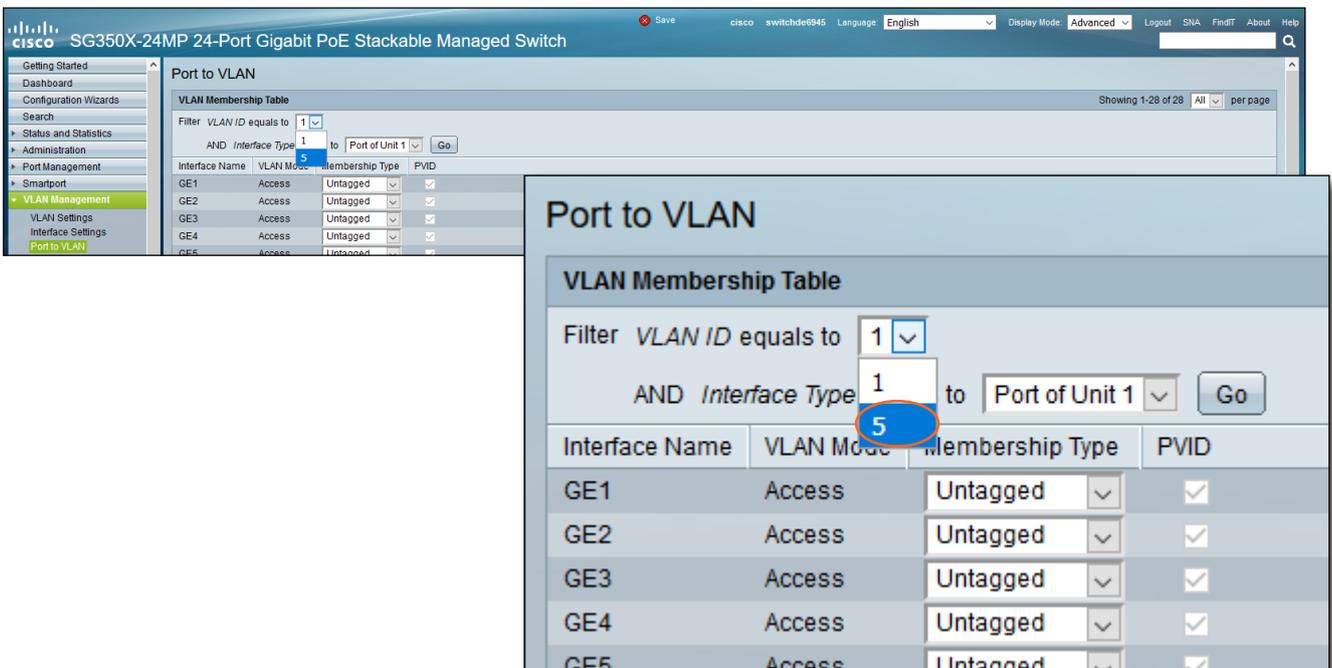
Configuring IP Multicast

- Click **Port to VLAN** from the **VLAN Management** menu. By default, the **Membership Type**, for each physical port (interface), is assigned as **Untagged**.

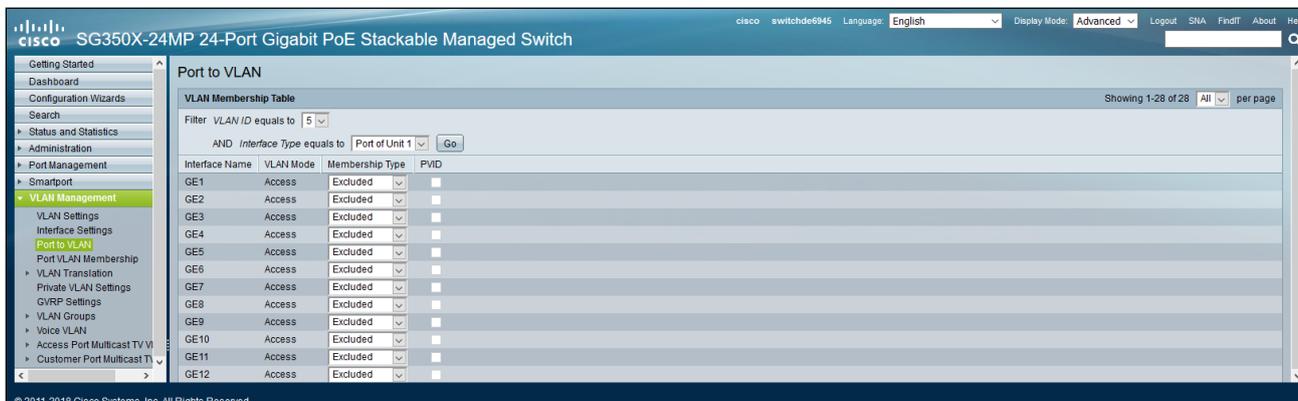


- Click the **VLAN ID equals to** drop-down list and select the VLAN ID that was created under **VLAN Setup** (page 9).

- Leave the **AND Interface Type equals to** drop-down list as **Port of Unit 1**. Click the **Go** button.

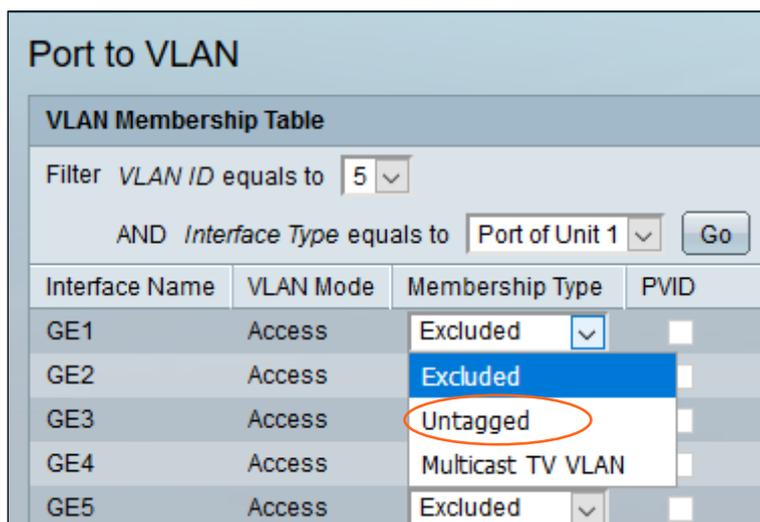


34. The **Membership Type**, for the VLAN, will automatically be assigned as **Excluded** for each physical port on the switch.



Interface Name	VLAN Mode	Membership Type	PVID
GE1	Access	Excluded	
GE2	Access	Excluded	
GE3	Access	Excluded	
GE4	Access	Excluded	
GE5	Access	Excluded	
GE6	Access	Excluded	
GE7	Access	Excluded	
GE8	Access	Excluded	
GE9	Access	Excluded	
GE10	Access	Excluded	
GE11	Access	Excluded	
GE12	Access	Excluded	

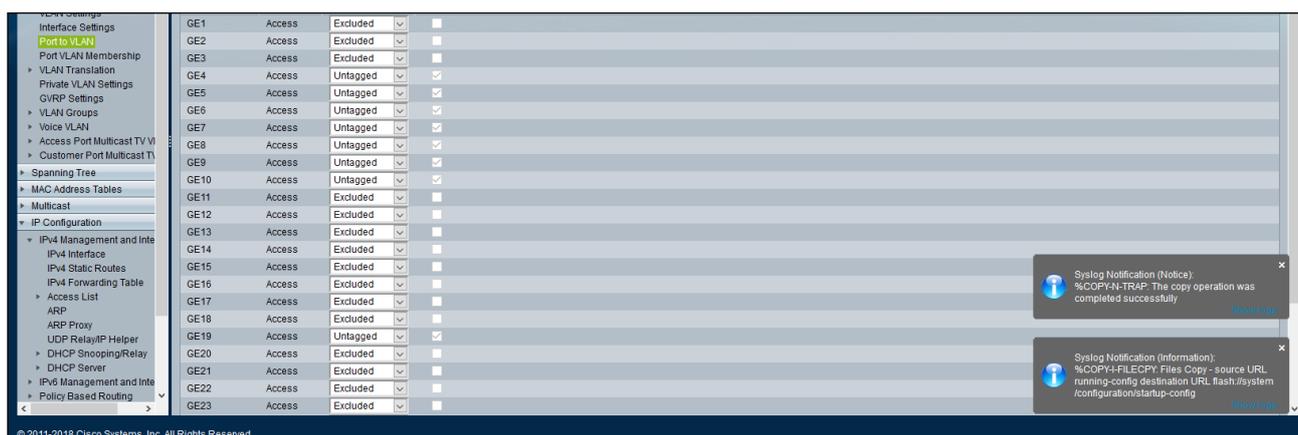
35. Determine which physical ports will use the selected VLAN. Click the **Membership Type** drop-down list for each physical port that will use the VLAN, and set its value to **Untagged**. For example, if physical ports 6 and 7 will be used for VLAN 5, then set the **Membership Type** for these two ports to **Untagged**.



Interface Name	VLAN Mode	Membership Type	PVID
GE1	Access	Excluded	
GE2	Access	Excluded	
GE3	Access	Untagged	
GE4	Access	Multicast TV VLAN	
GE5	Access	Excluded	

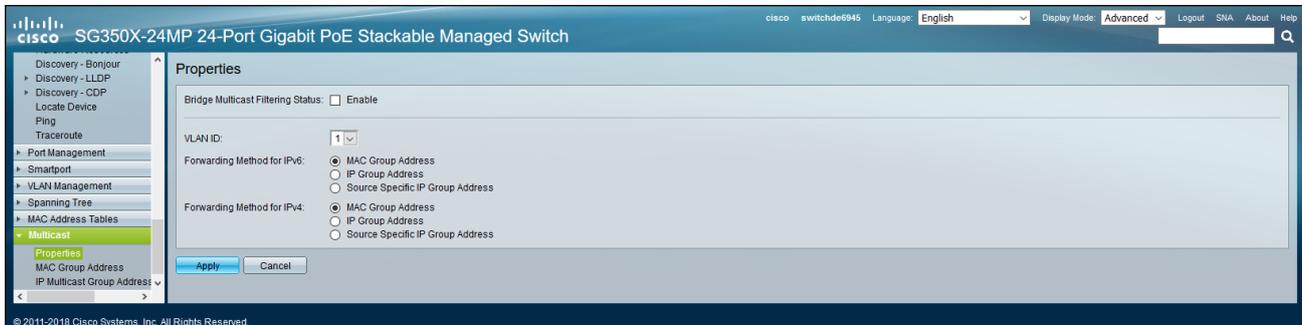
36. Scroll to the bottom of the list of ports and click the **Apply** button. Success messages will appear at the top and bottom right of the screen.

NOTE: If the port the PC is connect to is move off VLAN1, then it will need to be set to the IP settings of the new VLAN to continue.

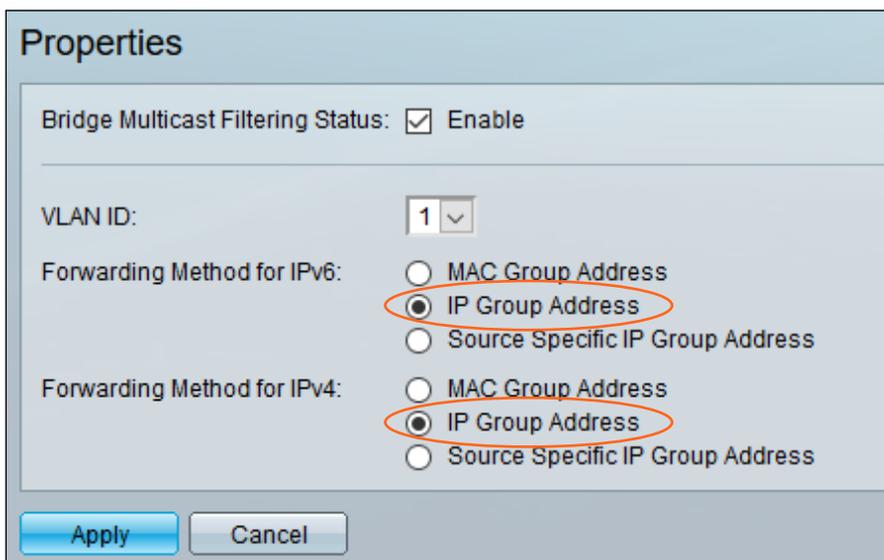


Interface Name	VLAN Mode	Membership Type	PVID
GE1	Access	Excluded	
GE2	Access	Excluded	
GE3	Access	Excluded	
GE4	Access	Untagged	
GE5	Access	Untagged	
GE6	Access	Untagged	
GE7	Access	Untagged	
GE8	Access	Untagged	
GE9	Access	Untagged	
GE10	Access	Untagged	
GE11	Access	Excluded	
GE12	Access	Excluded	
GE13	Access	Excluded	
GE14	Access	Excluded	
GE15	Access	Excluded	
GE16	Access	Excluded	
GE17	Access	Excluded	
GE18	Access	Excluded	
GE19	Access	Untagged	
GE20	Access	Excluded	
GE21	Access	Excluded	
GE22	Access	Excluded	
GE23	Access	Excluded	

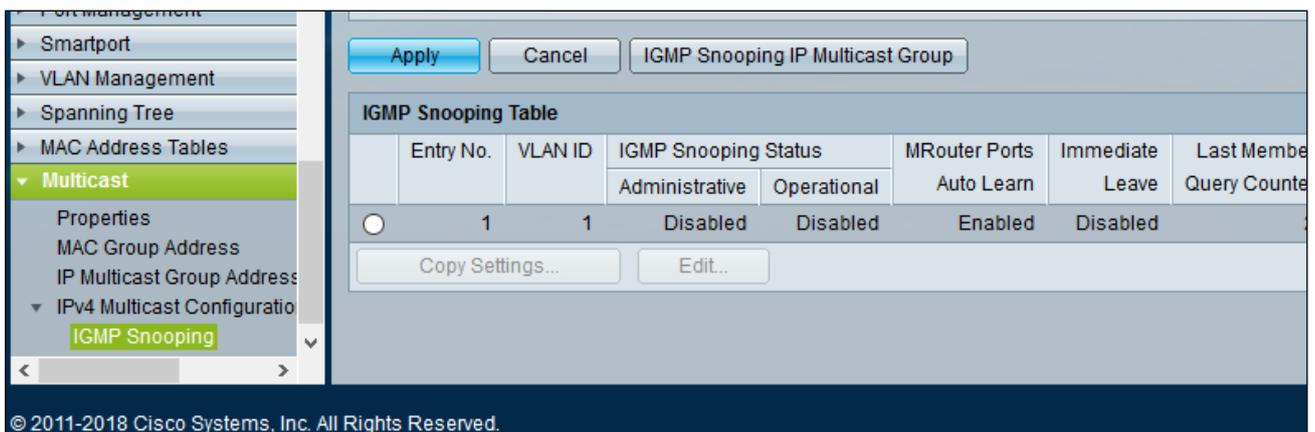
37. Click **Multicast** from the menu bar on the left side of the screen. The **Properties** window will automatically be displayed.



38. Click the **Enable** box, next to **Bridge Multicast Filtering Status**, to enable this feature.
39. Click the **IP Group Address** radio button, under both **Forwarding Method for IPv6** and **Forwarding Method for IPv4**.



40. Click the **Apply** button to commit changes.
41. Repeat steps 38 and 39 for each VLAN.
42. Click **IGMP Snooping**, under **IPv4 Multicast Configuration**, from the menu bar on the left side of the screen.



43. Click the check box next to **IGMP Snooping**, to enable this feature.
44. Click the **Apply** button to commit changes.

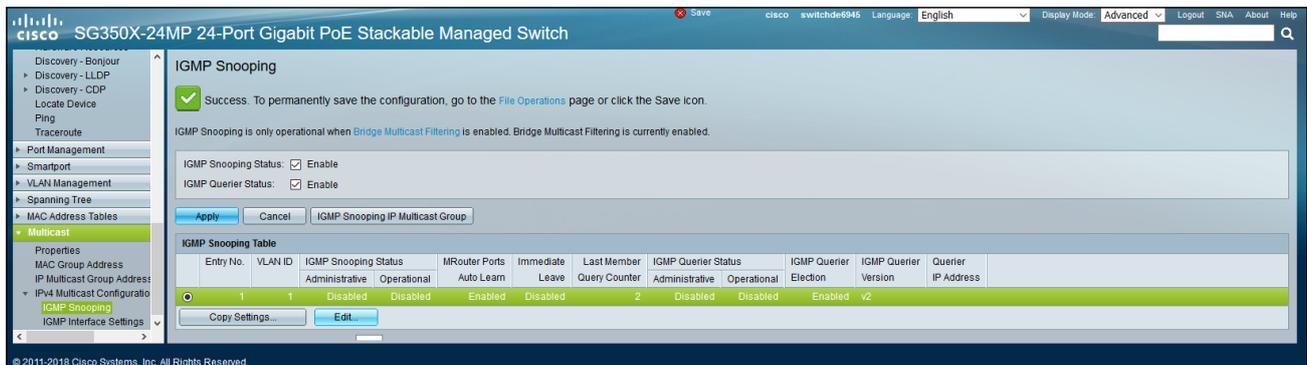
IGMP Snooping

IGMP Snooping is only operational when [Bridge Multicast Filtering](#) is enabled. Bridge Multicast Filtering is currently enabled.

IGMP Snooping Status: Enable

IGMP Querier Status: Enable

45. Click the radio button next to **VLAN 1**, as shown below, in the **IGMP Snooping Table**.



The screenshot shows the Cisco configuration page for a switch. The 'IGMP Snooping' section is expanded, showing a success message and the configuration options for IGMP Snooping Status (checked) and IGMP Querier Status (checked). Below this is the 'IGMP Snooping Table' with the following data:

Entry No.	VLAN ID	Administrative	Operational	MRouter Ports Auto Learn	Immediate Leave	Last Member Query Counter	IGMP Querier Status Administrative	Operational	IGMP Querier Election	IGMP Querier Version	Querier IP Address
1	1	Disabled	Disabled	Enabled	Disabled	2	Disabled	Disabled	Enabled	v2	

The 'Edit...' button is highlighted in the table.

46. Click the **Edit...** button to display the **Edit IGMP Snooping Settings** dialog box.

Edit IGMP Snooping Settings - Mozilla Firefox

192.168.1.254/csafa621c4/multicast/igmp_snooping_e_jq.htm

VLAN ID:

IGMP Snooping Status: Enable

MRouter Ports Auto Learn: Enable

Immediate Leave: Enable

Last Member Query Counter: Use Query Robustness (2)
 User Defined (Range: 1 - 7)

IGMP Querier Status: Enable

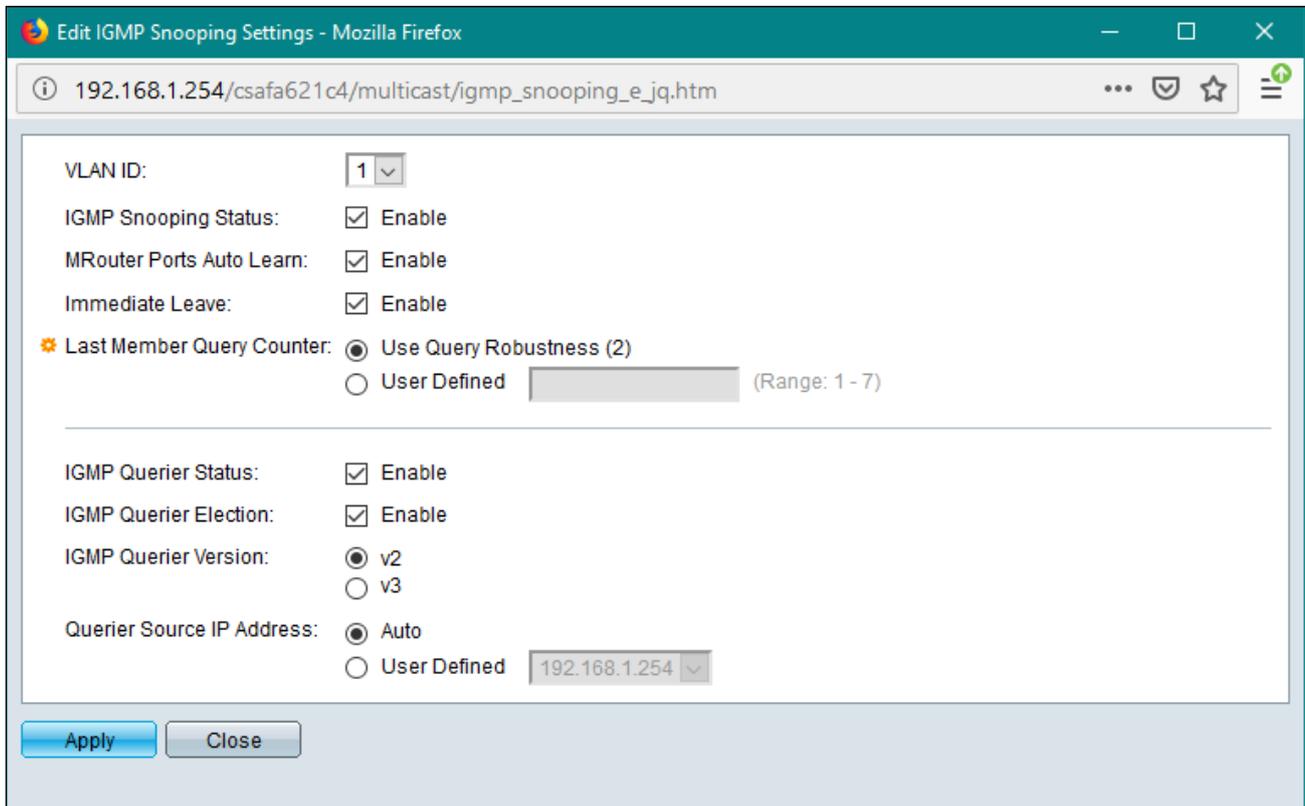
IGMP Querier Election: Enable

IGMP Querier Version: v2
 v3

Querier Source IP Address: Auto
 User Defined

Network Switch Configuration

47. Click the **Enable** checkboxes next to **IGMP Snooping Status**, **Immediate Leave**, and **IGMP Querier Status**. Make sure each of these checkboxes display a checkmark. Leave the rest of the settings as they are.
48. Click the **Apply** button to commit changes.



Edit IGMP Snooping Settings - Mozilla Firefox
 192.168.1.254/csafa621c4/multicast/igmp_snooping_e_jq.htm

VLAN ID:

IGMP Snooping Status: Enable

MRouter Ports Auto Learn: Enable

Immediate Leave: Enable

Last Member Query Counter: Use Query Robustness (2)
 User Defined (Range: 1 - 7)

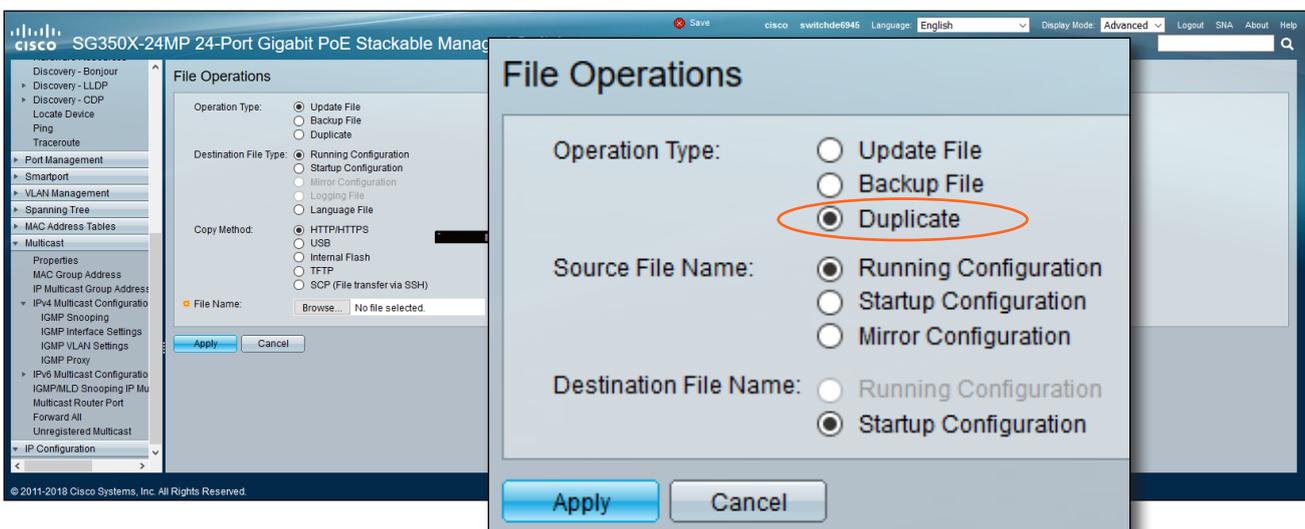
IGMP Querier Status: Enable

IGMP Querier Election: Enable

IGMP Querier Version: v2
 v3

Querier Source IP Address: Auto
 User Defined

49. Click the **VLAN ID** drop-down list, and select the next VLAN ID number. Repeat steps 17 and 18 for each VLAN that was created.
50. Click the **Close** button to dismiss the **Edit IGMP Snooping Settings** dialog.
51. Click **Administration > File Operations** in the menu bar on the left side of the screen. The **File Operations** page will be displayed.
52. Click the **Duplicate** radio button, next to **Operation Type**, then click the **Apply** button to commit changes.



cisco SG350X-24MP 24-Port Gigabit PoE Stackable Manager

File Operations

Operation Type: Duplicate
 Update File
 Backup File

Destination File Type: Running Configuration
 Startup Configuration
 Mirror Configuration
 Logging File
 Language File

Copy Method: HTTP/HTTPS
 USB
 Internal Flash
 TFTP
 SCP (File transfer via SSH)

File Name: No file selected.

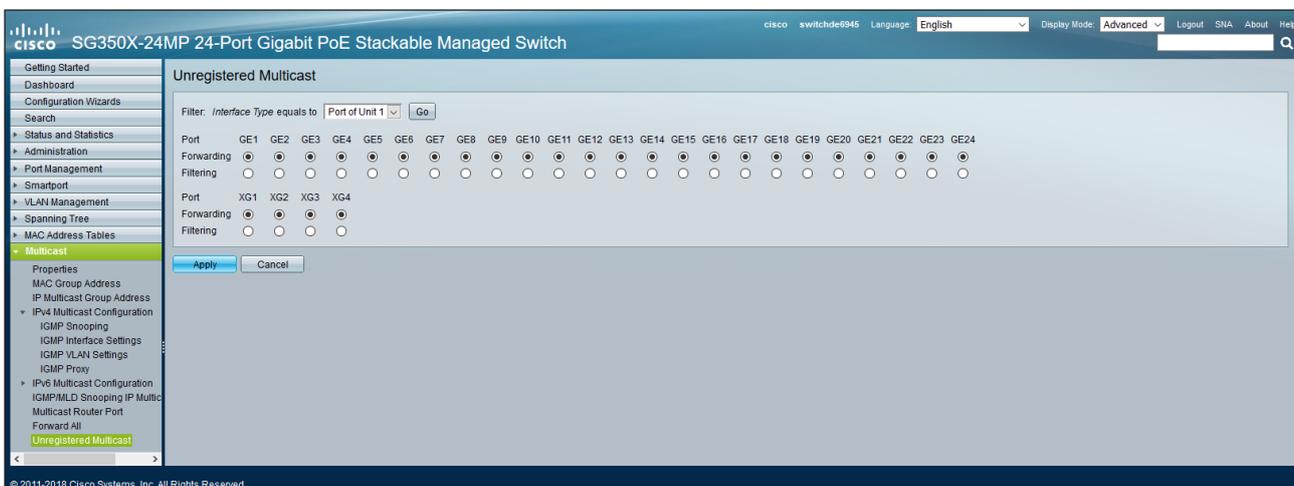
File Operations

Operation Type: Update File
 Backup File
 Duplicate

Source File Name: Running Configuration
 Startup Configuration
 Mirror Configuration

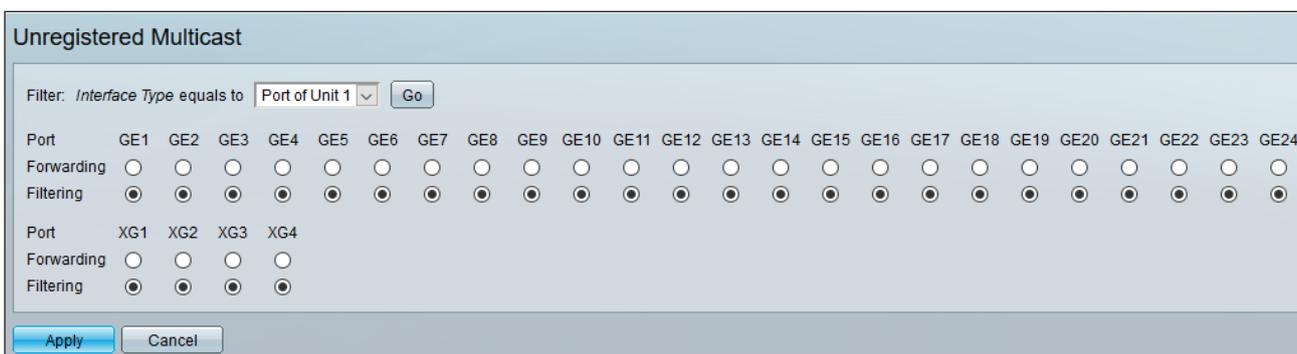
Destination File Name: Running Configuration
 Startup Configuration

53. Click **Unregistered Multicast** from the **Multicast** menu on the left side of the screen. By default, all physical ports will have port forwarding enabled, as shown below.



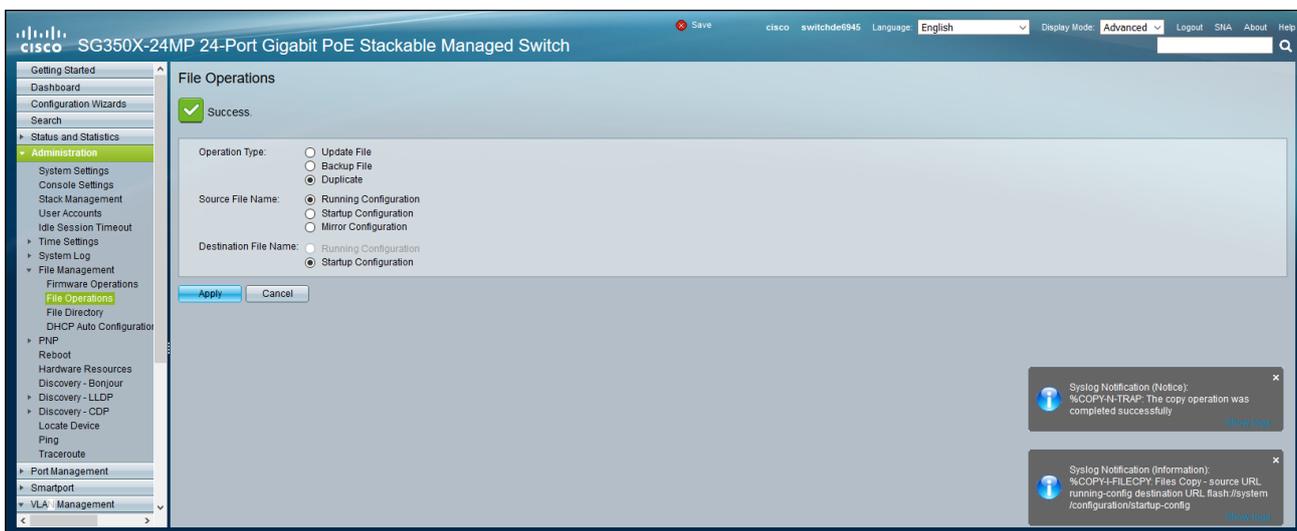
54. Click the **Filtering** radio button to assign port filtering to each port.

55. Click the **Apply** button to commit changes.



56. Click **Administration > File Operations** in the menu bar on the left side of the screen. The **File Operations** page will be displayed.

57. Click the **Duplicate** radio button, next to **Operation Type**, then click the **Apply** button to commit changes.



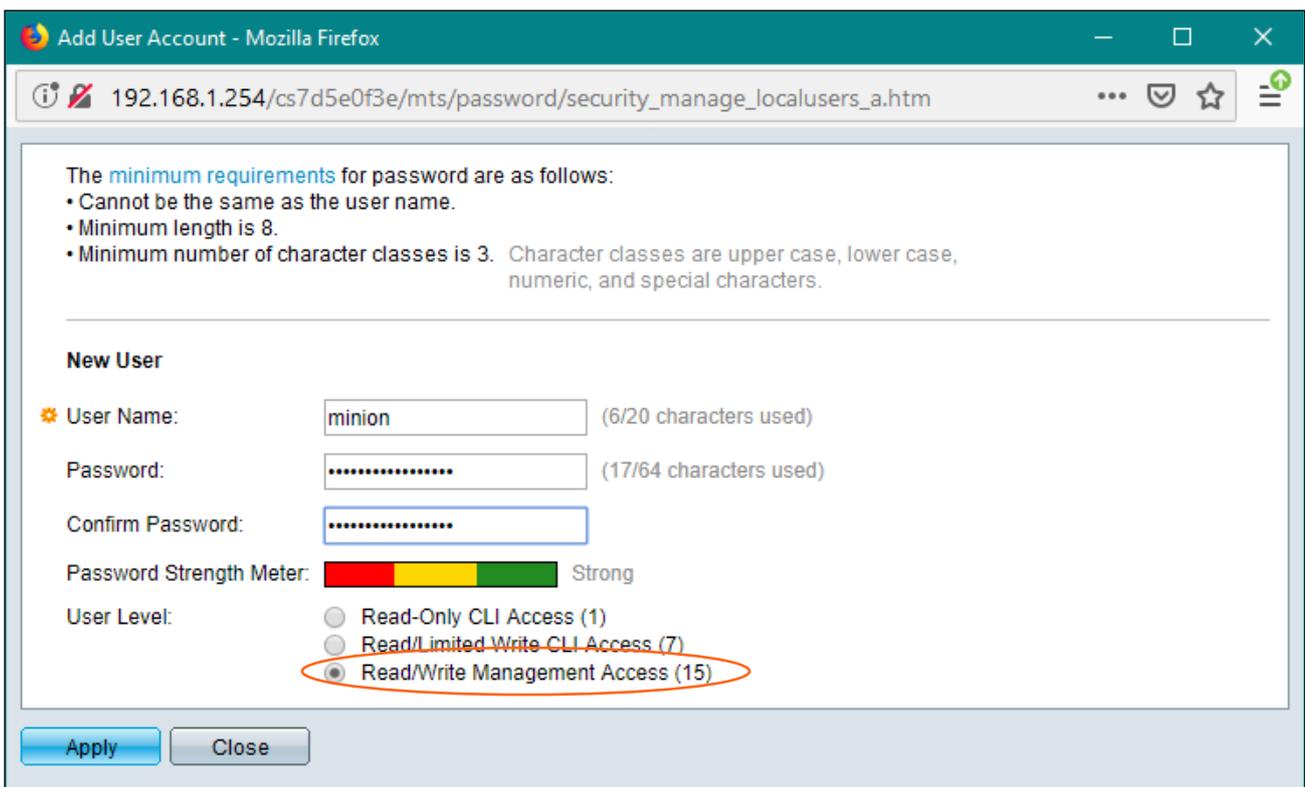
Creating User Accounts

This next section is optional, and provides instructions on creating user accounts. This is only required if multiple users will need access to the network switch.

1. Click **User Accounts** from the **Administration** menu.

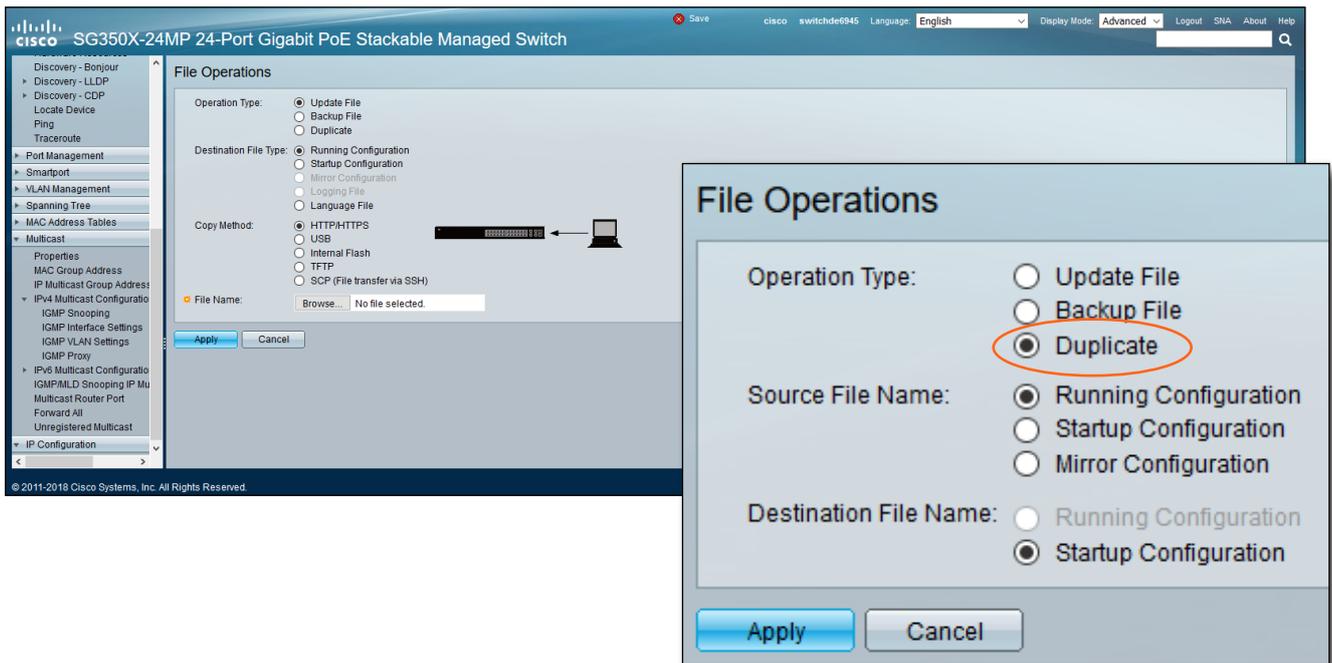


2. Click the **Add...** button to display the **Add User Account** dialog box.
3. Enter the desired username and password in the **User Name** and **Password** fields, respectively. Confirm the password by re-entering it in the **Confirm Password** field.
4. Click the **Read/Write Management Access** radio button, then click the **Apply** button to commit changes.
5. Repeat steps 2 through 4, as required, for each user.
6. Click the **Close** button to dismiss the **Add User Account** dialog box and click **Yes** when prompted to save changes.



Network Switch Configuration

7. Click **Administration > File Operations** in the menu bar on the left side of the screen. The **File Operations** page will be displayed.
8. Click the **Duplicate** radio button, next to **Operation Type**.
9. Click the **Apply** button to commit changes.
10. Switch configuration is complete.



AMS

AMS must be used for configuration of all the OmniStream devices, but before OmniStream is set up, AMS must be set up and up to date. The following instructions will walk through all the AMS set up and OmniStream discovery steps.

Getting an IP Address

AT-AMS-HW

1. Find the IP of the AMS-HW.
 - a. Using the HDMI port, connect an HDMI cable from the HDMI OUT port to an HDMI IN port on the local display. The unit IP will display at the bottom right hand corner of the display.
 - b. If there is no local display, open the connected PC and do an IP scan using any IP scan program.

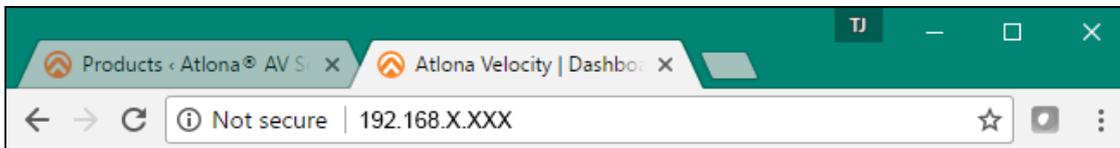
AT-AMS-SW

Follow the installation steps found within the AMS-SW download file. The IP address will be displayed in the Virtual Machine window.

Login

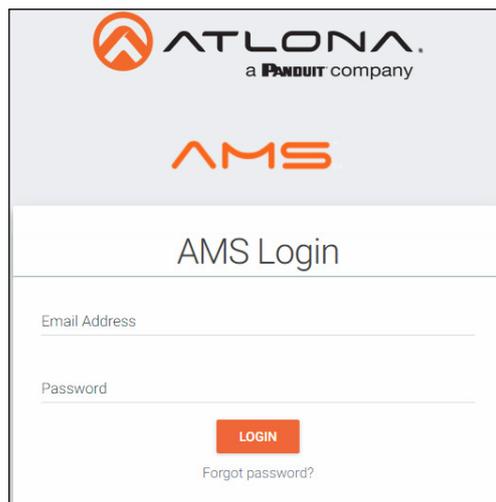
Once AMS has been set up and the IP address located, it can be used to configure the OmniStream devices. Use the following steps for the initial login of AMS.

1. Open any browser and type the IP address in, as shown below.



2. Enter the login information on the AMS web page, then click the **Login** button. Note that the password is masked when typed.

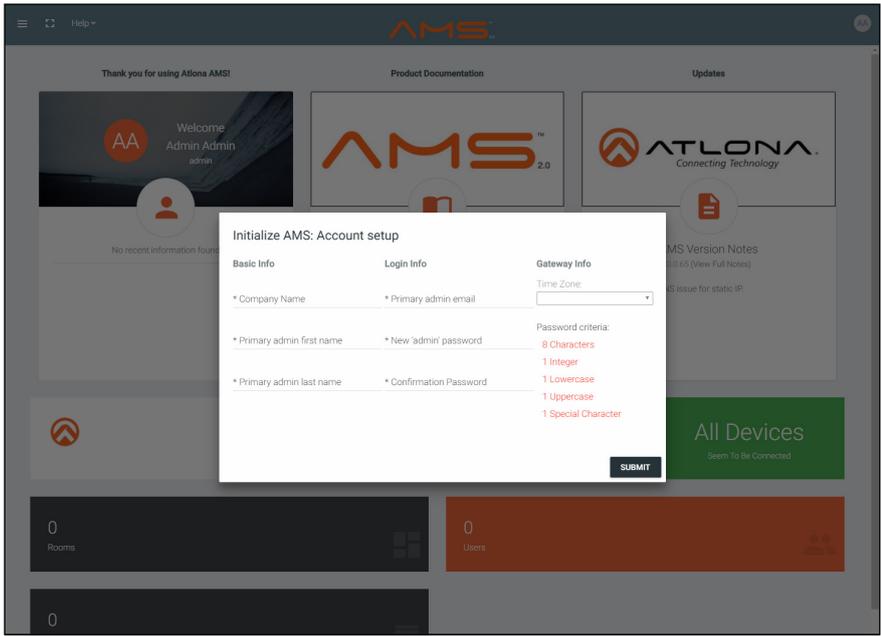
Login: admin
Password: admin



NOTE: Once the initial log in and activation is complete, the new password should be kept somewhere easy to find. If the password is lost, use the steps found within the AMS manual to reset it.

Fill in the initial set up information, including: Company Name, current admin's First & Last name, the admin's email address, and a new password.

NOTE: Passwords must be at least 8 characters and include: 1 number, 1 uppercase letter, 1 lowercase letter, and 1 special character. The text will appear all green when the password meets all criteria.



* New 'admin' password Password criteria:

 8 Characters
 1 Integer
 1 Lowercase
 1 Uppercase
 1 Special Character
 Passwords do not match!

* New 'admin' password Password criteria:

 8 Characters
 1 Integer
 1 Lowercase
 1 Uppercase
 1 Special Character
 Passwords do not match!

* New 'admin' password Password criteria:

 8 Characters
 1 Integer
 1 Lowercase
 1 Uppercase
 1 Special Character
 Passwords Match!

4. Press **SUBMIT** once all information is filled.

Updating

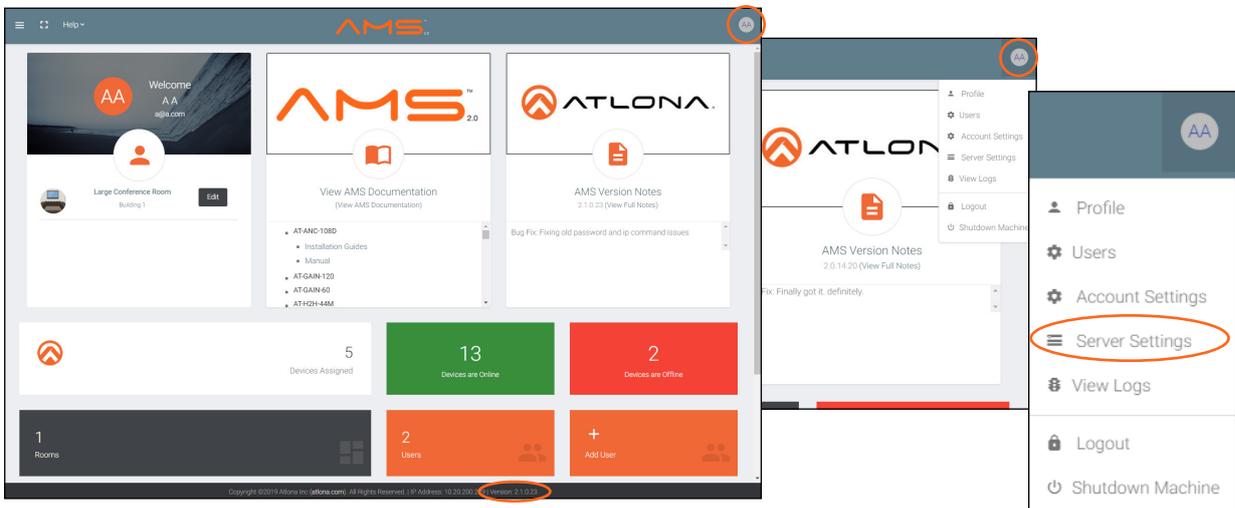
Before discovery, it is best to ensure that AMS is on the most recent firmware.

If the PC or AMS are connected to a network with internet connectivity, AMS will automatically check for updates and give an update notification in the top right corner of the screen if behind. Select the icon and it will go directly to the Firmware tab inside the System Settings. Follow step 4 of the following update instructions.



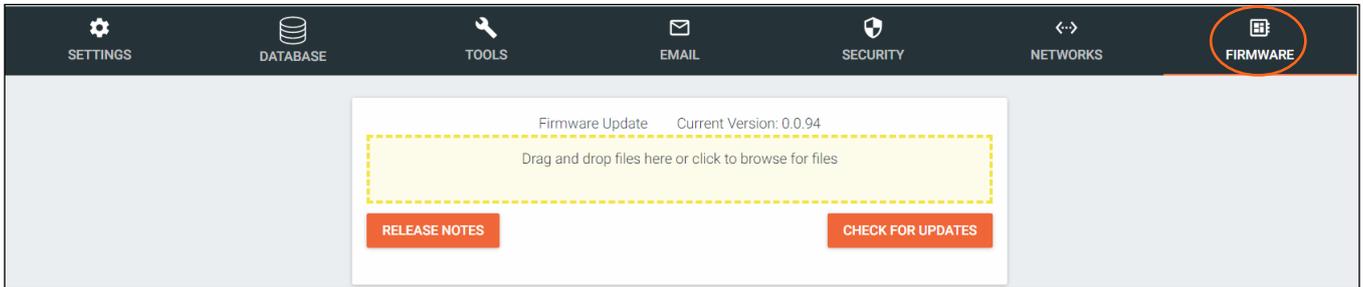
If the PC or AMS do not have internet connectivity, the firmware can be checked and/or downloaded at <https://atlon.com/product/at-ams-sw/> under the Firmware tab. AMS's firmware version can be found at the bottom of the main screen. If a manual update is needed, go to the firmware section within Server Settings.

1. Locate the user icon in the top right corner of the home page and left click to select.

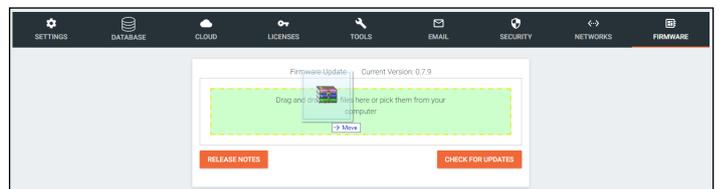
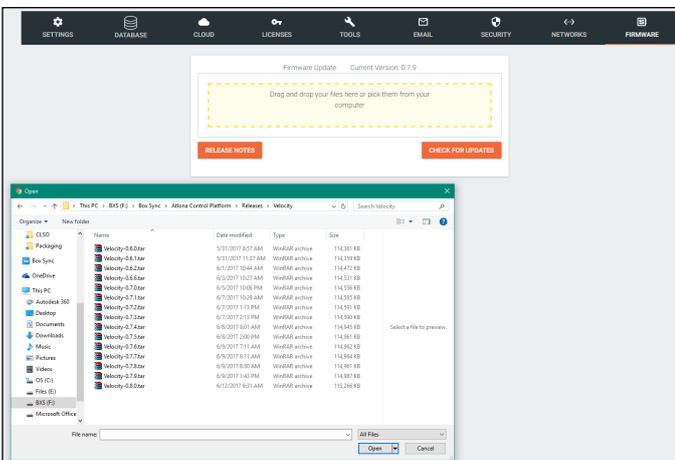


2. Select **Server Settings** from the drop down menu. A new page will open.

3. Select **Firmware** from the top navigation inside of the **Server Settings**.



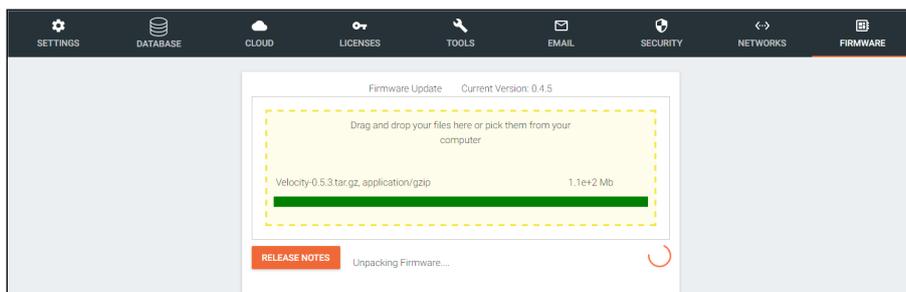
4. Left click on the field to browse the local computer for the firmware file, or drag and drop the firmware into the field.



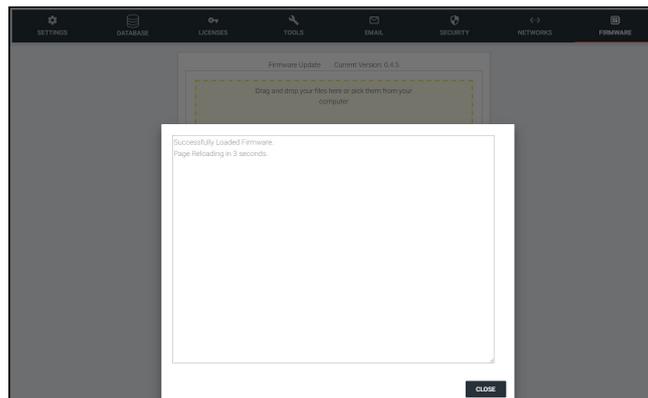
NOTE: AMS update files will be tar.gz file extensions. These are compressed files and should not be extracted before upload.

NOTE: When downloading the firmware file on a MAC, ensure that the file is not being auto-extracted. The option to turn off auto-extraction will be found within the browser settings.

Firmware upgrading will start automatically.



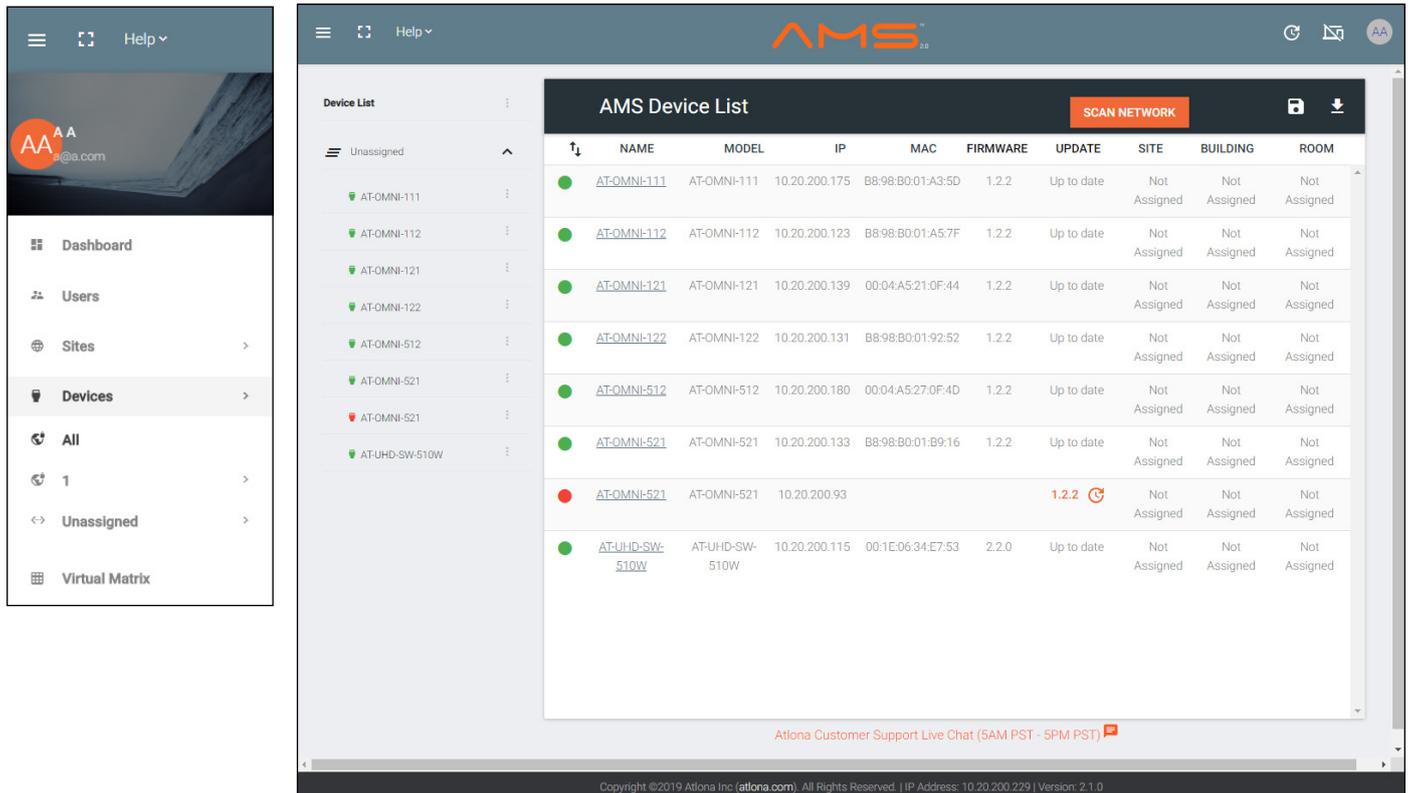
When the firmware upgrade is successfully completed, a pop up window will appear. It will close a few seconds later and will redirect the page to **Settings**.



Discovery

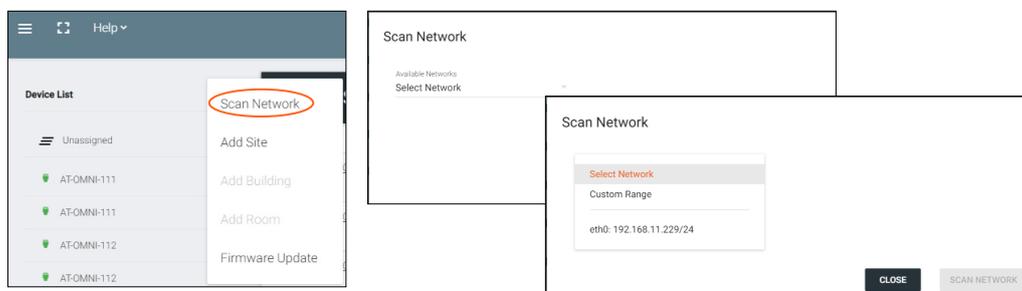
Once, AMS is fully updated, all OmniStream devices can be found through the device list or rooms page. These instructions will provide steps for device list discovery.

1. Select the ☰ button from the top left corner and select **Devices**.
2. Select **All** from the available options. A new window will appear.



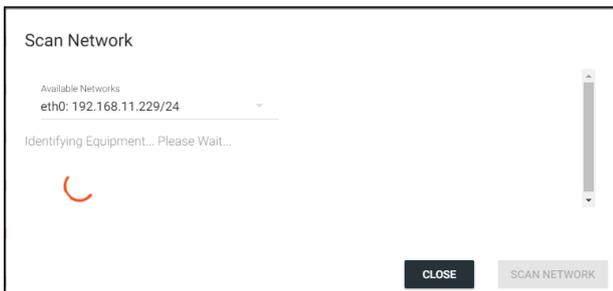
OmniStream devices are located through mDNS autoscans and should automatically be discovered and placed under the unassigned list, but if a device isn't listed (or using the AT-OMNI-311 and AT-OMNI-324), use the network scan to find it.

1. Select the Scan Network button or press the : icon next to Device List. A new pop up will appear.
 - a. If : is selected, choose Scan Network from the drop down menu.



2. Select Custom Range (a new screen will take over) or the auto detected network eth0.

- a. If the auto detected network eth0 is selected, press Scan Network to start the scan.
- b. If Custom Range is selected, select between IP Range and Subnet Scan

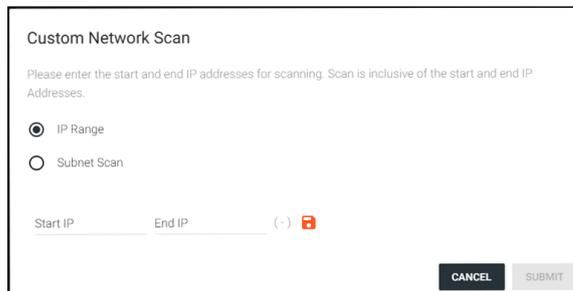


Scan Network

Available Networks
eth0: 192.168.11.229/24

Identifying Equipment... Please Wait...

CLOSE SCAN NETWORK



Custom Network Scan

Please enter the start and end IP addresses for scanning. Scan is inclusive of the start and end IP Addresses.

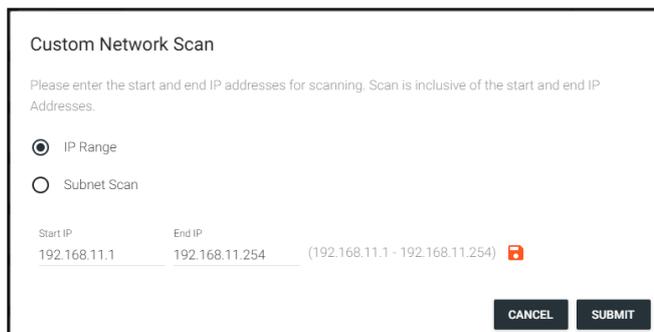
IP Range
 Subnet Scan

Start IP End IP (-) [save icon]

CANCEL SUBMIT

1. Type in the network range or subnet information.

NOTE: It is recommended to keep the network range scan to under a 512 IP range. The larger the network range, the longer the scan will take. On subnet scan, AMS will automatically limit the scan to 512 on subnet 23 or 256 on subnet 24.



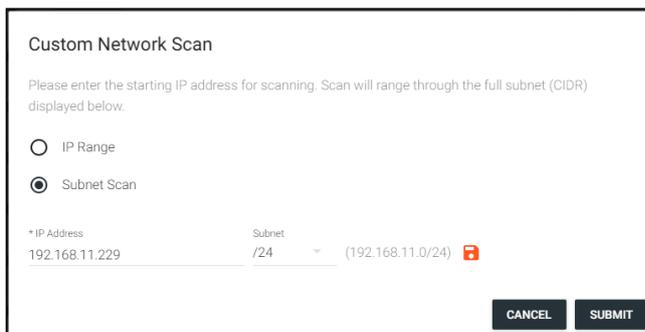
Custom Network Scan

Please enter the start and end IP addresses for scanning. Scan is inclusive of the start and end IP Addresses.

IP Range
 Subnet Scan

Start IP End IP (192.168.11.1 - 192.168.11.254) [save icon]

CANCEL SUBMIT



Custom Network Scan

Please enter the starting IP address for scanning. Scan will range through the full subnet (CIDR) displayed below.

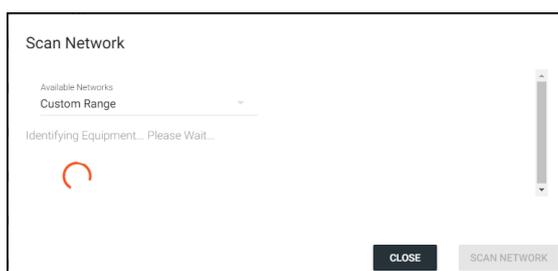
IP Range
 Subnet Scan

*IP Address Subnet (192.168.11.229 /24 (192.168.11.0/24) [save icon]

CANCEL SUBMIT

2. Press the save icon next to IP field. A green CustomNetwork Saved Successfully message will appear at the bottom of the page when the custom scan settings are saved.
3. Press the Submit button to start the scan. The pop up will close when the scan is completed.

CustomNetwork Saved Successfully. UNDO



Scan Network

Available Networks
Custom Range

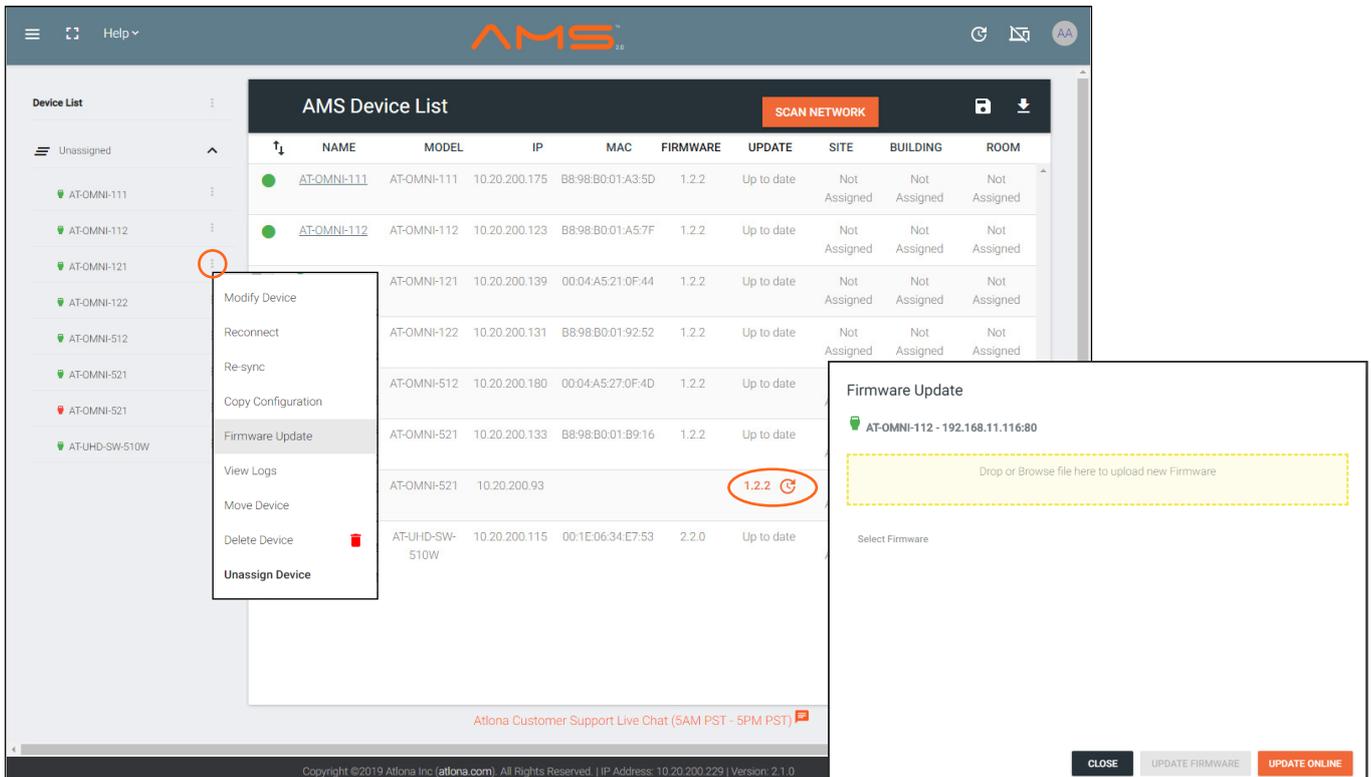
Identifying Equipment... Please Wait...

CLOSE SCAN NETWORK

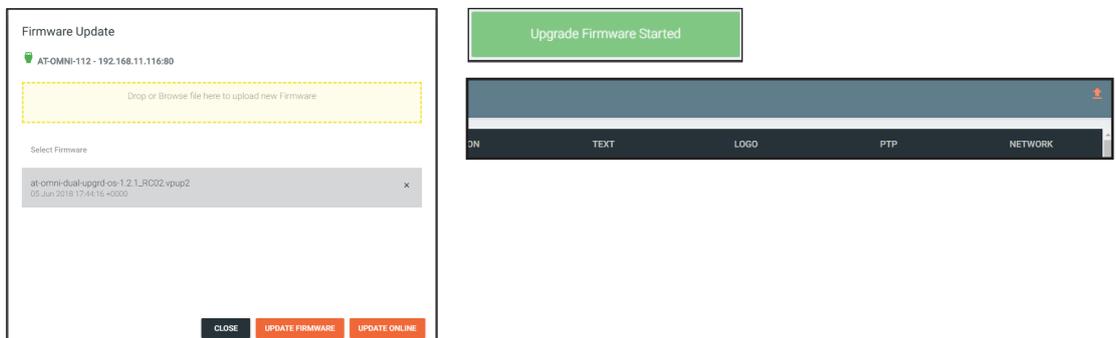
Updating Device Firmware

Once all devices are discovered, ensure they are the correct firmware. When AMS or the PC connected to AMS is connected to the internet, it will automatically display if an update is needed under the update list or the firmware tab can be checked on <https://atlon.com> for each individual device.

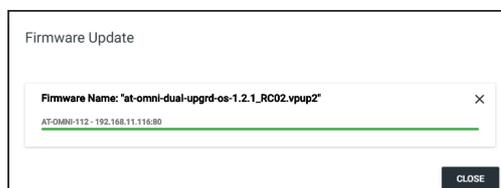
1. Select the update icon within the device list (circled below) or left click the : icon and select Firmware Update from the drop down menu. A new pop up will appear.



3. Drag and drop the firmware from the local PC or select the yellow box to browse the local computer. Once the firmware file has been uploaded, it will appear under the **Select Firmware** section of the dialog box.
4. Select the firmware file name, so that it is highlighted grey.
5. Select **UPDATE FIRMWARE** button to begin the update process, at the bottom of the dialog box, to begin the update process.



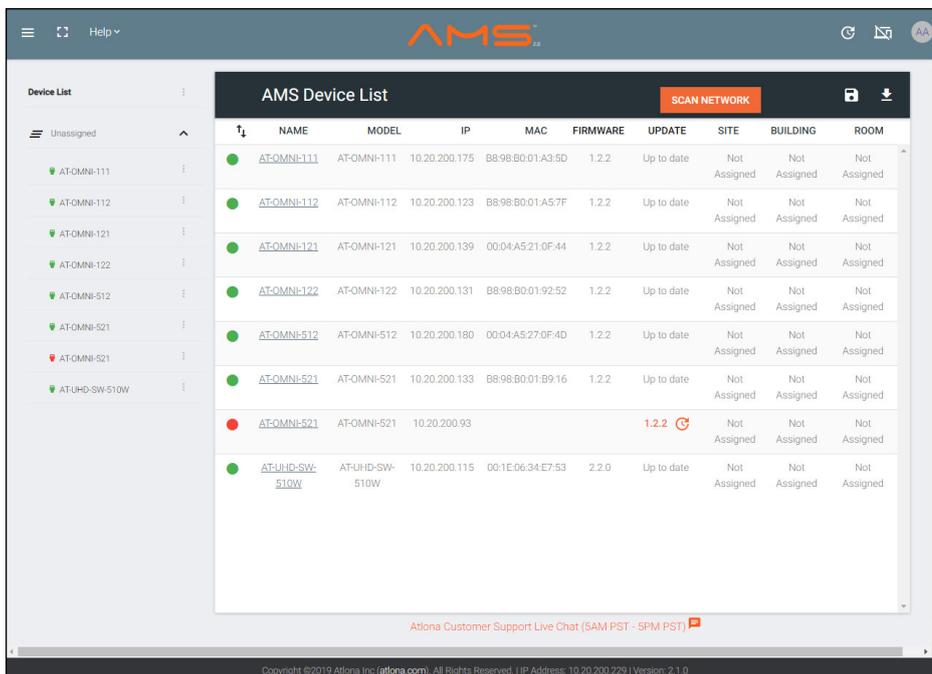
After the **UPDATE FIRMWARE** button is clicked, the Upgrade Firmware Started message box will be displayed at the bottom of the page.



The progress bar for the update process will be displayed. The update process should take a few seconds. When done, press the close button and then refresh the browser page. The update is complete.

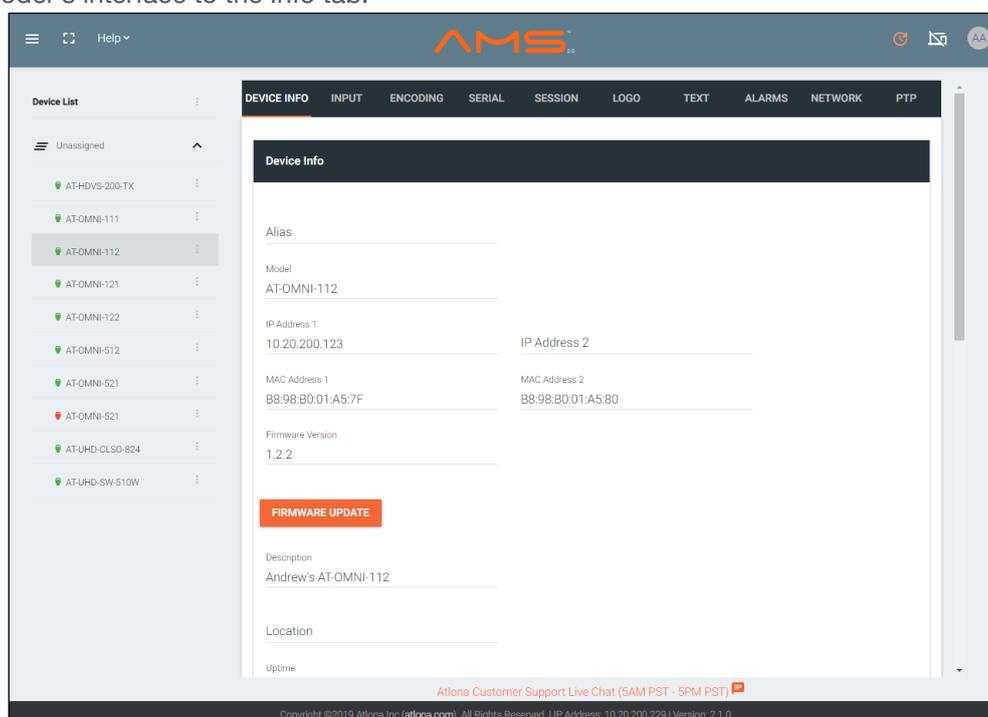
Configuring OmniStream Devices

Once all devices are up to date, they can be configured.



If labeling devices, the IP address can be found on the device list, next to the MAC address. If the MAC address was not noted, the IDENTIFY button can be used within the interface discussed in this section.

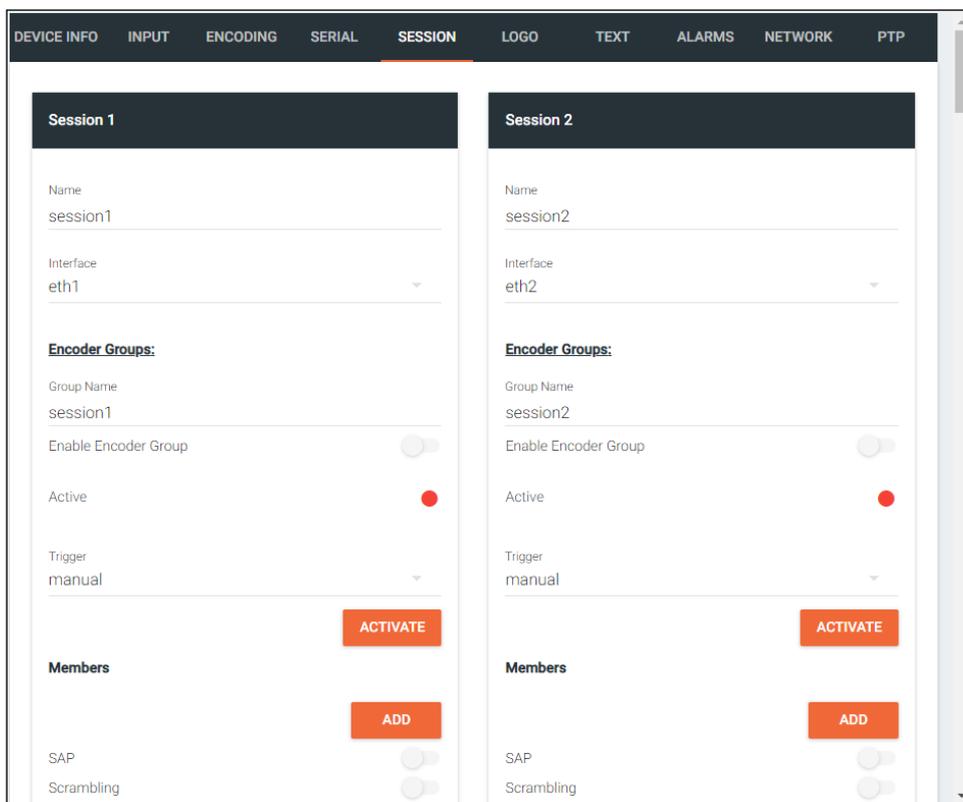
1. Select an encoder (AT-OMNI-11X), either from the Unassigned list or the name link in the device list. This will open the encoder's interface to the Info tab.



NOTE: Scroll to the bottom of the info tab to find the IDENTIFY button, pressing it will blink the front LEDs of the currently selected OmniStream encoder.



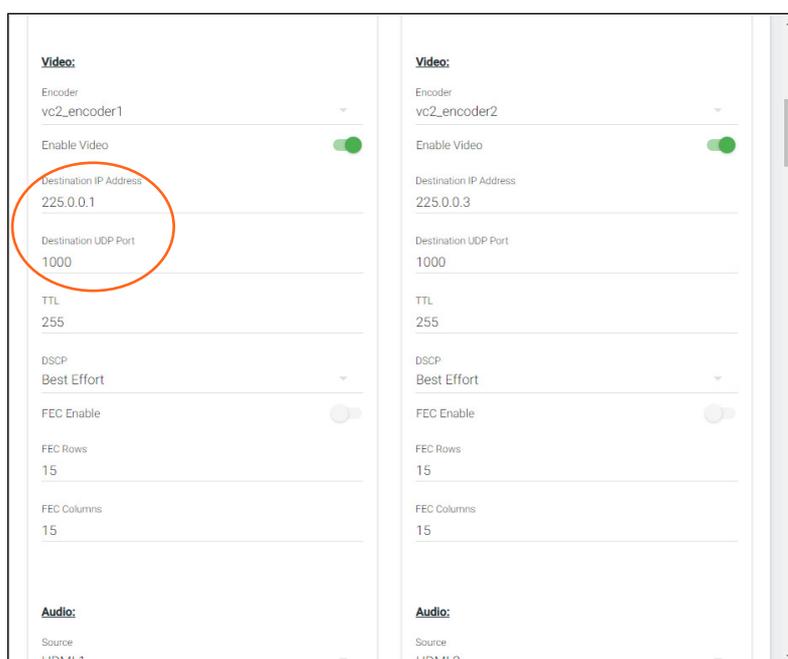
2. Select the Session tab.



NOTE: If using AES67 audio, select the SAP slider and enable it.



3. For the initial configuration to make sure all things are set up to display audio and video to other devices, only the Destination IP Address and UDP Port are needed. Scroll down to the Video section first.
4. AMS will automatically assign IP address and UDP port, notate the Video IP and Port or if preferred, type in a new IP and Port.

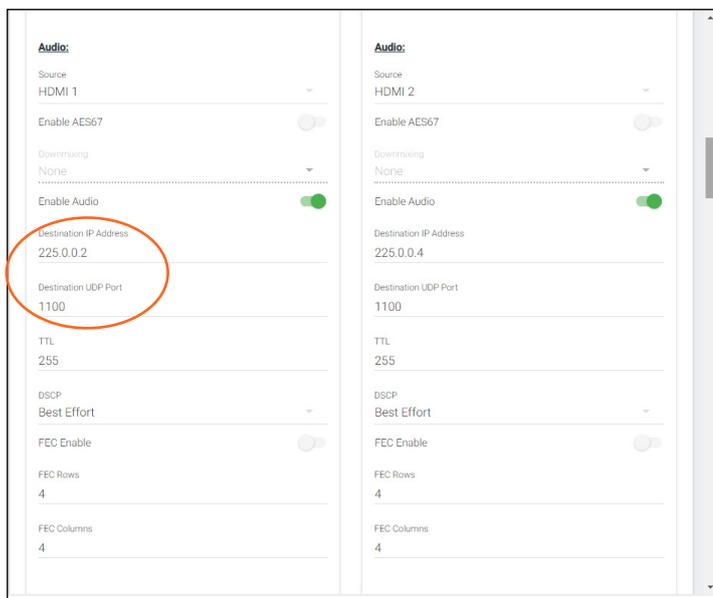


NOTE: Start with Session 1 and repeat for all the sessions.

NOTE: Default Destination IP Address will be 225.0.0.1 and UDP port 1000.

Configuring OmniStream Devices

4. Scroll down to the Audio section.
5. Notate the Audio IP and Port or type in a new IP/port. The audio IP and port will differ from the video settings, this allows audio to be routed independently from the video. It is best to have the Destination UDP Port different than the video. So if video is 1000, use 1100 for the audio.



NOTE: Start with Session 1 and repeat for all the sessions.

NOTE: Default Destination IP Address will be 225.0.0.2 and UDP port 1100.

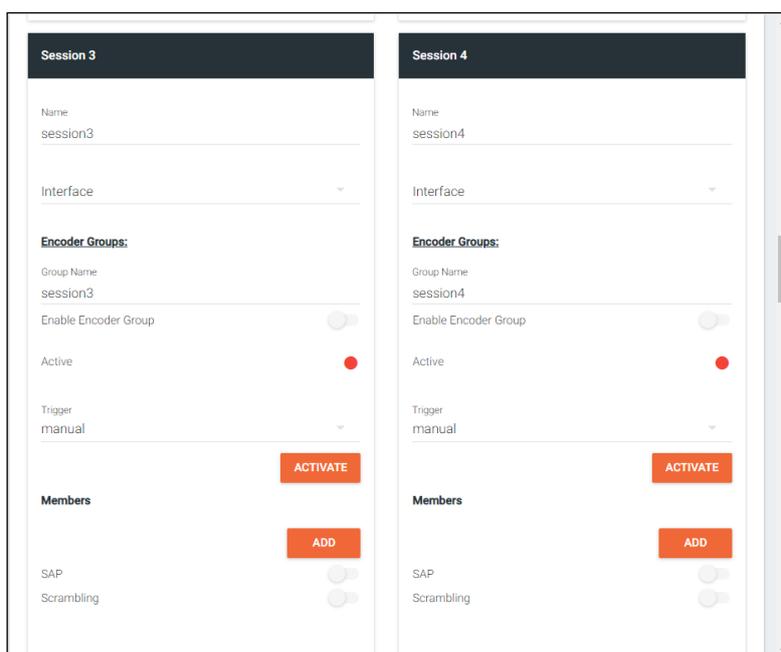
NOTE: In order to work with AT-OMNI-238, set the IP address to 239.69.X.X and UDP port 1100.

NOTE: If using AES67 audio routing, be sure to select the Enable AES67 slider so that it is green. The AES67 audio stream will use the IP and Port from step 3.



6. Repeat this step for Session 2 if using a dual channel encoder.

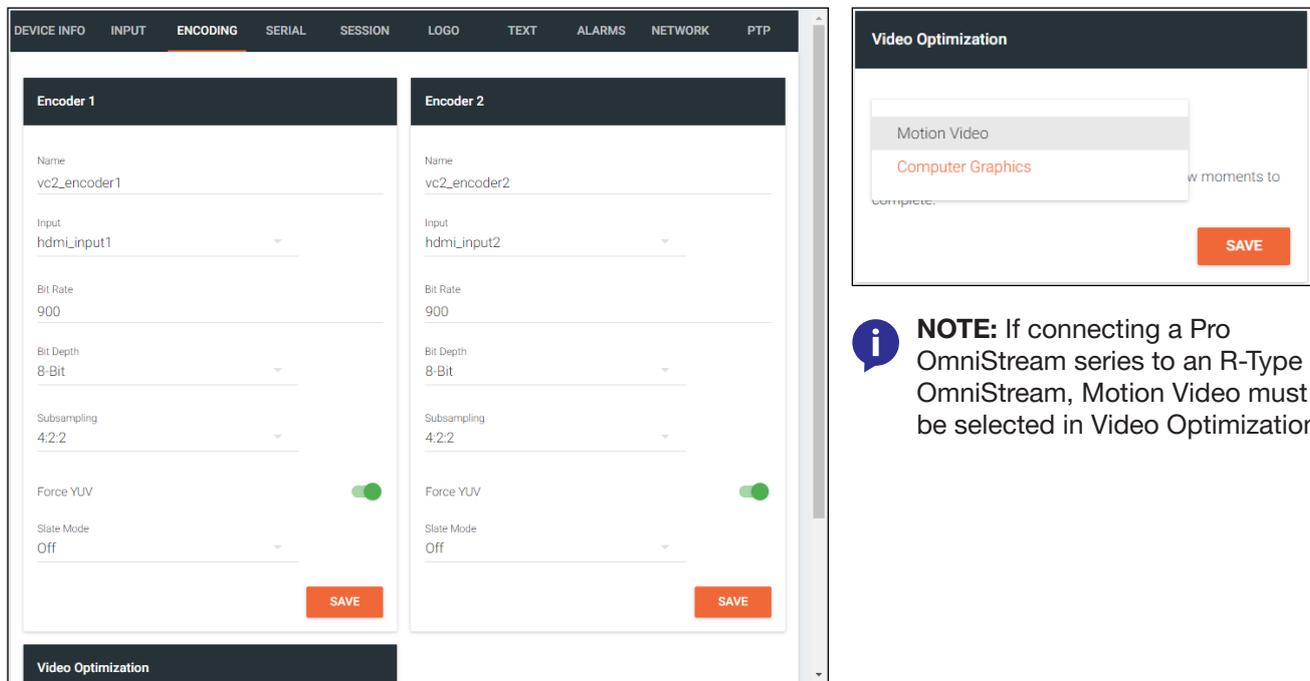
NOTE: There will be extra sessions listed on the encoders, these are for redundancy. View the Omni manuals to go over redundancy.



Configuring OmniStream Devices

For Pro Series OmniStreams only:

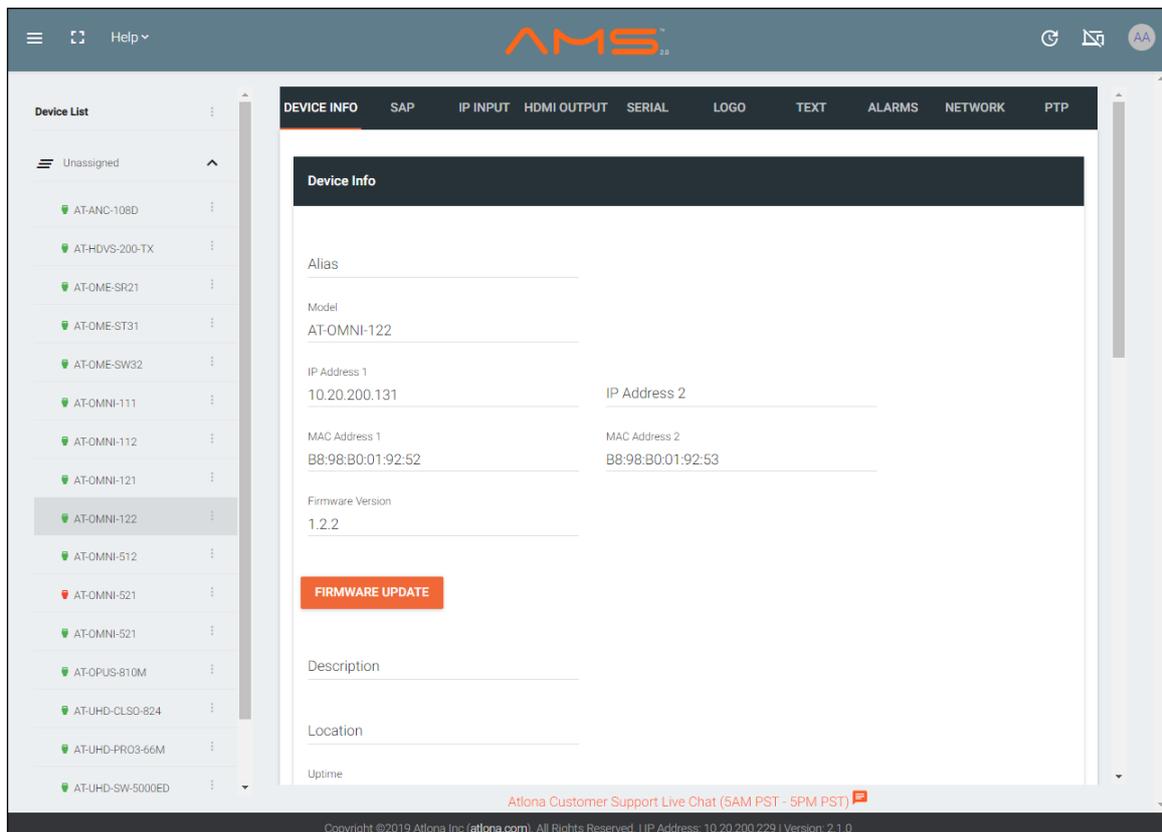
With firmware 1.2.2 on Rev C (found on barcode at the bottom of the unit) and above, Video Optimization can be used. The selected optimization option on the Encoder must be selected on the Decoder.



The screenshot shows the 'ENCODING' tab for two encoders. Encoder 1 settings include Name: vc2_encoder1, Input: hdmi_input1, Bit Rate: 900, Bit Depth: 8-Bit, Subsampling: 4:2:2, Force YUV: On, and Slate Mode: Off. Encoder 2 settings include Name: vc2_encoder2, Input: hdmi_input2, Bit Rate: 900, Bit Depth: 8-Bit, Subsampling: 4:2:2, Force YUV: On, and Slate Mode: Off. A 'Video Optimization' dialog box is open, showing 'Motion Video' selected and 'Computer Graphics' as an option. A 'NOTE' icon is present next to the dialog.

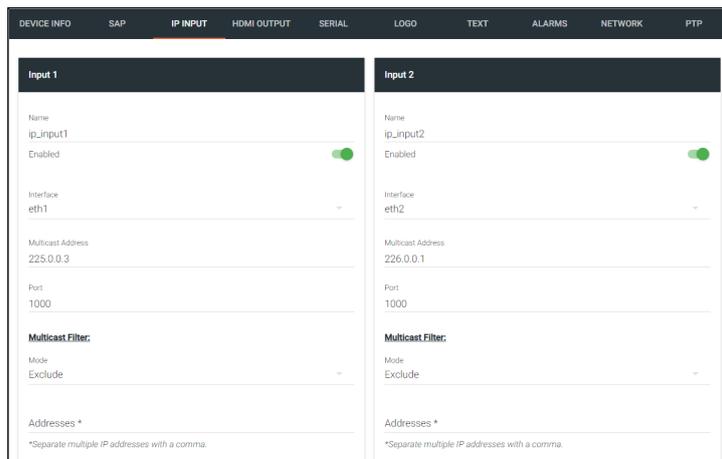
NOTE: If connecting a Pro OmniStream series to an R-Type OmniStream, Motion Video must be selected in Video Optimization.

8. Repeat steps 1 through 6 for all encoders.
9. Open a decoder (AT-OMNI-12X).

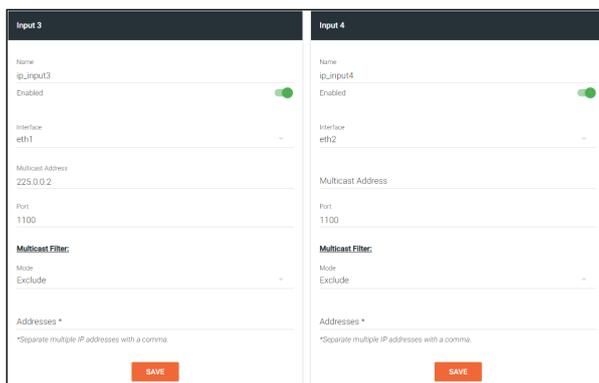


The screenshot shows the AMS web interface. On the left is a 'Device List' with various models. The main panel shows 'Device Info' for 'AT-OMNI-122'. Fields include Alias, Model (AT-OMNI-122), IP Address 1 (10.20.200.131), IP Address 2, MAC Address 1 (B8:98:B0:01:92:52), MAC Address 2 (B8:98:B0:01:92:53), and Firmware Version (1.2.2). A 'FIRMWARE UPDATE' button is visible. The footer shows 'Atlona Customer Support Live Chat (5AM PST - 5PM PST)' and 'Copyright ©2019 Atlona Inc (atlona.com). All Rights Reserved. | IP Address: 10.20.200.229 | Version: 2.1.0'.

10. Select the IP Input tab.

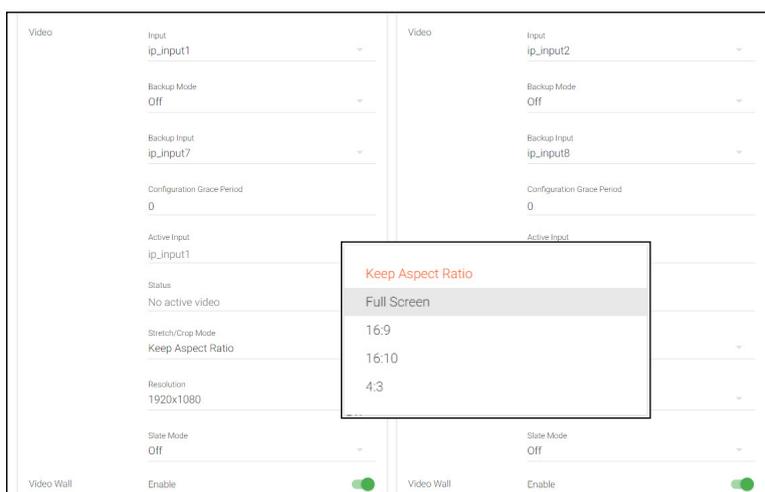


11. Set the Multicast Address to match the video Destination IP and Port from the encoder. **e.g.** Session 1 from the Omni 112.
12. Scroll down to Input 3.
13. Enter the IP and Port from the audio source stream to be routed to HDMI OUT 1. **e.g.** Session 3 from the Omni 112.



14. Repeat for Session 2 (Video for HDMI OUT 2) and Session 4 (HDMI OUT 2 and analog audio) on the Omni dual channel decoders.
15. Repeat steps 9 through 14 for all decoders.

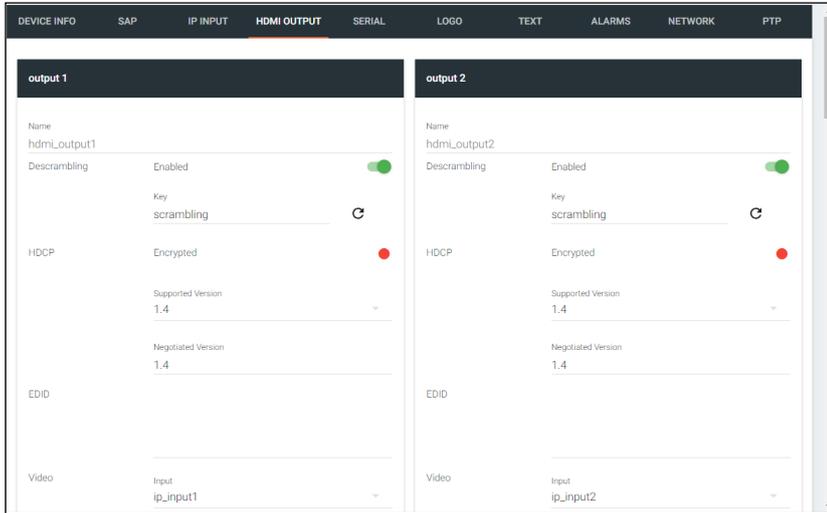
NOTE: If the OmniStream devices will be used in a video wall, open the HDMI OUTPUT tab and scroll to the under the Video section and select the slider to enable Video Wall. Select Full Screen from the Stretch/Crop Mode drop down menu under the Video section. No other settings need to be chosen at this time. View the [Video Walls \(page 55\)](#) section for configuration.



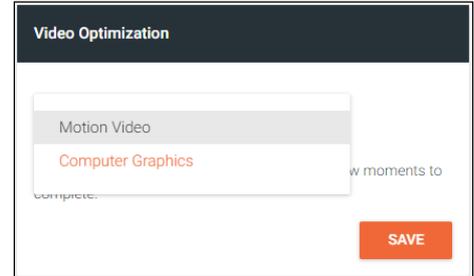
Configuring OmniStream Devices

For Pro Series OmniStreams only:

With firmware 1.2.2 on Rev C (found on barcode at the bottom of the unit) and above, Video Optimization can be used. The selected optimization option on the Decoder must match the Encoder.



output 1	output 2
Name: hdmi_output1	Name: hdmi_output2
Descrambling: Enabled	Descrambling: Enabled
Key scrambling: [refresh icon]	Key scrambling: [refresh icon]
HDCP: Encrypted	HDCP: Encrypted
Supported Version: 1.4	Supported Version: 1.4
Negotiated Version: 1.4	Negotiated Version: 1.4
EDID: [empty field]	EDID: [empty field]
Video Input: ip_input1	Video Input: ip_input2



NOTE: If connecting a Pro OmniStream to a R-Type OmniStream, Motion Video must be selected in Video Optimization.

Testing Connectivity

Now that all the OMNIs are set to pass and receive audio and video over IP, basic testing can start.



NOTE: Only one source and display are needed for testing, but multiple can be used, to avoid having to disconnect and reconnect the HDMI cable from the OMNIs.

1. Connect the HDMI source to the first encoder port.
2. Connect the HDMI Display to the decoder set up to receive that stream.

If all the streams were set up correctly, audio and video will be passed.

1. Repeat steps 1 and 2 for all encoder and decoder ports.

The Audio / Video Settings section can be used to adjust video input and output resolutions and settings for each stream, for in depth settings, view the OmniStream manuals.

IR Control

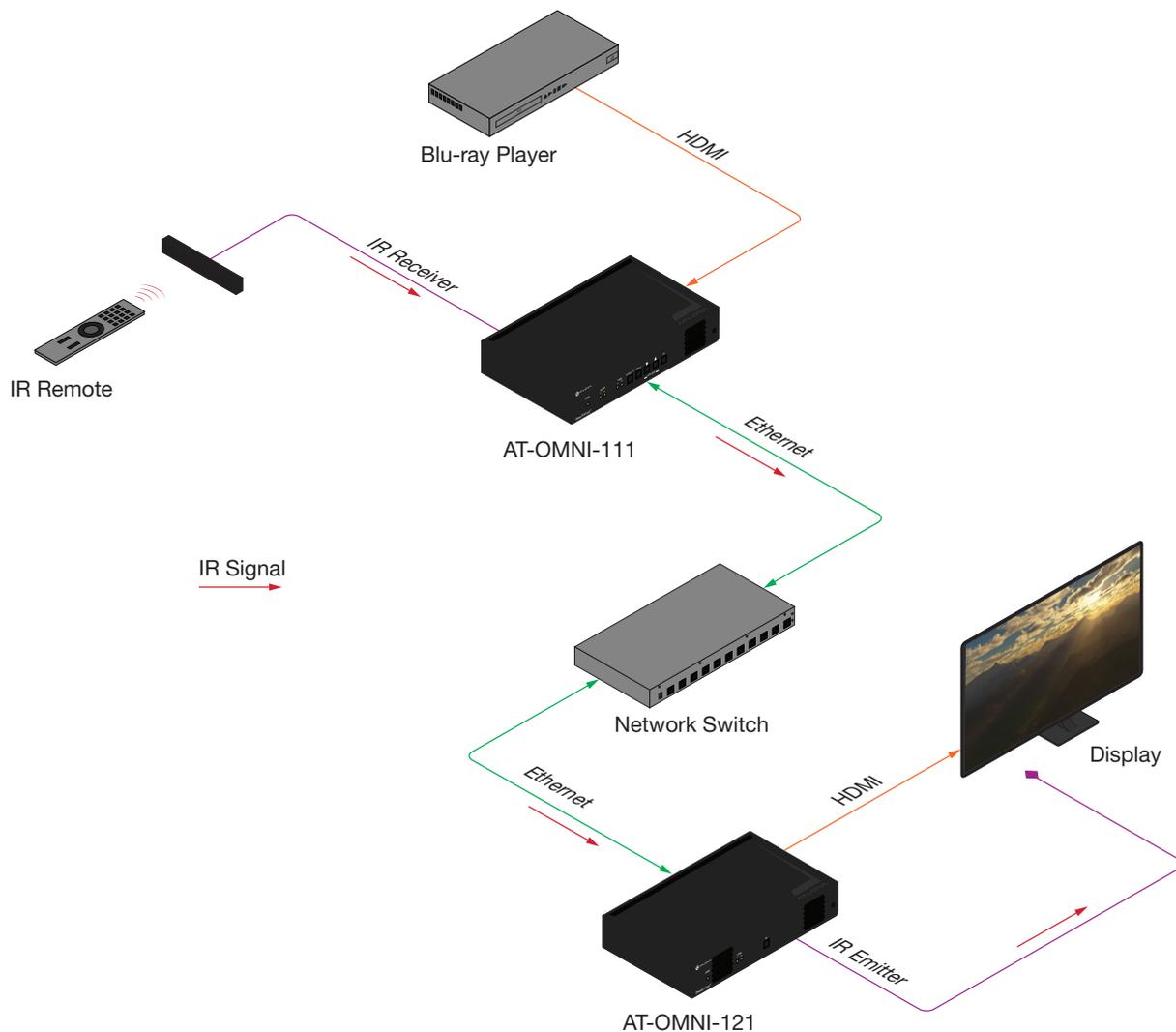
Controlling the Display using the Display's IR Remote

The same port that provides RS-232 connections also supports bidirectional IR pass-through, allowing a device to be controlled from either the headend or the decoder endpoint. This step is optional. IR control is only supported on **RS-232 2** port (bottom set of connectors).

The following sections provide step-by-step instructions for the following topics:

- Controlling the Display using the Display's IR Remote
- Controlling the Display using a Control System

The illustration below shows a display device being controlled from the encoder. Refer to the next page for details on how to connect the IR emitter and IR receiver.



Required Equipment

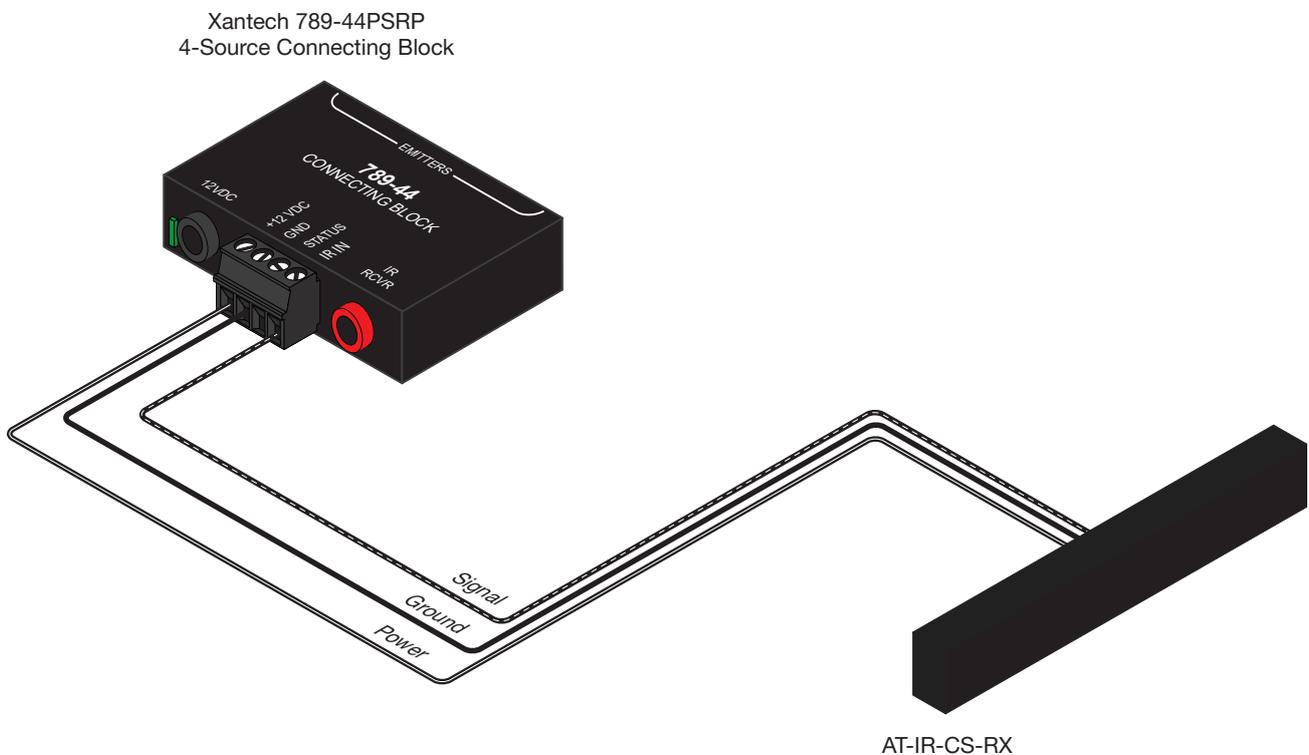
Atlona has tested and verified the following components for this application. However, other components may also be used. Note that IR control is only supported on **RS-232 2** port (bottom set of connectors) of the OmniStream encoder and decoder.

- Xantech 789-44 4-Source Connecting Block
- Xantech 12 V PSU
- IR Receiver (Atlona AT-IR-CS-RX)
- IR Emitter (Atlona AT-OMNI-IR-TX)

Connecting the IR Receiver to the Encoder

1. Unscrew the captive screw connectors on the Xantech 789-44 4-Source Connecting Block, using a regular screwdriver, and connect the SIGNAL, GROUND, and POWER leads of the AT-IR-CS-RX to the Xantech 789-44 4-Source Connecting Block, as shown below. The presence or absence of white markings on each wire of the AT-IR-CS-RX will denote the signal type:

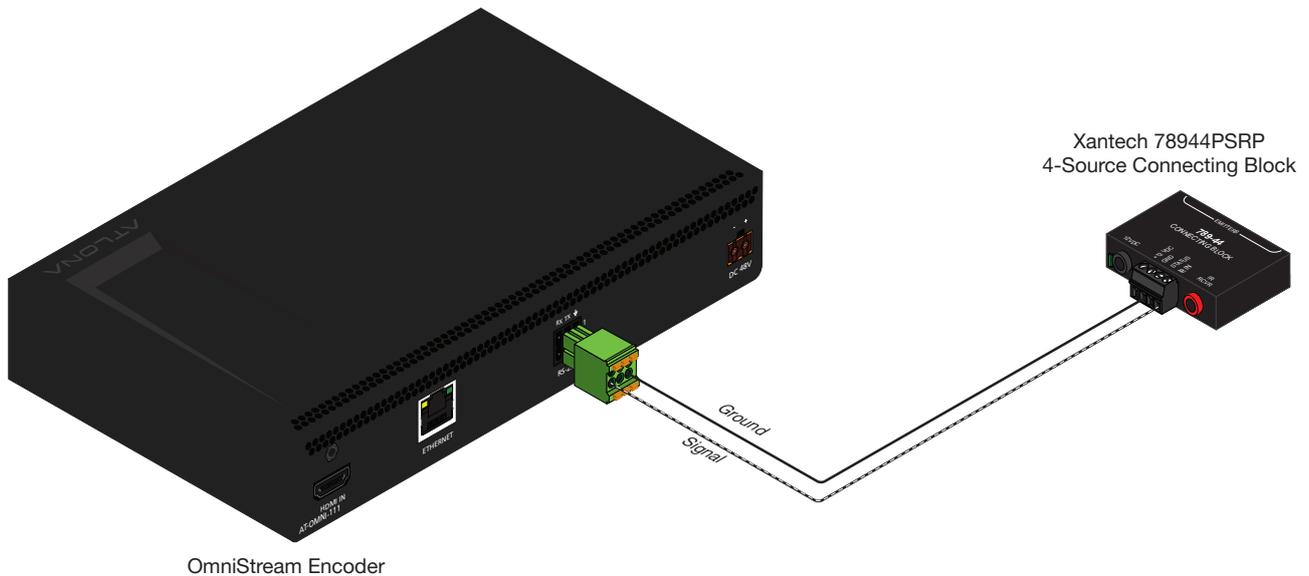
- IR IN = Dashed dark gray line
- GND = Solid (no marking) black wire
- +12 VDC = solid dark gray line



2. Connect the IR IN and GND leads, from the 789-44 4-Source Connecting Block, to the **RX** and \perp pins, respectively, of the **RS-232 2** port (bottom port) of the encoder, as shown.



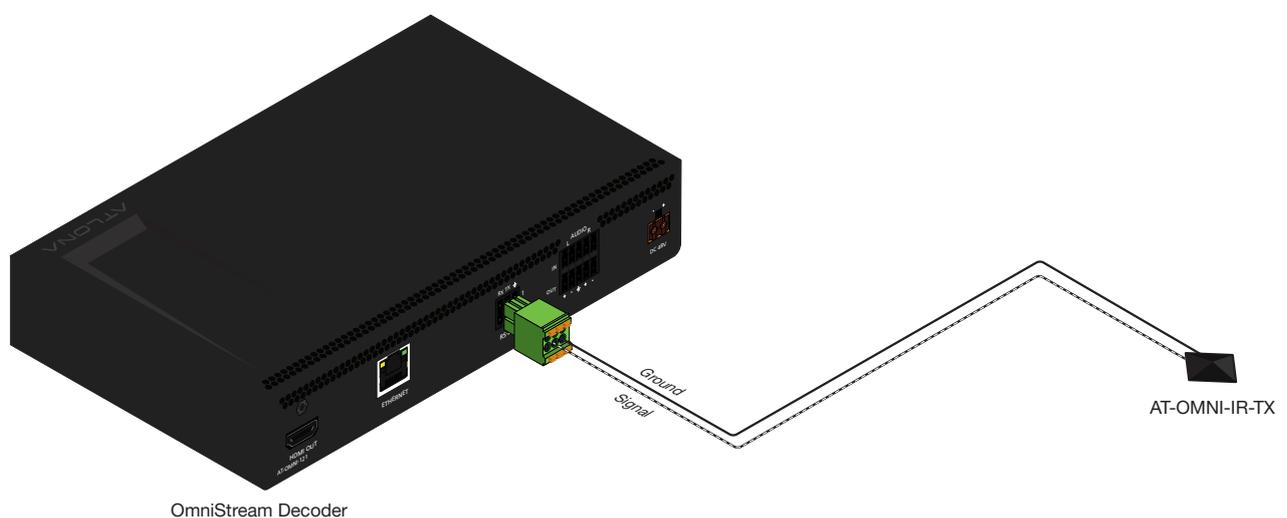
NOTE: The IR IN, GND, and +12 VDC wires, from Step 1, have been removed from the illustration below, for purposes of clarity.



3. Connect the Xantech 12 V power supply (or other compatible 12 V DC power supply) to the 12VDC connector on the Xantech 789-44 4-Source Connecting Block.

Connecting the IR Emitter to the Decoder

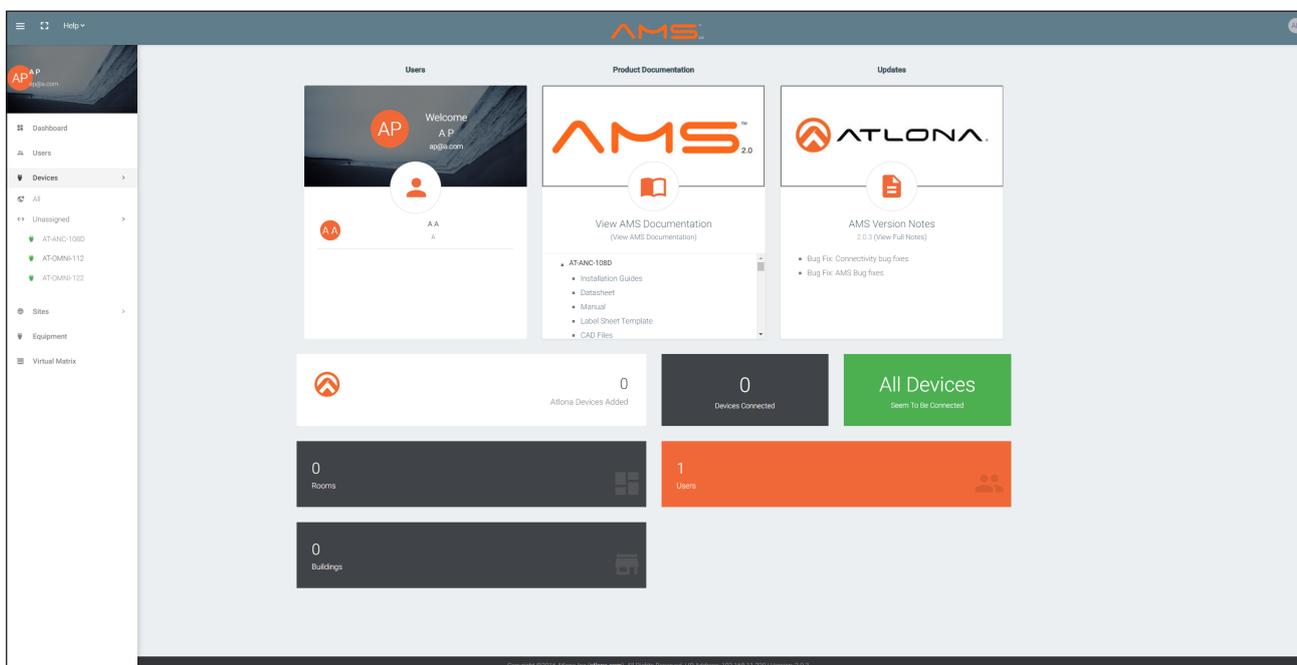
1. Connect the included 6-pin Phoenix connector to the **RS-232 2** port on the encoder.
2. Connect the SIGNAL wire of the AT-OMNI-IR-TX, to the **TX** (middle) terminal on the **RS-232 2** port.
3. Connect the GROUND wire of the AT-OMNI-IR-TX to the \perp terminal on the **RS-232 2** port.



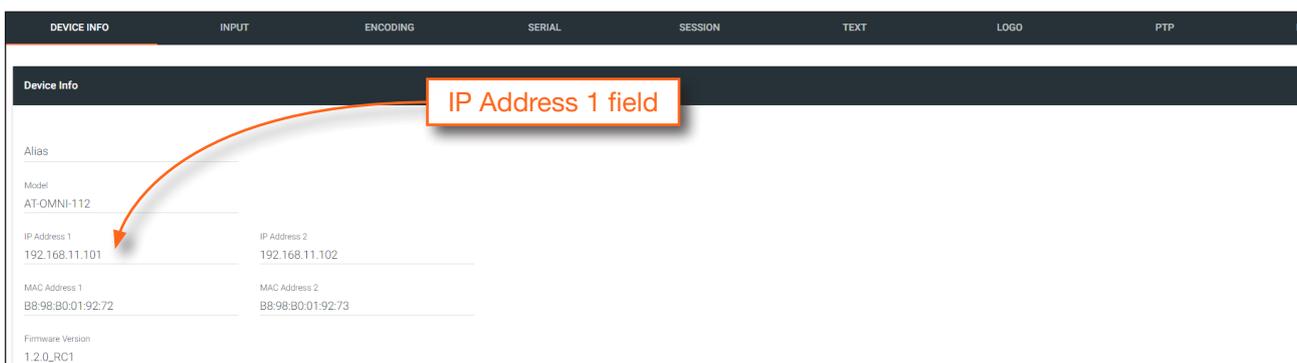
Identifying the Encoder using AMS

1. Launch a web browser and enter the IP address of AMS in the address bar.
2. Enter the required login credentials. The default login is:

Username: admin
Password: Atlona
3. Click the **Login** button.
4. The AMS Dashboard will be displayed.
5. Click the ☰ icon, in the upper-left corner of the AMS Dashboard.



6. Click **Devices** from the fly-out menu.
7. Click the **All** option.
8. Click the desired encoder within the **AMS Device List** window. The AMS interface for the encoder will be displayed.



9. Locate and make note of the IP address of the encoder, which can be found in the **IP Address** field. If using dual-channel encoders, use the IP address in the **IP Address 1** field.

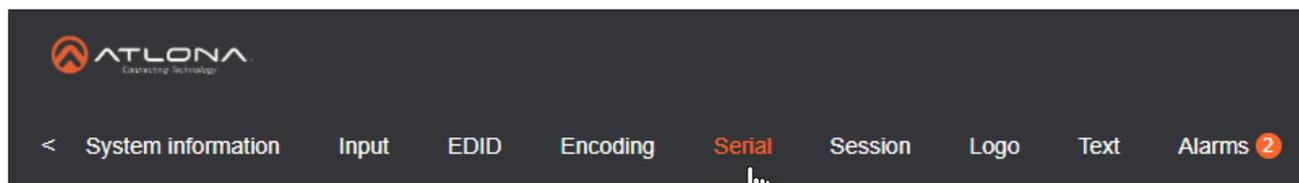
Configuring the Encoder Serial Port

The first step will be to configure the RS-232 port on the encoder to use IR. Only the **RS-232 2** port supports both RS-232 and IR. Therefore, this port must be used for IR. RS-232 port configuration is managed under the Serial page of the encoder web interface.

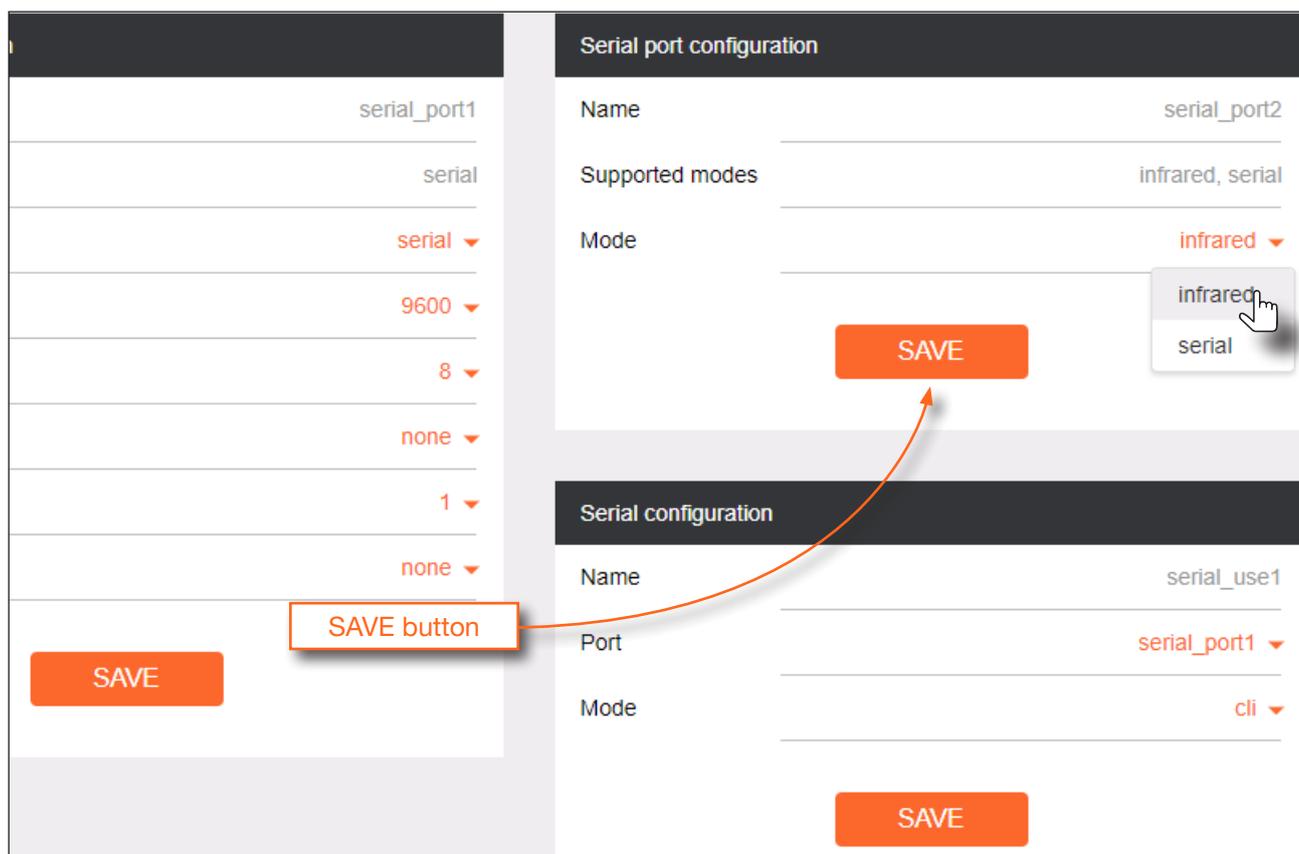
1. Enter the IP address of the encoder in the address bar of the web browser.
2. Enter the required login credentials. The default login is:

Username: admin
Password: Atlona

3. Click the **Login** button.
4. Click **Serial** in the top menu bar.



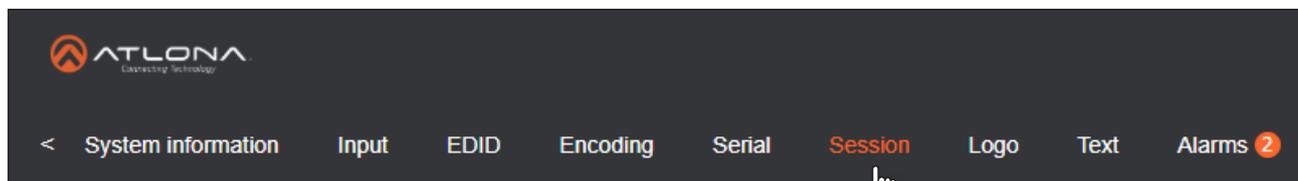
5. Locate the **Serial port configuration** window group. The **Name** field, within this window group, should read **serial_port2**. Click the **Mode** drop-down list and select **Infrared**.
6. Click the **SAVE** button to commit changes.



Configuring the Encoder Session

The next step is to assign the IR control for Serial Port 2 to the desired Session.

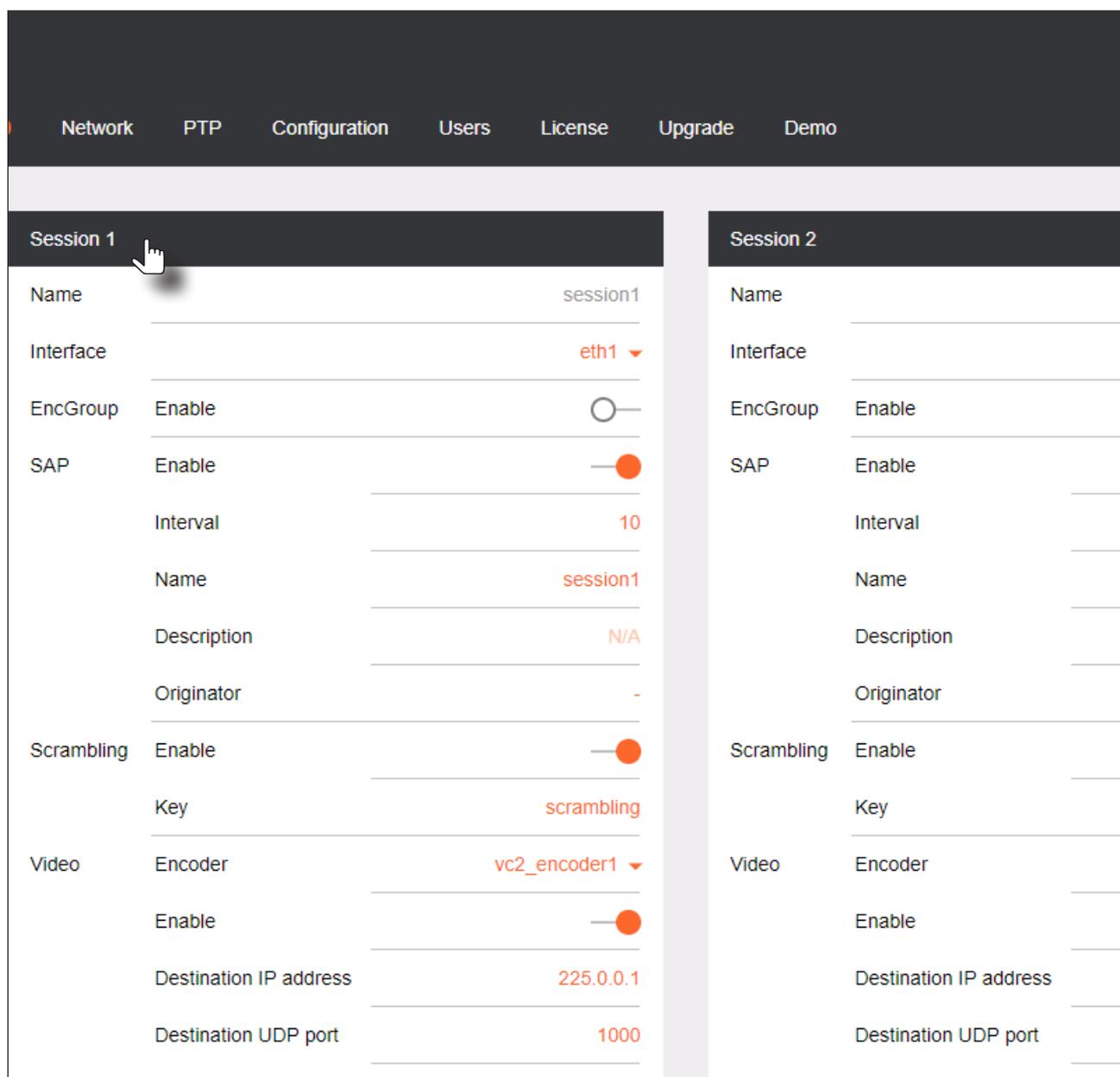
1. Click **SESSION** in the top menu bar.



2. Locate the **Session 1** window group.

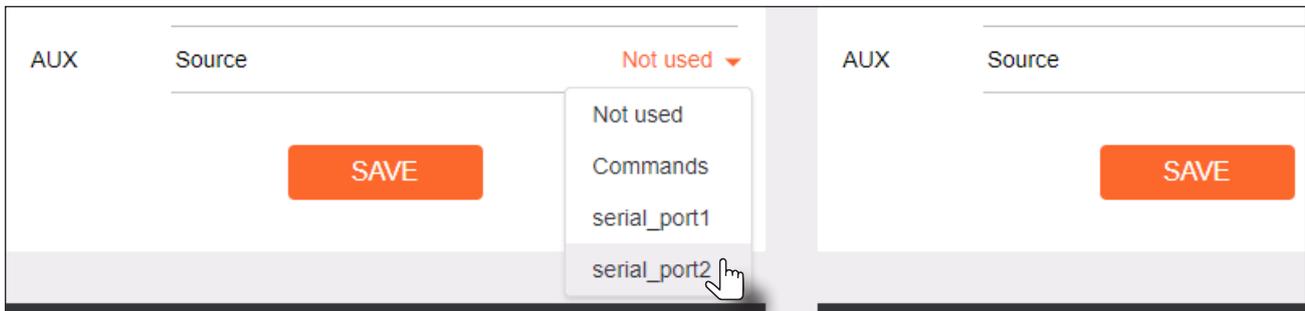


NOTE: **Session 2** can also be used with IR. However, in this example, **Session 1** will be configured.

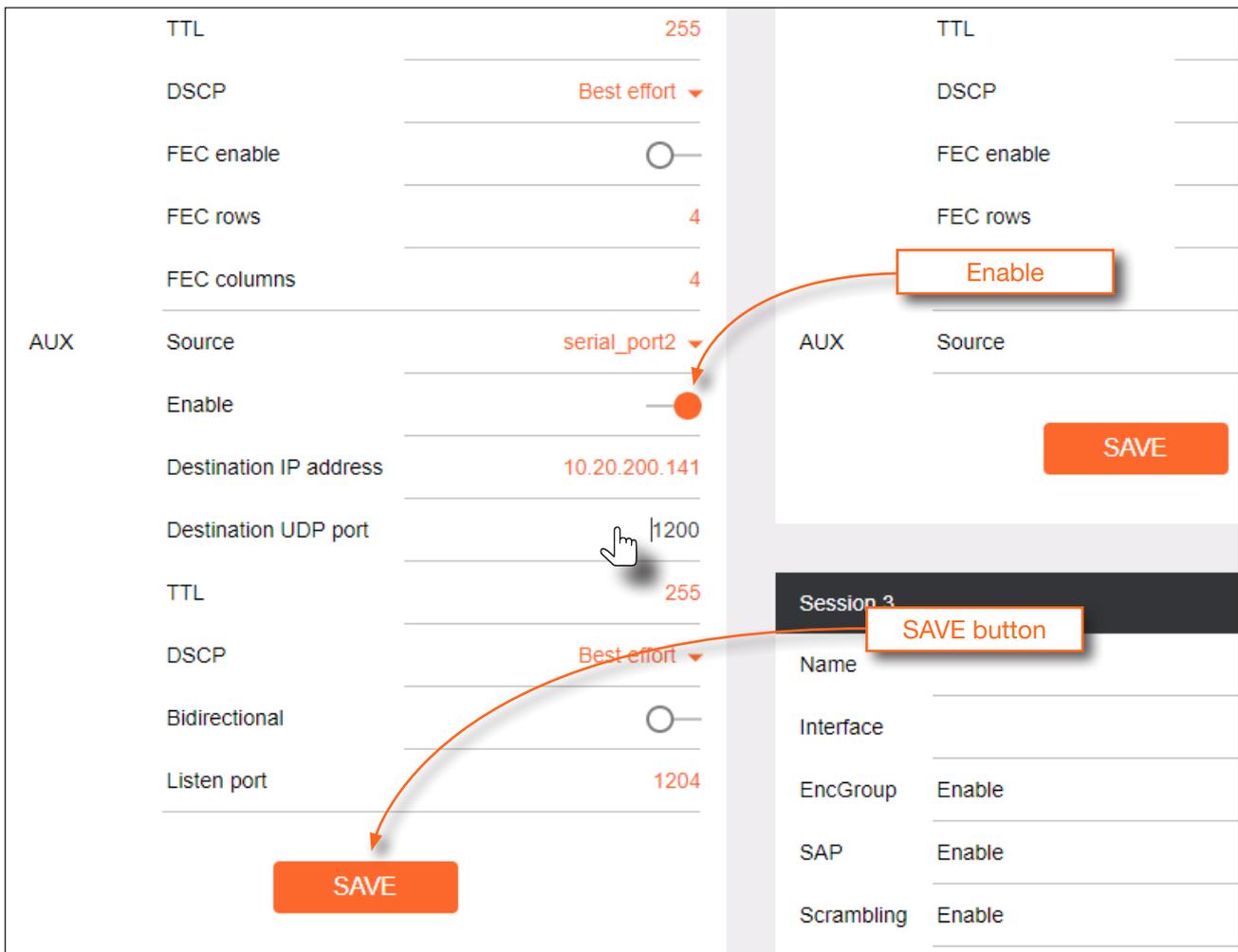


Session 1		Session 2	
Name	session1	Name	
Interface	eth1	Interface	
EncGroup	Enable	EncGroup	Enable
SAP	Enable	SAP	Enable
Interval	10	Interval	
Name	session1	Name	
Description	N/A	Description	
Originator	-	Originator	
Scrambling	Enable	Scrambling	Enable
Key	scrambling	Key	
Video	Encoder	Video	Encoder
Enable		Enable	
Destination IP address	225.0.0.1	Destination IP address	
Destination UDP port	1000	Destination UDP port	

3. Scroll down and locate the **AUX** section.
4. Click the **Source** drop-down list and select **serial_port2**.



5. Enable the auxiliary (AUX) channel by clicking the **Enable** toggle switch. When the auxiliary channel is enabled, this toggle switch will be orange.
6. Enter the IP address of the *decoder* in the **Destination IP Address** field. This is the decoder to which the IR emitter is connected. In this example, the decoder IP address is 10.20.200.141.
7. Enter the port number in the **Destination UDP Port** field.
8. Click the **SAVE** button to commit changes.

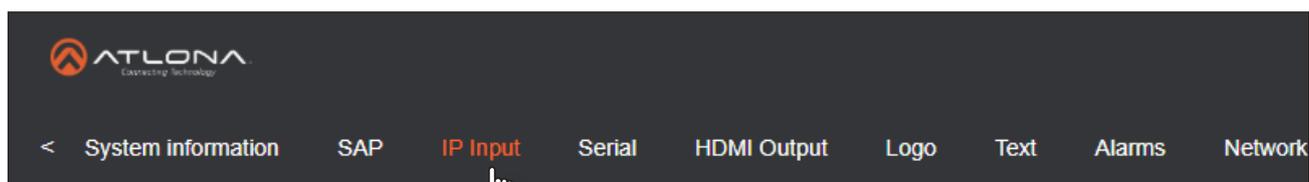


Configuring the Decoder Serial Port

1. Select the desired decoder within the **AMS Device List** window and make note of the decoder IP address.
2. Enter the required login credentials. The default login is:

Username: admin
 Password: Atlona

3. Click the **Login** button, then click **IP Input** in the top menu bar.



4. Scroll down to the **Input 5** window group.
5. Enable **Input 5** by clicking the **Enable** toggle switch. When enabled, this toggle switch will be orange.



NOTE: **Input 5** is dedicated to IR. Therefore, this input *must* be used in order for end-to-end IR to function properly.

6. Enter the port in the **Port** field. This port number must be the same port used by the encoder, and is the input of the decoder that will receive IR data.

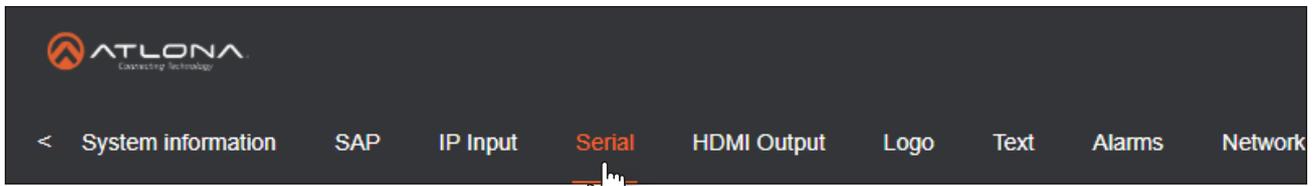


IMPORTANT: Do not change the contents of the **Multicast Address** field. Unicast mode uses the IP address of the decoder for communication. Therefore, only the port number is required.

7. Click the **SAVE** button to commit changes.

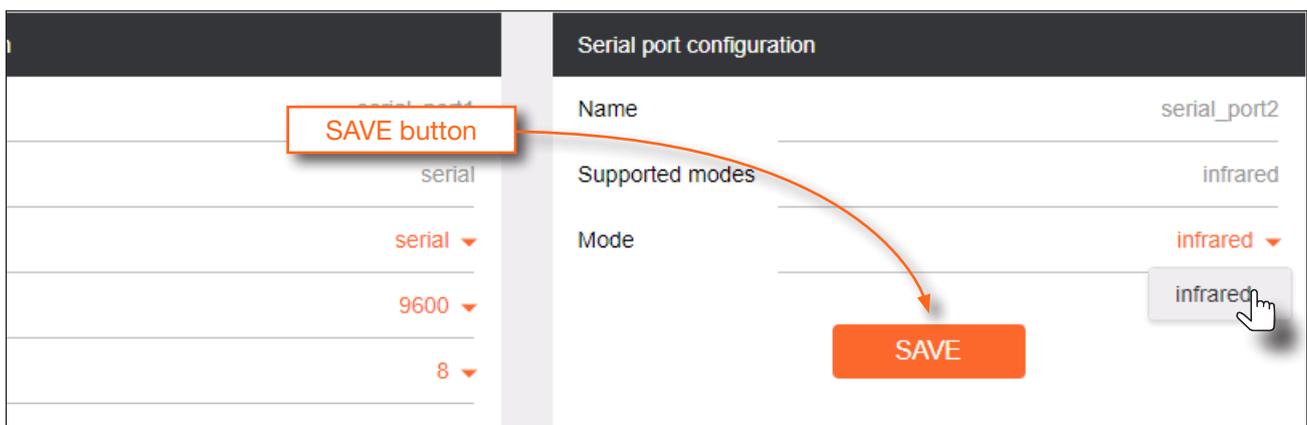


8. Click **Serial** in the top menu bar.



9. Locate the **Serial port configuration** window group. The **Name** field, within this group, should read **serial_port2**. Click the **Modes** drop-down list and select **Infrared**.

10. Click the **SAVE** button to commit changes.

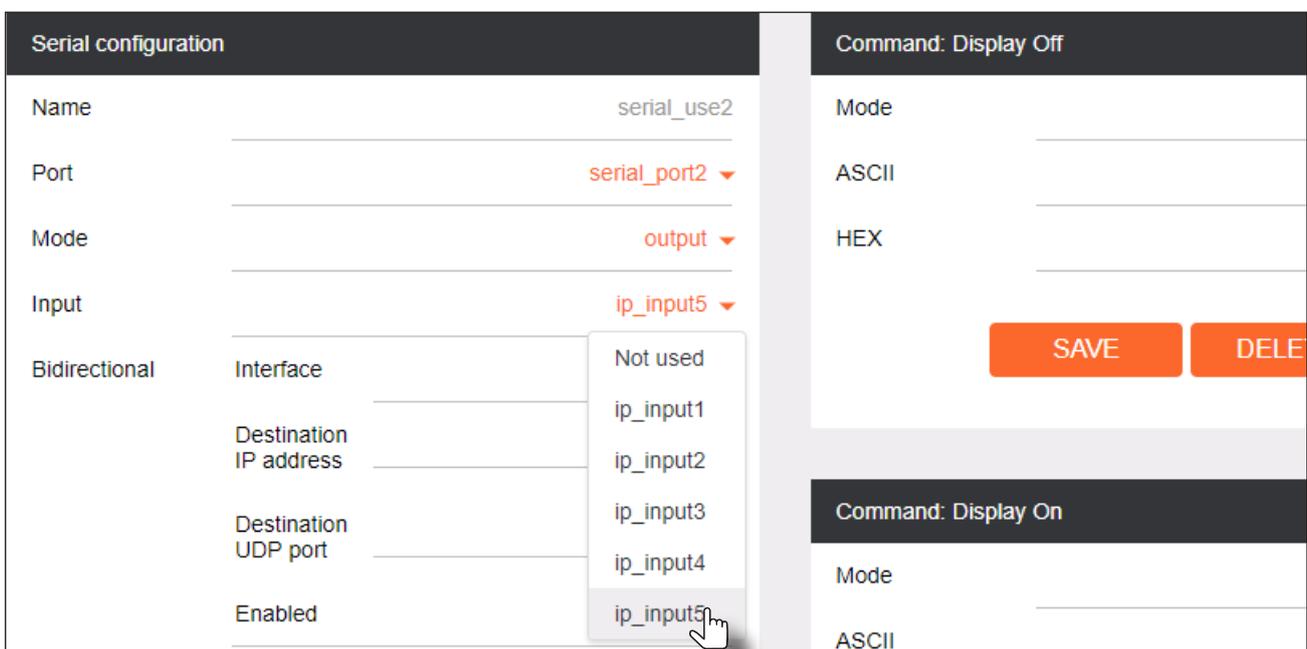


11. Scroll down the page and locate the **Serial Configuration** window group. The **Name** field, within this group, should read **serial_use2**.

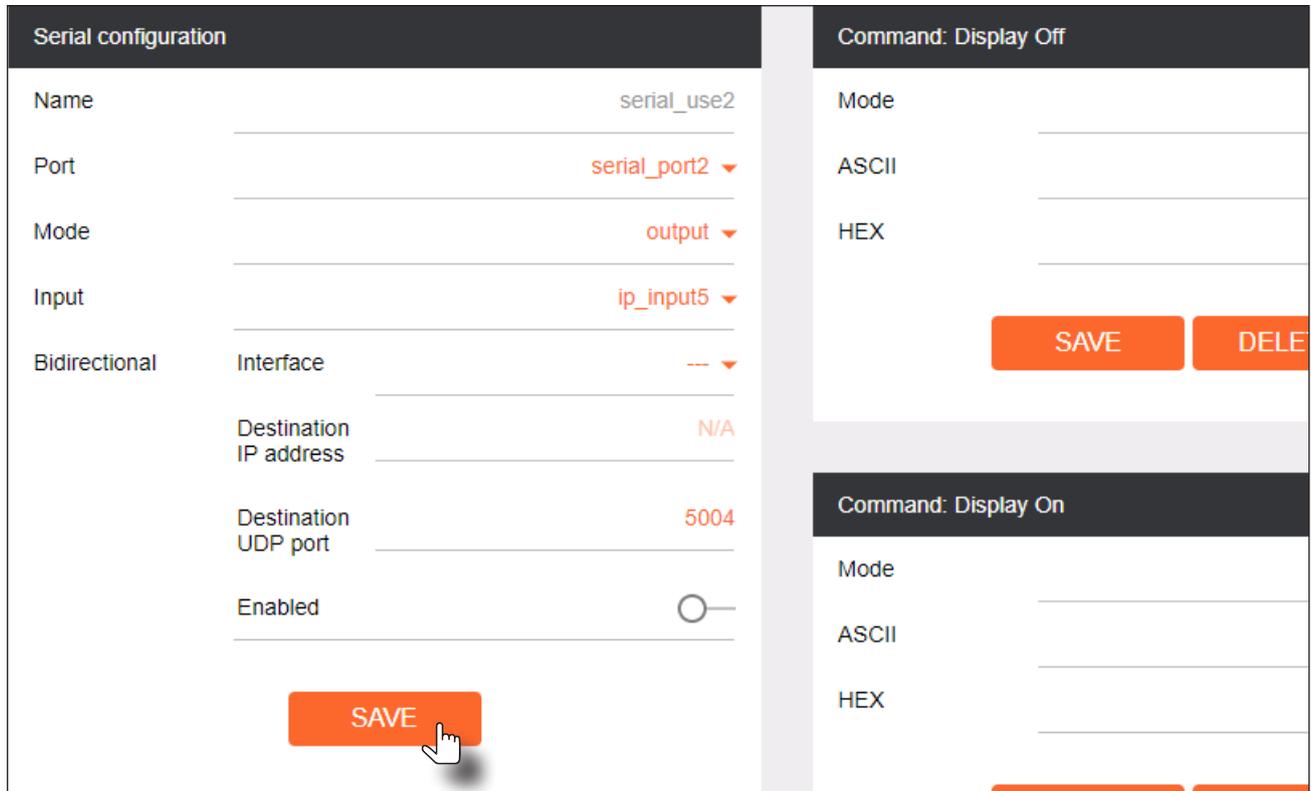
12. Click the **Port** drop-down list and select **serial_port2**.

13. Click the **Mode** drop-down list and select **output**.

14. Click the **Input** drop-down list and select **ip_input5**.



15. Click the **SAVE** button to commit changes.



The screenshot displays a configuration interface for IR Control, divided into two main sections: Serial configuration and Command configuration.

Serial configuration:

- Name: serial_use2
- Port: serial_port2
- Mode: output
- Input: ip_input5
- Bidirectional:
- Interface: ---
- Destination IP address: N/A
- Destination UDP port: 5004
- Enabled:

Command configuration:

- Command: Display Off
- Mode: _____
- ASCII: _____
- HEX: _____

Buttons: SAVE, DELETE

Command configuration (second instance):

- Command: Display On
- Mode: _____
- ASCII: _____
- HEX: _____

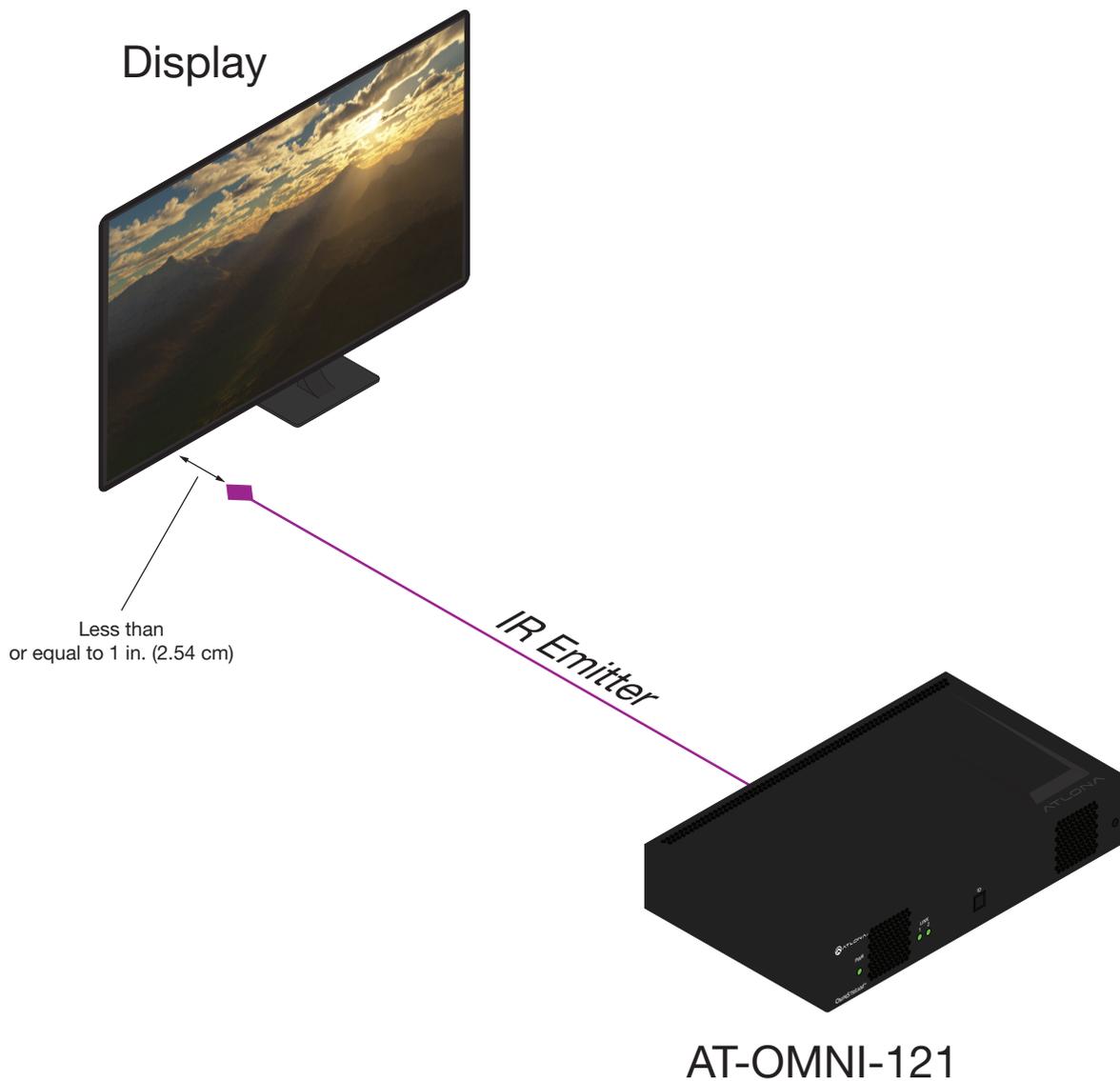
Buttons: SAVE, DELETE

A mouse cursor is shown clicking the **SAVE** button in the Serial configuration section.

Testing IR Functionality

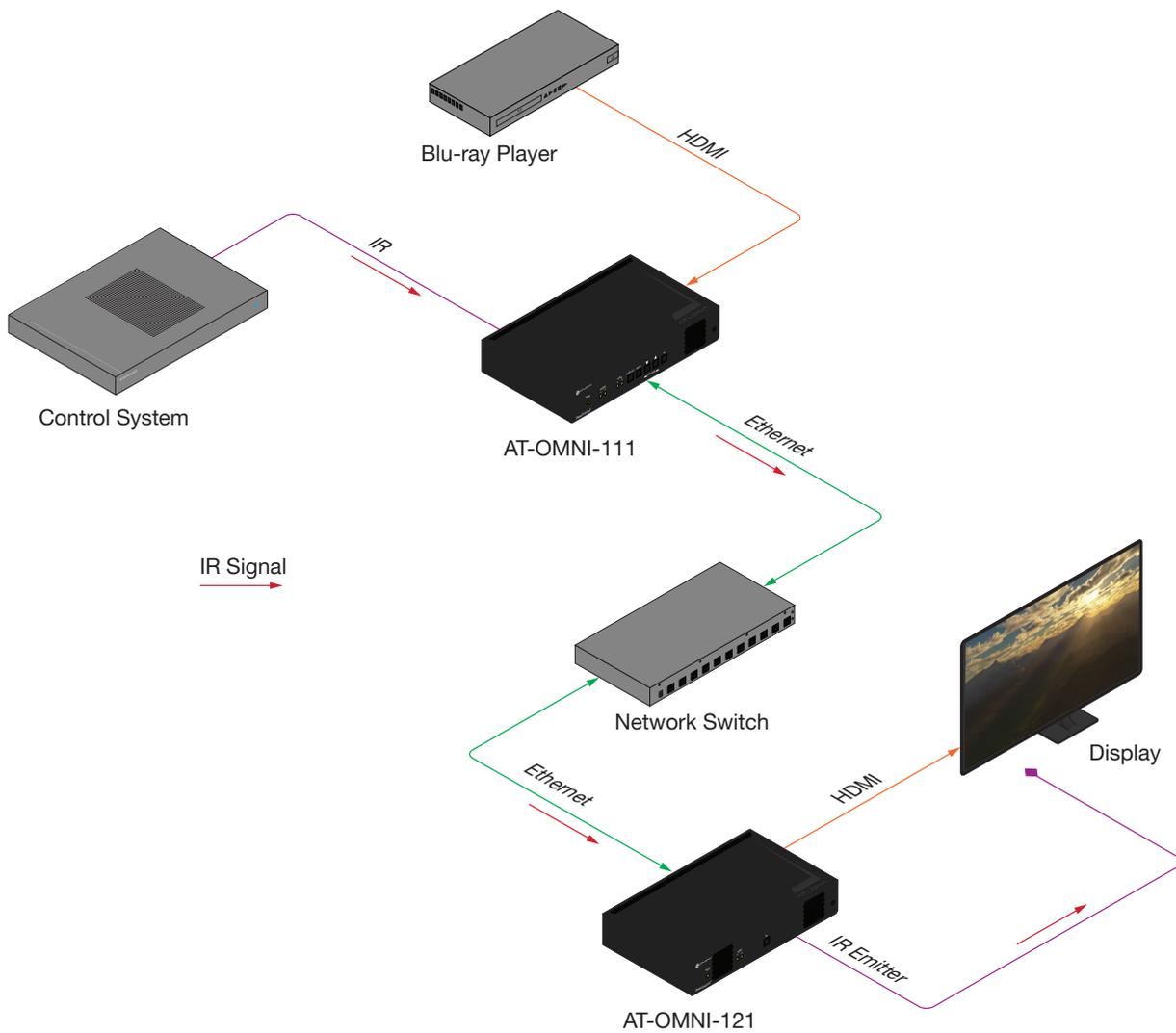
1. Point IR remote to at the IR Receiver, as shown in the diagram below.
2. The IR remote will now sent IR data to the decoder where it will be relayed to the display device.

 **IMPORTANT:** The IR lens of the emitter must be within 1 inch (2.54 centimeters) of the IR window on the display device. If this distance is exceeded, then IR functionality may fail.



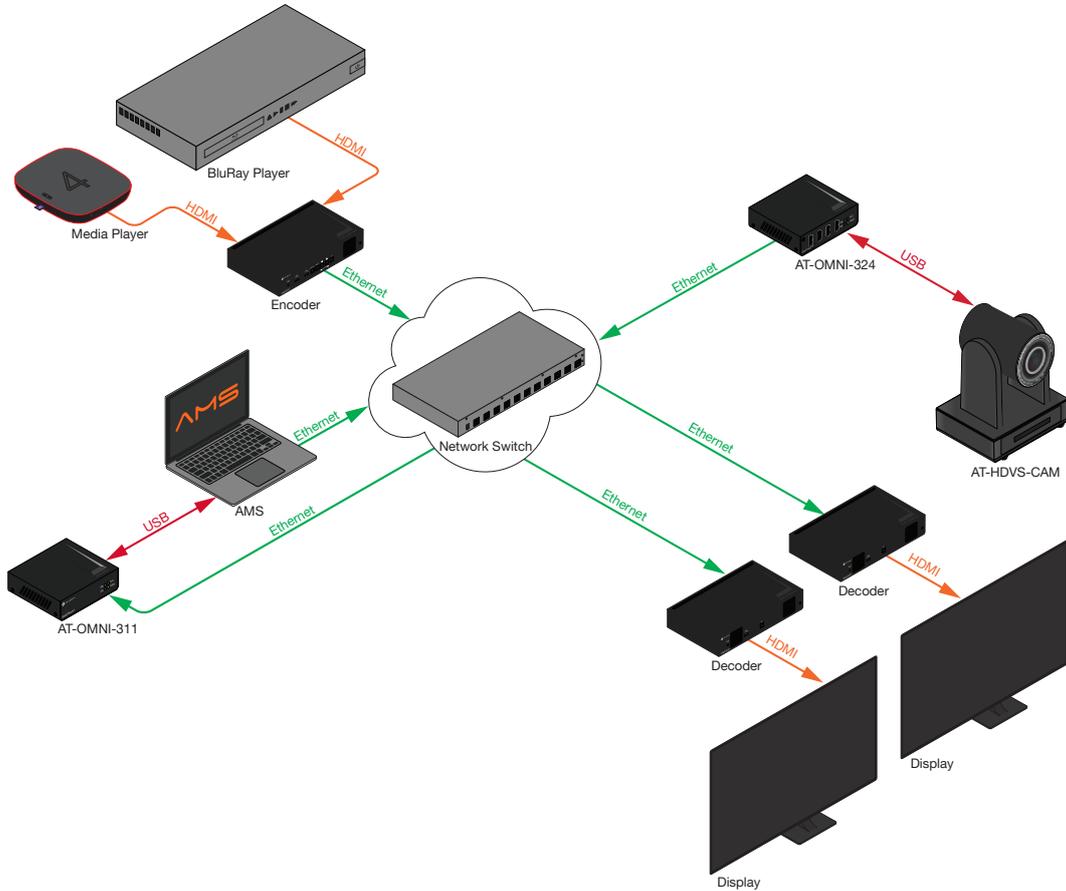
Controlling the Display using a Control System

The following steps are similar to [Controlling the Display using the Display's IR Remote](#) (page 37), except that the control system wiring should be used, instead of an IR receiver, as shown below.



USB to IP Adapter

OmniStream AT-OMNI-311 and AT-OMNI-324 provide a way to connect USB devices (such as cameras, MICs, etc) over IP.



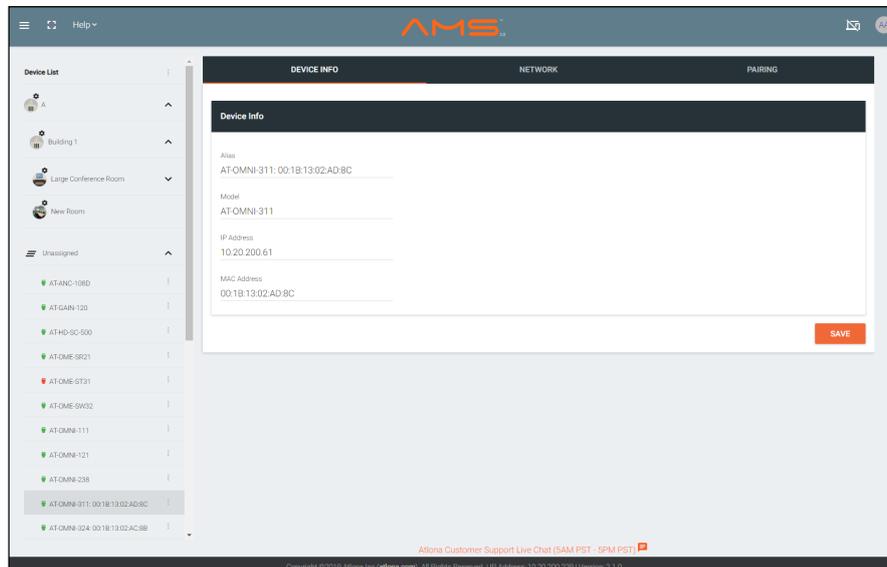
1. Find the AT-OMNI-311 and AT-OMNI-324 in the left navigation, left click the ;, and select reconnect from the drop down menu.

#	NAME	MODEL	IP	MAC	FIRMWARE	UPDATE	SITE	BUILDING	ROOM
1	AT-OMNI-112.1	AT-OMNI-112	10.20.200.123	B8-98-B0-01-A5-7F	1.2.2	Up to date	A	Building 1	Large Conference Room
	AT-OMNI-122.1	AT-OMNI-122	10.20.200.131	B8-98-B0-01-92-52	1.2.2	Up to date	A	Building 1	Large Conference Room
	AT-OMNI-521.1	AT-OMNI-521	10.20.200.133	B8-98-B0-01-89-16	1.2.2	Up to date	A	Building 1	Large Conference Room
	Velocity_Video_Wall_1	VELOCITY-VIDEO-WALL					A	Building 1	Large Conference Room
	Velocity_Video_Wall_2	VELOCITY-VIDEO-WALL					A	Building 1	Large Conference Room
	ATHDVS-200-TX	ATHDVS-200-TX	10.20.200.122	B8-98-B0-00-1C-83	2.0.02	CHECK	Not Assigned	Not Assigned	
	ATHDVS-200-RX	ATHDVS-200-RX	10.20.200.132	B8-98-B0-00-14-EC	1.1.09	CHECK	Not Assigned	Not Assigned	
	AT-ANC-108D	AT-ANC-108D	10.20.200.144	B8-98-B0-00-98-E2	1.1.01	CHECK	Not Assigned	Not Assigned	
	AT-GAIN-120	AT-GAIN-120	10.20.200.75	B8-98-B0-05-E0-33	1.0.01	CHECK	Not Assigned	Not Assigned	
	ATHD-SC-500	ATHD-SC-500	10.20.200.52	B8-98-B0-00-A9-48	1.3.39	CHECK	Not Assigned	Not Assigned	
	AT-OME-SR21	AT-OME-SR21	10.20.200.189	B8-98-B0-01-3B-E8	1.0.00	CHECK	Not Assigned	Not Assigned	
	AT-OME-ST31	AT-OME-ST31	10.20.200.62			CHECK	Not Assigned	Not Assigned	
	AT-OME-SW32	AT-OME-SW32	10.20.200.53	B8-98-B0-00-01-AE	1.0.05	CHECK	Not Assigned	Not Assigned	
	AT-OMNI-111	AT-OMNI-111	10.20.200.175	B8-98-B0-01-A3-5D	1.2.2	Up to date	Not Assigned	Not Assigned	
	AT-OMNI-121	AT-OMNI-121	10.20.200.139	00-D4-A5-21-9F-44	1.2.2	Up to date	Not Assigned	Not Assigned	
	AT-OMNI-238	AT-OMNI-238	10.20.200.188	00-1D-C1-11-FD-F6			Not Assigned	Not Assigned	

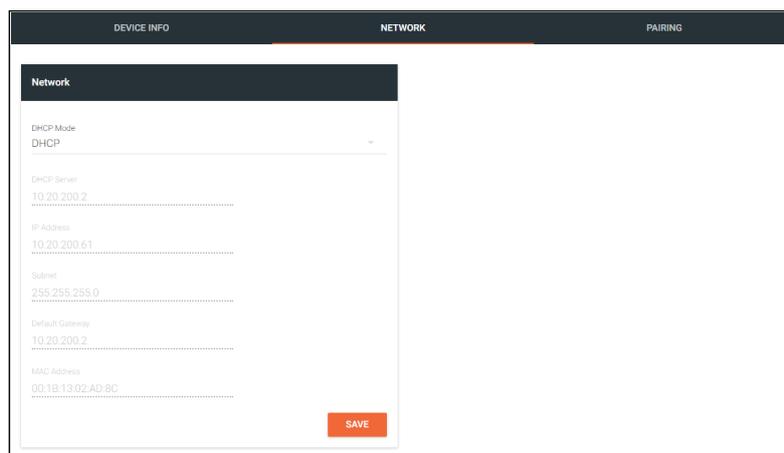
NOTE: Reconnecting the unit before adjusting it will ensure the units will be available in the pairing drop down menu.

USB to IP Adapter

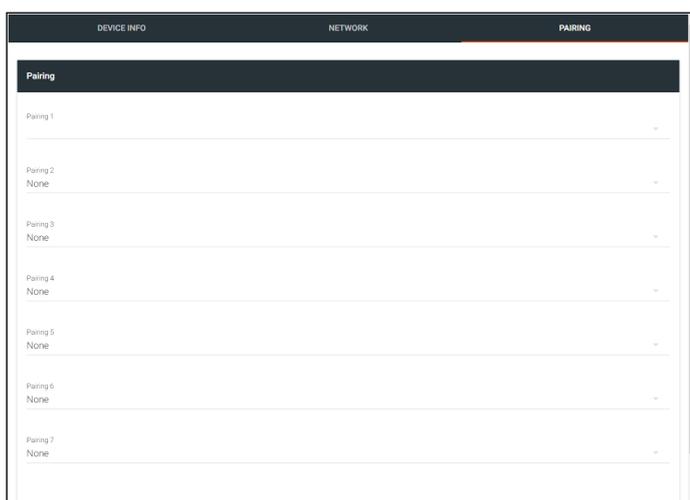
2. Select either AT-OMNI-311 or AT-OMNI-324 from the device list. Pairing can be done from either unit, so the following step will show settings updating through OmniStream 311.



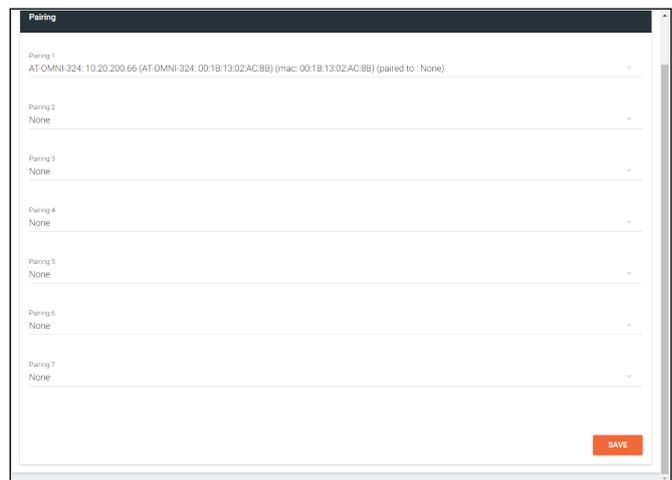
3. *Optional* The units will be set to DHCP by default. Select Network to adjust the network setting to static mode.



4. *Optional* Select Static from the DHCP Mode drop down and fill in the IP Address, Subnet, and Default Gateway. **e.g.** 192.168.1.54, 255.255.255.0, and 192.168.1.1
5. Select Pairing from the top navigation. These following steps will be the same on either the AT-OMNI-311 or AT-OMNI-324.



6. Select the unit to pair to from the drop down menu. The OmniStream 311 can pair with up to 7 devices, the OmniStream 324 can pair with only 1. It does not matter which drop down is used on the AT-OMNI-311 as it will assign it to any port.
7. Press the **SAVE** button once the device has been selected.



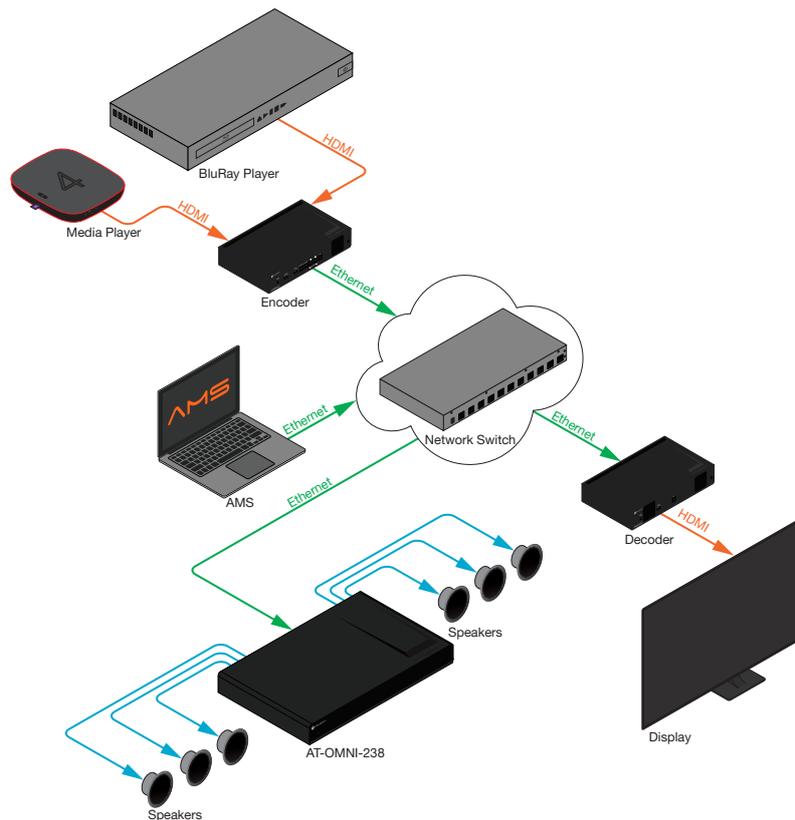
8. The devices are now paired. Repeat steps 5 to 7 for all the OmniStream 311s and OmniStream 324s.

IP to Analog Audio Bridge

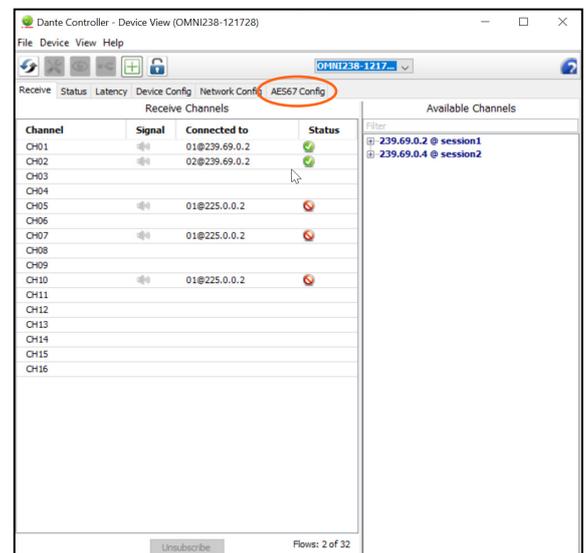
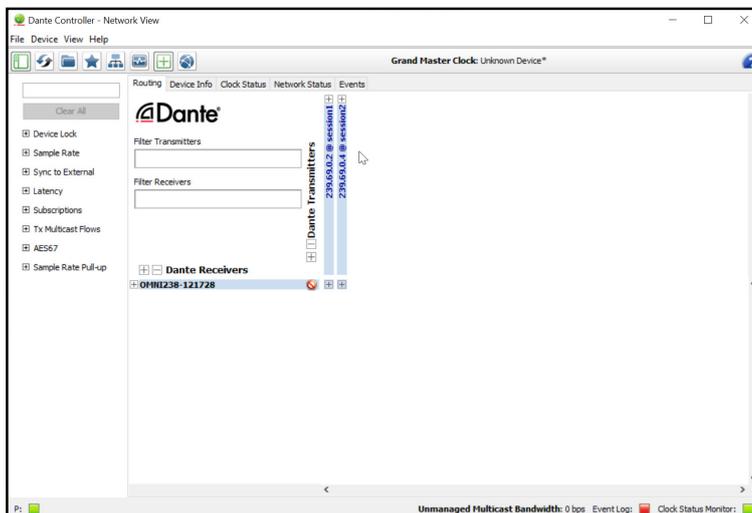
OmniStream 238 can be set up and routed using the Dante Controller. To download the software, go to <http://www.audinate.com>. The software will be found under **products > software > Dante Controller**. The download button is found on the right side of the page. Follow the instructions for downloading.

Once downloaded and installed, the AT-OMNI-238 will be automatically detected as long as the PC running Dante Controller and OmniStream 238 are on the same network.

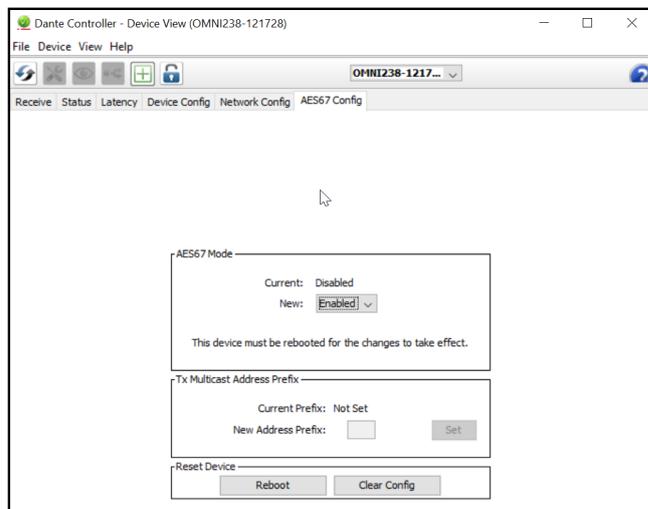
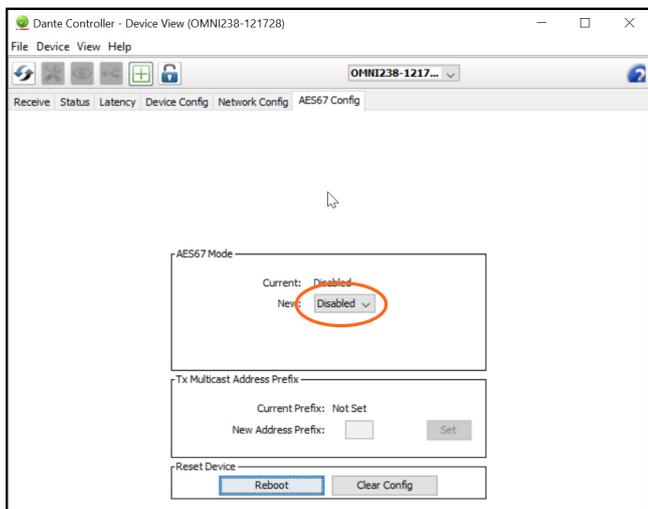
NOTE: By default the AT-OMNI-238 will have AES67 disabled and will need it enabled to route the AES67 audio from the OmniStream Encoders.



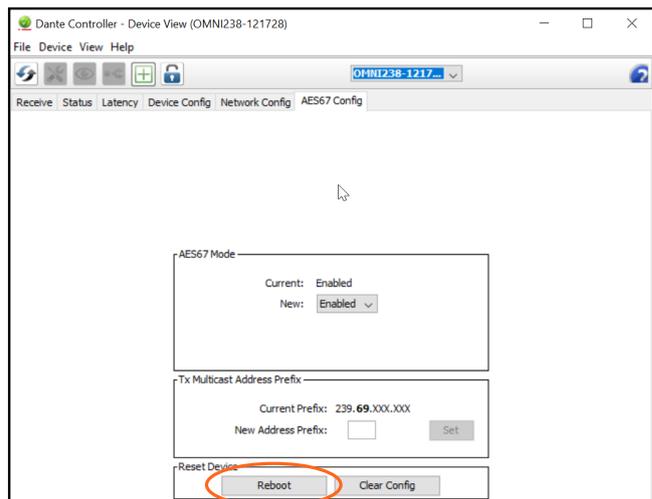
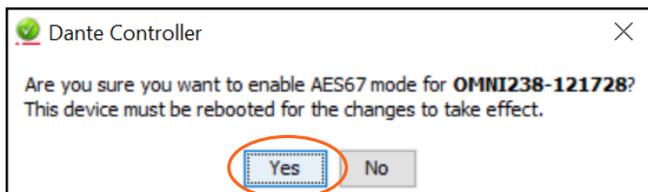
1. Open the Dante Controller application.
2. Double click the OMNI238 under the Dante Receivers. A new window will open.



3. Select AES67 Config from the middle navigation.

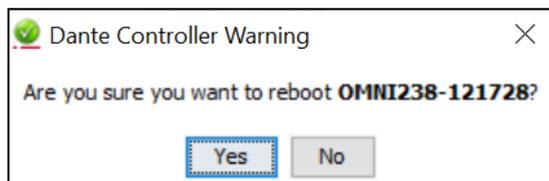


4. Select the **New:** drop down field and select Enabled. A pop up will appear.



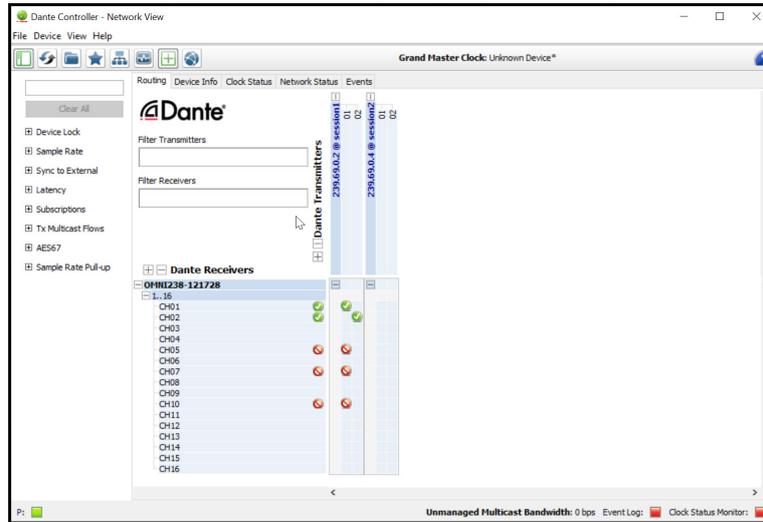
5. Select the **Yes** button to confirm the switch to AES67 enabled.

6. Press the **Reboot** button to restart the AT-OMNI-238 and finish enabling AES67. A new pop up will appear.



7. Select the **Yes** button to confirm the reboot.

The software will return to the home screen when the reboot is finished. AES67 sources will appear as source options for the AT-OMNI-238 in the routing menu once the reboot is finished.



8. Open the streams with the + buttons next to the OmniStream 238 and the multicast addresses of the Omni audio streams.
9. Select the cross section squares to route the streams. The streams will only appear as green checks when audio is passing.

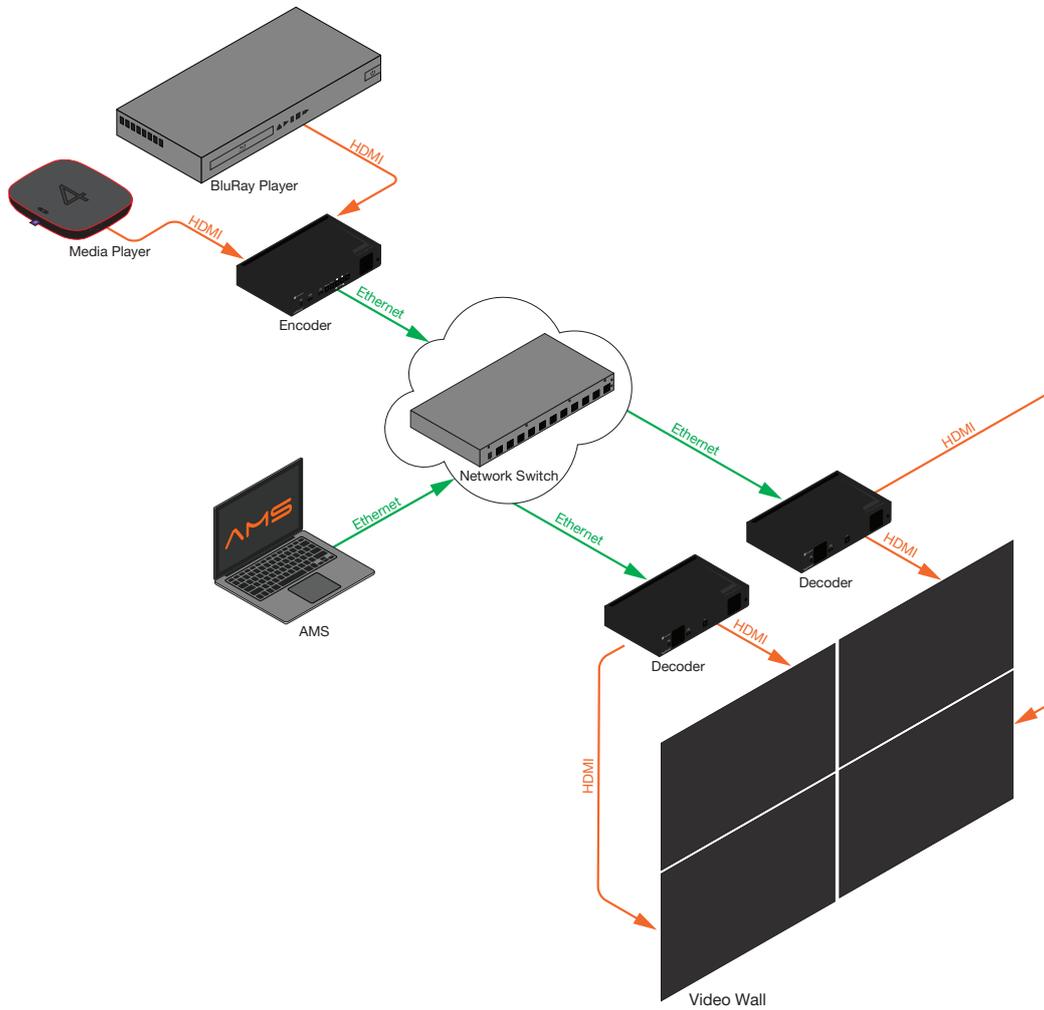


NOTE: Audio paths will only show green if there is an active audio signal passing. If there is no active audio passing the connection will show a red icon.

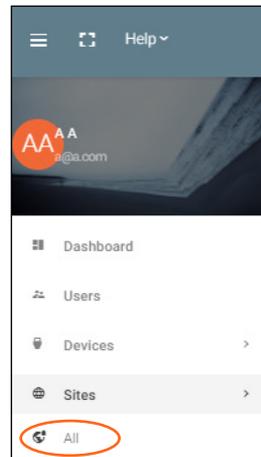
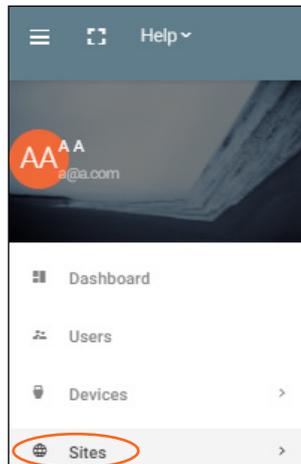
Audio routing should be complete and audio passing.

Video Walls

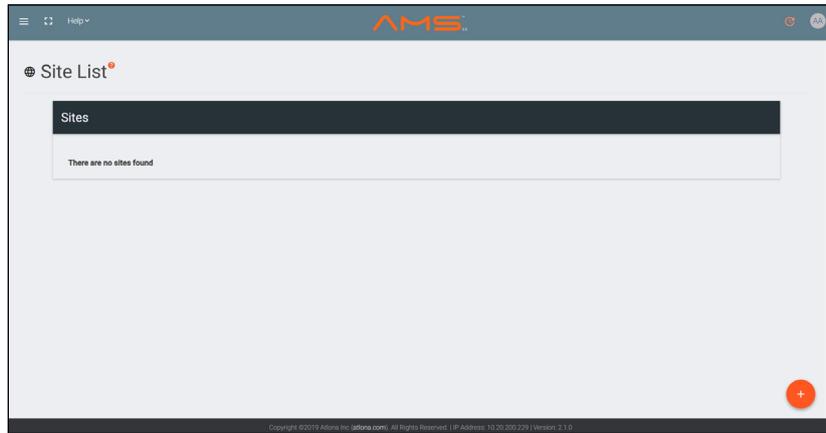
After the basic configuration of the devices is finished, the optional video wall can be set up using the room view. The following steps will provide the simplest way to set up a video wall.



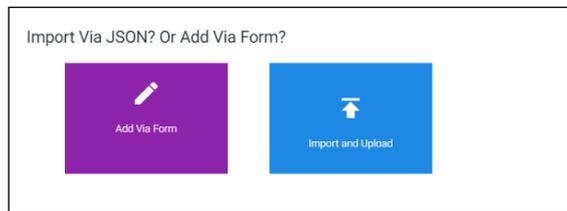
1. Select the ≡ button from the top left corner and select **Sites**.



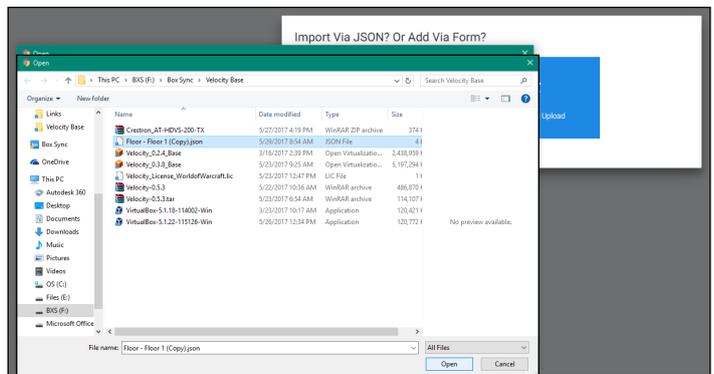
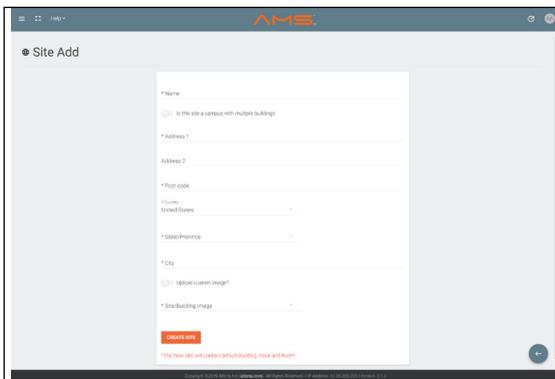
2. Select **All** from the options that becomes available. A new window will appear.



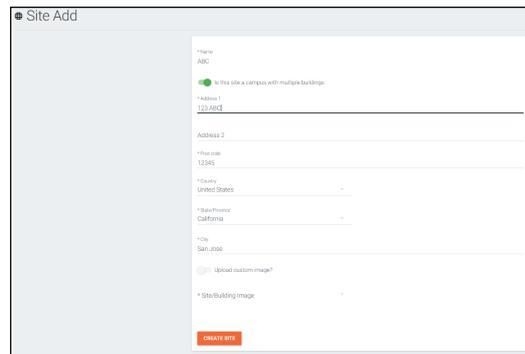
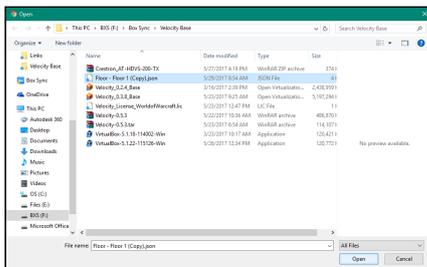
3. Press the **orange + button** in the bottom right hand corner to add a site. A pop up window will appear.



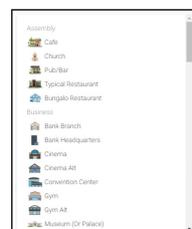
4. Select the purple **Add via Form** button for new sites or the blue **Import and Upload** button if loading a site based off a previously saved site. A new window will appear or a browse folder will open.



5. Select the site off the local computer and press open, or fill in the **Site Add** form.

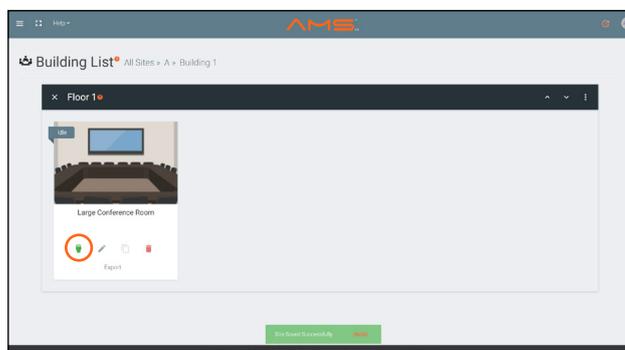


- **Name** - Usually the company name, use to identify the site AMS will be located.
- **Multiple Building** slider - Select this to start the site with two buildings instead of one.
- **Address 1 & 2, City, State/Province, Country, Post code** - Used to help determine the exact location of the site, to help when troubleshooting or if there is more than one site with the same name.
- **Upload custom image** slider - Select this option to add a custom image for the site.
- **NOTE:** Custom images must be .PNG, .JPG, .JPEG, or .BMP file types to display.
- **Site/Building image** drop down menu - Select an AMS site image.

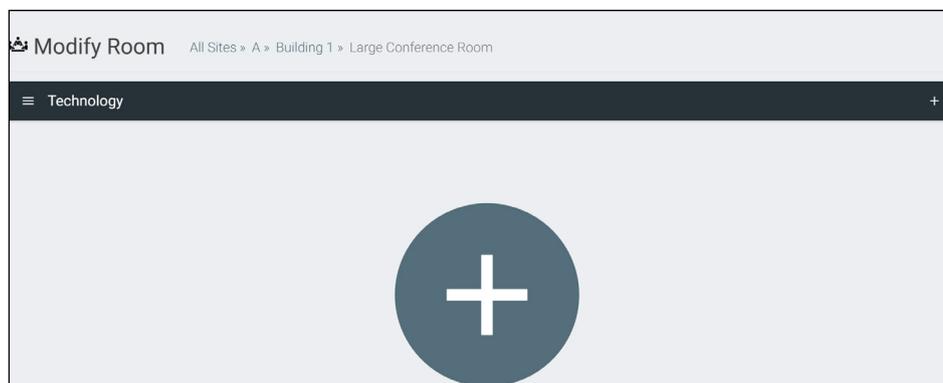


6. Press the **Create Site** button.

A new page will open.



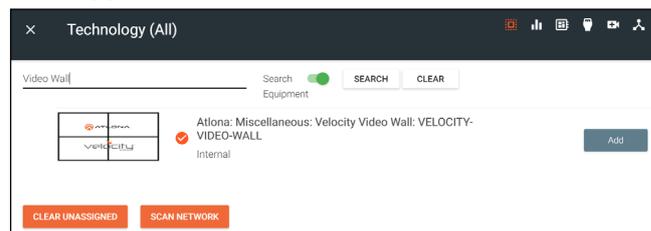
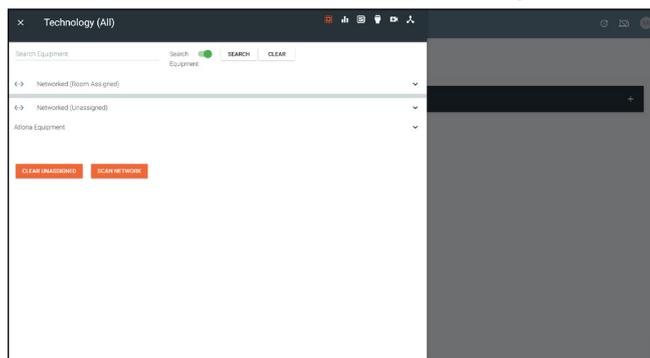
7. Select the Edit Room Technology button. A new page will open.



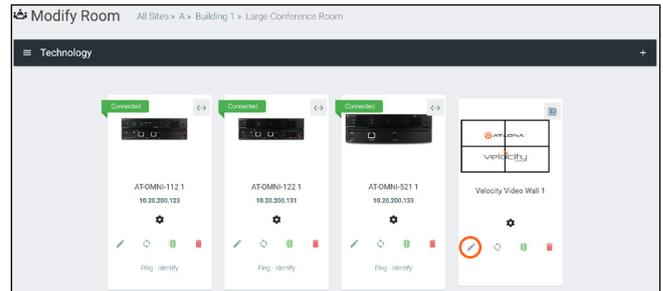
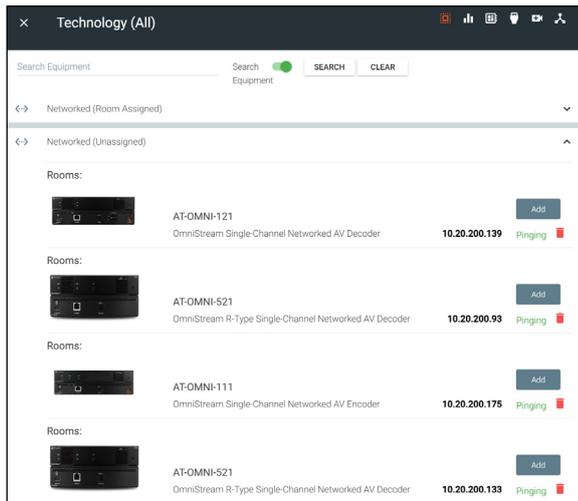
8. Press either the large + in the center or the small + in the top right corner of the Technology header. A new menu will slide open on the left side of the screen.

9. Type Video Wall into the search bar and press enter.

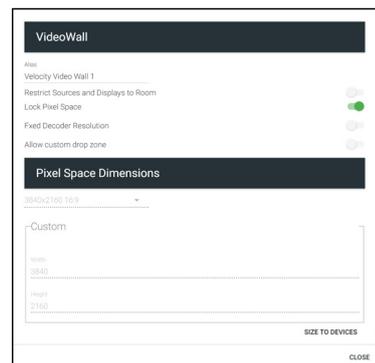
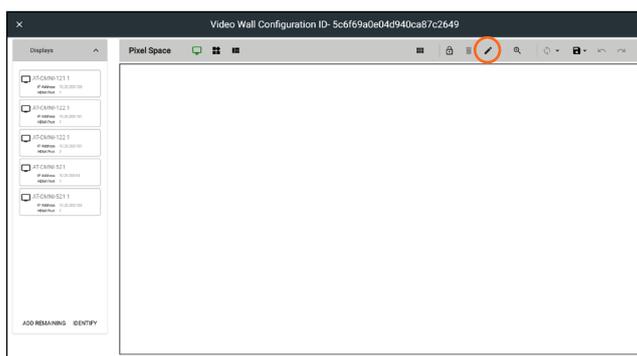
10. Select the **Add** button next to the Velocity-Video-Wall when it appears.



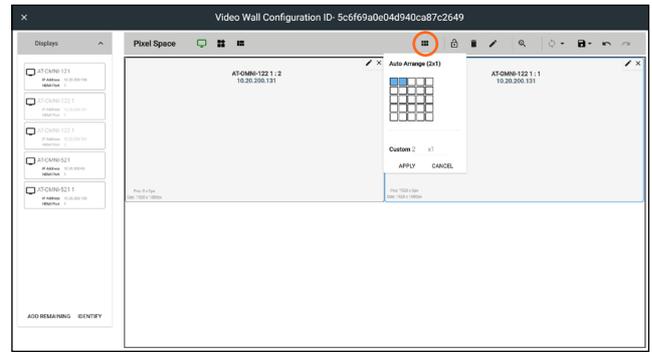
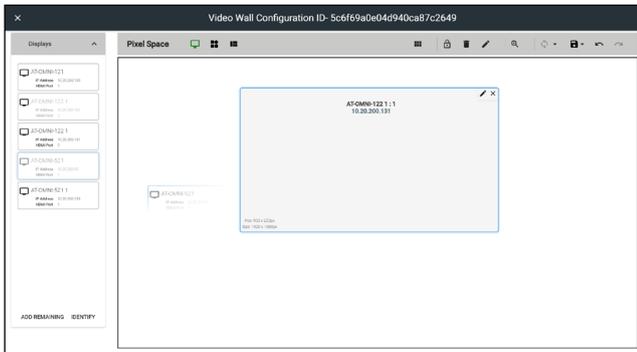
11. Press the **Clear** button located next to the search.
12. Select the Networked (Unassigned) label, this will expand the field.
13. Add all the OmniStream devices associated with the Video Wall.
14. Click outside of the menu, or select the **X** at the top to return to the room.
15. Select the **Edit** button (circled below) on the Video Wall. The Video Wall configurator screen will open.



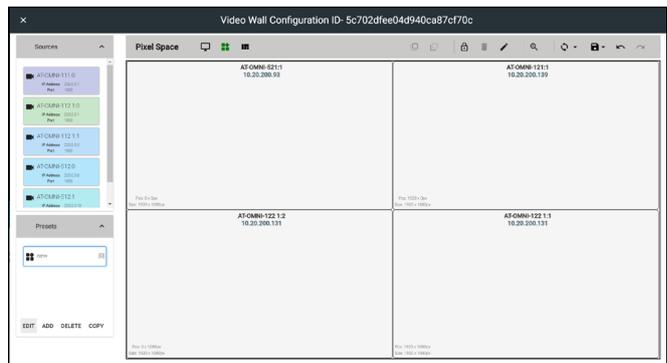
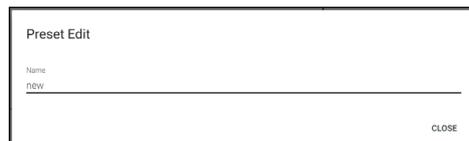
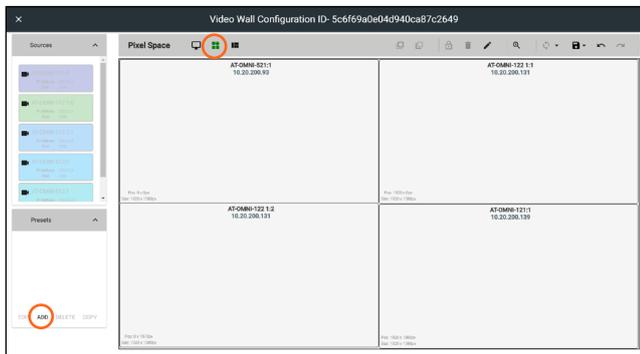
16. Select the Edit button. A new pop up window will appear.
 - **Alias** - Provide an Alias for the Video Wall.
 - **Lock Pixel Space** - This locks and unlocks the resolution of the video wall. By default this is enabled. Disable to select a custom size and resolution in the Pixel Space Dimensions area.
 - **Allow custom drop zones** slider - Select this to allow the creation of custom drop zones.
 - **Pixel Space Dimensions** - When unlocked, the resolution of the video wall can be selected here.



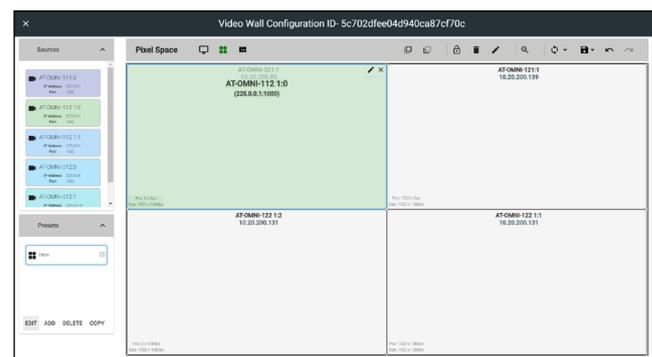
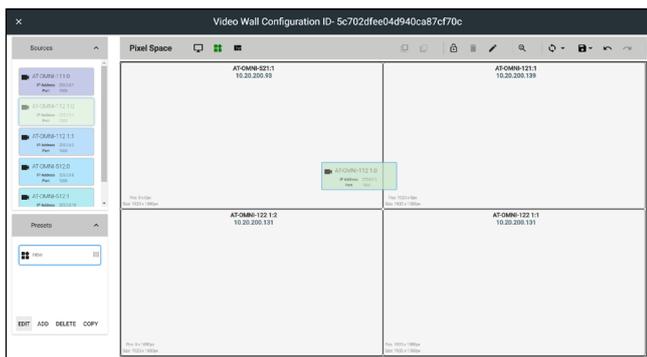
17. Double click or drag and drop the wanted decoders from the Displays area. Only drag and drop the decoders that will be used for the video wall.
18. Auto arrange the displays by dragging a mouse over the grid to the correct display layout and left clicking.



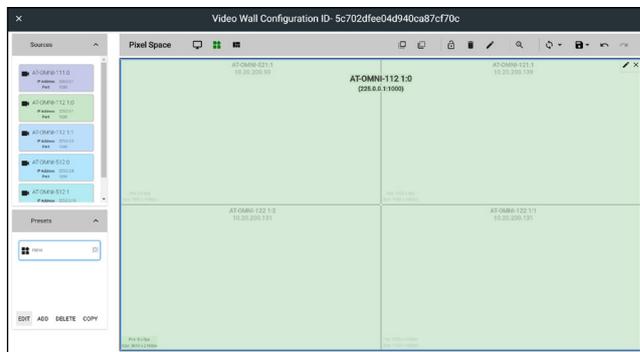
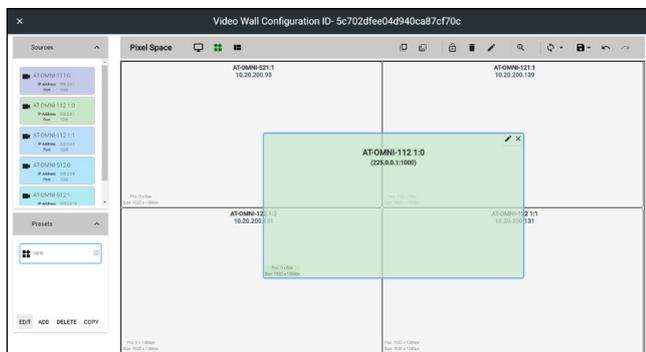
19. Select the **Preset** button (circled below) to have sources and presets become available for selection and adding.
20. The sources will not be selectable until a preset has been added, press the **ADD** button (circled below) in the Presets field. A pop up will appear.
21. Name the preset and press the enter key to close or select the close button.
22. Add as many presets as needed.



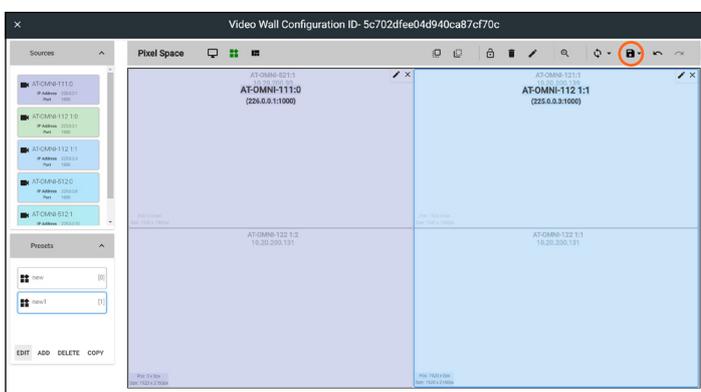
23. Select the source and drag and drop it into the decoders. The source will appear over one of the displays as a different colored square.



24. Select the source square and arrange it over the decoders it should display on. Placing it centered over intersecting lines will have it fill up all the connected decoders.



25. Repeat for each configuration needed.



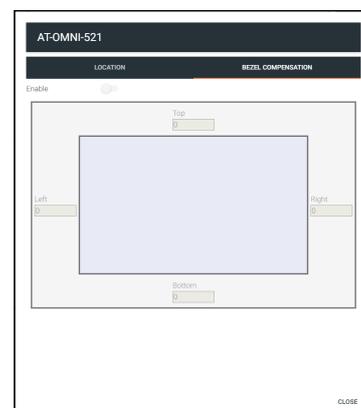
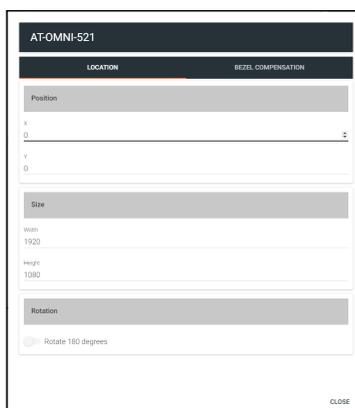
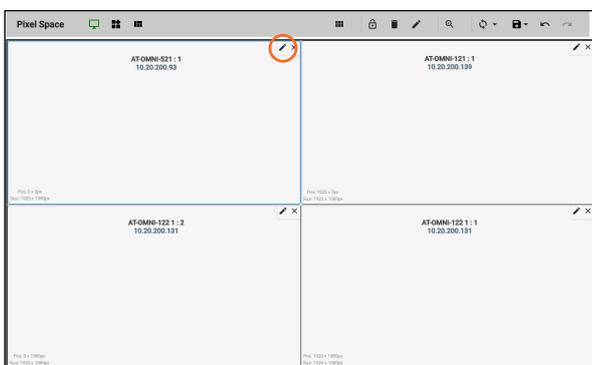
- NOTE:** The preset being currently set is highlighted in blue on the left.
- NOTE:** Multiple sources can be used in a preset, each will show up in different colors.

If the video wall picture is satisfactory, continue with step 26. If picture adjustment is needed to compensate for the display's bezel, continue to step 27.

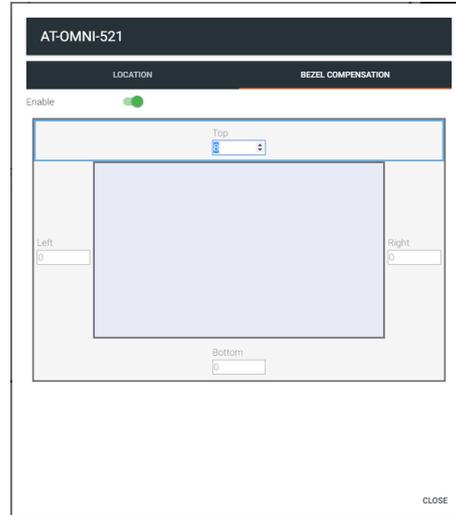
26. Select the **save** button (circled above) and exit out of the configuration screen once complete.

27. Select the **edit** button (circled below) on the top right of the display field. A pop up will appear.

28. Select the Bezel Compensation tab.



29. Select the Enable slider to allow for bezel compensation. The bezel fields will unlock.
30. Type or use the arrows to adjust the bezel pixel size in each area that requires compensation. e.g. If the display is in the top left of the video wall, the right and bottom bezel should be compensated for.



NOTE: If wanting to adjust the bezel in a format other than pixel, return to the device view within the device list from configuration and open the HDMI OUTPUT tab. Scroll to the under the Video Wall slider and select the unit type for adjustment (Pixels, Millimeters, or Inches). Select Bezel Compensation from the Edge Compensation drop down and then enter the correct amount, before pressing the save button.

