



## Luxul Configuration

### Single and Multiple Switches

The EVO-IP HDMI over IP System has been tested and confirmed to work with Luxul AMS and XMS Switches. Below are screenshots showing the configuration needed to get the system up and running. These have been tested on Luxul switches with FW 4.0.8 and 4.1.1 installed.

### Single Switch Configuration:

1. Enable IGMP Snooping by going to: Configuration->IPMC->IGMP Snooping->Basic Configuration. Save the setting once finished.
2. Disable Unregistered IPMCv4 Flooding
3. Enable Fast Leave on all ports

NOTE: When using a control system, for best results ensure the port that is connected to an external (outside of EVO-IP) network is selected as the Router Port.

The screenshot shows the Luxul web interface for configuration. The top left has the Luxul logo and tagline 'Simply Connected'. The top right shows 'Model: XMS-2624P' and 'Firmware Version: v4.0.8'. A navigation menu on the left includes 'Configuration', 'Quick Setup', 'Green Ethernet', 'Thermal Protection', 'Ports', 'DHCP', 'Security', 'Aggregation', 'Loop Protection', 'IPMC Profile', 'MVR', 'IPMC', 'IGMP Snooping', 'Basic Configuration', 'VLAN Configuration', 'Port Filtering Profile', 'MLD Snooping', 'LLDP', 'MAC Table', 'Voice VLAN', 'QoS', 'Mirroring', 'UPnP', 'GVRP', 'sFlow', 'UDLD', 'Monitor', 'Quick Setup', and 'Green Ethernet'. The main content area is titled 'IGMP Snooping Configuration' and is divided into two sections: 'Global Configuration' and 'Port Related Configuration'. The 'Global Configuration' section has a table with the following data:

Global Configuration	
Snooping Enabled	<input checked="" type="checkbox"/>
Unregistered IPMCv4 Flooding Enabled	<input type="checkbox"/>
IGMP SSM Range	232.0.0.0 / / 8
Leave Proxy Enabled	<input type="checkbox"/>
Proxy Enabled	<input type="checkbox"/>

The 'Port Related Configuration' section has a table with the following data:

Port	Router Port	Fast Leave	Throttling
*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<>
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited

1. Next Add and enable an IGMP Snooping VLAN Configuration by going to Configuration->IPMC->IGMP Snooping->VLAN Configuration.

- Click on **Add New IGMP VLAN**
- Provide **VLAN ID** (Shown below as 1)
- Check **Snooping Enabled**
- Save the setting once finished.

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Model: AMS-1208P  
Firmware Version: v4.0.0

### IGMP Snooping VLAN Configuration

Start from VLAN 1 with 20 entries per page.

Delete	VLAN ID	Snooping Enabled	Querier Election	Querier Address	Compatibility	PRI	RV	QI (sec)	QRI (0.1 sec)	LLQI (0.1 sec)	URI (sec)
<input type="checkbox"/>	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.0.0.0	IGMP-Auto	0	2	125	100	10	1

**Add New IGMP VLAN** **Save** **Reset**

\* for best results and to prevent you network from being flooded, enter the IP address of the EVOIPCTL1 control box in the Querier Address field and click save.

3. To make sure you switch settings are saved and come up after power is cycles, go to Administration->Configuration-> Save Startup Config, then click on Save Configuration.

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### Save Running Configuration to startup-config

Please note: The generation of the configuration file may be time consuming, depending on the amount of non-default configuration.

**Save Configuration**

## Multi-Switch Configuration

The EVO-IP HDMI over IP System has been tested and confirmed to work with Luxul AMS and XMS Switches. Below are two methods and screenshots showing the configuration needed to get the system up and running with multiple switches.

### Setting Up Core/Extended Switches

For static setups that do not require switching of inputs (transmitters) and outputs (receivers) across different switches but still would like to maintain the control and remote monitoring capabilities of the system. Depending on the resolution and settings of the source on the transmitter, bitrate can vary between 250Mbps to 850Mbps (4K and HDR applications) when set to **AUTO** on the **TX Speed** setting in **Setup**. If additional bandwidth is needed based on your installation or you have experiencing issues, see the **Create an Aggregate Link** section below.

NOTE: The **TX SPEED** setting can also be adjusted and fixed from 10Mbps to 200Mbps

### Core Switch

1. Enable IGMP Snooping and disable IPMCv4 Flooding by going to: Configuration->IPMC->IGMP Snooping->Basic Configuration. Save the setting once finished.

The screenshot shows the Luxul web interface for an XMS-2624P switch. The left sidebar contains a navigation menu with categories like Configuration, Monitor, and Green Ethernet. The main content area is titled "IGMP Snooping Configuration" and is divided into two sections: "Global Configuration" and "Port Related Configuration".

**Global Configuration**

Setting	Value
Snooping Enabled	<input checked="" type="checkbox"/>
Unregistered IPMCv4 Flooding Enabled	<input type="checkbox"/>
IGMP SSM Range	232.0.0.0 / 8
Leave Proxy Enabled	<input type="checkbox"/>
Proxy Enabled	<input type="checkbox"/>

**Port Related Configuration**

Port	Router Port	Fast Leave	Throttling
*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<>
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited
7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	unlimited

2. Next Add and enable an IGMP Snooping VLAN Configuration by going to Configuration->IPMC->IGMP Snooping->VLAN Configuration.

- Click on **Add New IGMP VLAN**
- Provide **VLAN ID** (Shown below as **1**)
- Check **Snooping Enabled**
- Under **Querier Address**, enter the IP address of the Control Box
- For **Compatibility**, select **IGMPv2** from the dropdown menu
- Save the setting once finished

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Model: AMS-1208P  
Firmware Version: v4.0.6

### IGMP Snooping VLAN Configuration

Start from VLAN 1 with 20 entries per page.

Delete	VLAN ID	Snooping Enabled	Querier Election	Querier Address	Compatibility	PRI	RV	QI (sec)	QRI (0.1 sec)	LLQI (0.1 sec)	URI (sec)
<input type="checkbox"/>	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.0.0.0	IGMP-Auto	0	2	125	100	10	1

1 Add New IGMP VLAN  
2  
3  
4 Save

3. To make sure you switch settings are saved and come up after power is cycles, go to **Administration->Configuration-> Save Startup Config**, then click on **Save Configuration**.

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### Save Running Configuration to startup-config

Please note: The generation of the configuration file may be time consuming, depending on the amount of non-default configuration.

Save Configuration

## Extended Switch(es)

When setting up an additional switch, it is important to change the default IP address of the switches that come AFTER the Core Switch so that there is not an IP conflict.

## Change Switch IP Address

1. Go to Configuration
2. Quick Setup
3. IP->IP Interfaces
4. Change the IP address provided in the IPv4 field
5. Click Save
6. To make sure you switch settings are saved and come up after power is cycles, go to **Administration->Configuration-> Save Startup Config**, then click on **Save Configuration**.

## Enable IGMP Snooping

1. Enable IGMP Snooping by going to: Configuration->IPMC->IGMP Snooping->Basic Configuration. Save the setting once finished.

The screenshot shows the Luxul web interface for an AMS-1208P switch. The left sidebar contains a navigation menu with categories like Configuration, Ports, Security, and IPMC. The main content area is titled 'IGMP Snooping Configuration' and is divided into two sections: 'Global Configuration' and 'Port Related Configuration'.

**Global Configuration**

Snooping Enabled	<input checked="" type="checkbox"/>
Unregistered IP/MCv4 Flooding Enabled	<input type="checkbox"/>
IGMP SSM Range	232.0.0.0   8
Leave Proxy Enabled	<input type="checkbox"/>
Proxy Enabled	<input type="checkbox"/>

**Port Related Configuration**

Port	Router Port	Fast Leave	Throttling
1	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
2	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
3	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
4	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
5	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
6	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
7	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
8	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
9	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
10	<input type="checkbox"/>	<input type="checkbox"/>	unlimited
11	<input type="checkbox"/>	<input type="checkbox"/>	unlimited

2. Next Add and enable an IGMP Snooping VLAN Configuration by going to Configuration->IPMC->IGMP Snooping->VLAN Configuration.

- Click on **Add New IGMP VLAN**
- Provide **VLAN ID** (Shown below as **1**)
- Check **Snooping Enabled**
- Under **Querier Address**, enter the IP address of the **CORE SWITCH**
- For **Compatibility**, select **IGMPv2** from the dropdown menu
- Save the setting once finished.

**LUXUL**  
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Model: AMS-1208P  
Firmware Version: v4.0.6

## IGMP Snooping VLAN Configuration

Start from VLAN 1 with 20 entries per page.

Delete	VLAN ID	Snooping Enabled	Querier Election	Querier Address	Compatibility	PRI	RV	QI (sec)	QRI (0.1 sec)	LLQI (0.1 sec)	URI (sec)
<input type="checkbox"/>	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.0.0.0	IGMP-Auto	0	2	125	100	10	1

**Add New IGMP VLAN** Save Reset

3. To make sure you switch settings are saved and come up after power is cycles, go to **Administration->Configuration-> Save Startup Config**, then click on **Save Configuration**.

**LUXUL**  
Simply Connected

## Save Running Configuration to startup-config

Please note: The generation of the configuration file may be time consuming, depending on the amount of non-default configuration.

**Save Configuration**

## Creating an Aggregated Link

If you find you are having issues with higher resolution sources in systems that rely on switching sources, creating an aggregated link will help achieve higher bandwidth capacity when going between switches. This is only dependent on the model of switch you are using. Check the manufacturers features and specifications to ensure this is possible.

1. Within the Luxul GUI of the first switch, go to **Configuration->Aggregation->Static**
2. Select which ports you wish to aggregate to a **Group ID**.
3. Click **Save** button once finished.
4. Repeat for additional switches within the system.

Locality	Group ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Normal	<input type="checkbox"/>	<input type="checkbox"/>																								
Global	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																							
Global	2	<input type="checkbox"/>	<input type="checkbox"/>																								