



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.

LUXUL Simply Connected							
Configuration	IGI	/IP Sno	oping	Configur	ation		
Thermal Protection		Global Configuration					
Ports •	Snoor	Global Configuration Snooping Enabled Invarienced IRMCv4 Electrics Enabled					
DHCP	31100	Snooping Enabled Jnregistered IPMCv4 Flooding Enabled					
Security •	Unreg	Unregistered IPMCv4 Flooding Enabled					
Aggregation F	IGMP	Integrated IPMCv4 Flooding Enabled IMP SSM Range 232.0.0.0					
Loop Protection	10mil	Inregistered IPMCv4 Flooding Enabled SMP SSM Range 232.0.0					
IPMC Profile	Leave	Proxy Enabled					
MVR	Provv	Enabled					
IPMC V	FIOXy	Litableu					
Rasis Configuration	_						
VI AN Configuration	Po	rt Rela	ted Col	nfiguratio	n		
Port Filtering Profile							
MLD Snooping	Port	Router Port	Fast Leave	Throttling			
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MAC Table	-		~	<			
Voice VLAN	1			unlimited	T		
QoS •	2			Contractes of	-		
Mirroring	2			uniimited	·		
UPnP	3		•	unlimited	•		
				Conditional Acad	-		
GVRP •	1.4		e	uniimited			
sFlow	-						
GVRP Flow	5			unlimited	•		
GVRP F SFlow UDLD Monitor	5			unlimited	•		
GVRP F SFlow UDLD Monitor Quick Setup	5		•	unlimited unlimited	•		
GVRP SFlow UDLD Monitor Quick Setup Green Ethernet	5 6 7		× ×	unlimited unlimited 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

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- Provide VLAN ID (Shown below as 1)
- Check Snooping Enabled
- Save the setting once finished.

Configuration Quick Setup		IGM	P Sn	ooping	VLAN	Configura	tion								Refres	h] «<] >
Green Ethernet																
Thermal Protection		Start from	NVLAN 1		with 3	20	entries per page.									
Ports			-	2					-							
DHCP		Delete	ID	Snooping	Querier	Ownering Address	Compatibility			PPI		PV	01/2001	QRI (0.1	LLQI (0.1	IIPI (sec
Security	•	Delete		3	Election	Querier Address	_*			FR			ou (sec)	3444	seci	and face
Aggregation		10				0000	ICHID A.A.		0			6	406	100	10	6
Loop Protection			Ľ.			0.0.0.0	10441-4010	-	U		-	*	160	100	10	1
IPMC Profile		Carrier	CHID LO													
MVR		Place restrict	name no	1												
10140		_														
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IGMP Snooping	:	Save F	beset													
IGMP Snooping Basic Configuration	:	Save F	beset													
IGMP Snooping Basic Configuration VLAN Configuration	:	Save F	beset													
IGMP Snooping Basic Configuration VLAN Configuration Port Filtering Profile	:	Save F 4	leset													
IGMP Snooping Basic Configuration VLAN Configuration Port Filtering Profile MLD Snooping	•••	Save F	leset													
IGMP Snooping Basic Configuration VLAN Configuration Port Filtering Profile MLD Snooping LLDP	•••••••	Save F	loset													
IGMP Snooping Basic Configuration VLAN Configuration Port Fittering Profile MLD Snooping LLDP MAC Table	•••	Save F	beset													
IGMP Snooping Basic Configuration VLAN Configuration Port Fittering Profile MLD Snooping LLDP MAC Table Voice VLAN	•••	Save F	beset													
JGMP Snooping Basic Configuration VLAN Configuration Port Filtering Profile MLD Snooping LLDP MAC Table Voice VLAN QoS		Save F	beset													
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DBMP Snooping DBMP Snooping Basic Configuration VLAN Configuration Port Filtering MLD Snooping LLDP MAC Table Voice VLAN QoS Mitroring UIPAP	•••••••	Save F	beset													
ISBP Snooping Basic Configuration VLAN Configuration Port Filtery Profile MLD Snooping LLDP MAC Table Vice VLAN GoS Mirroring UHsP QURP	•••••••	Save F	beset													
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ISBNP Snooping Basic Configuration VLAN Configuration Port Filtering Profile MLD Snooping LLDP MAC Table Voice VLAN QoS Mitroring UP-PP QVRP SFlow UDCD		Save F	beset													
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JOAP Snooping DiaP Snooping Basic Configuration VLAE Configuration Port Filtering Profile MLC Snooping LLDP MLC Table Vece VLAN QoS Mittoring UPAP QVRP SFlow SFlow UPAP		Save F	beset													

* 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.

LUXUL Simply Connected	
Configuration Monitor Tools Administration Reboot Factory Defaults Firmware Update Firmware Update Firmware Update Firmware Image Select Configuration Save startup-config Download Upload Activate Delete	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
	2

For Technical Support Call Toll Free: 800-626-6445 506 Kingsland Dr, Batavia, IL 60510



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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.

Configuration	IGN	/IP Sno	oping	Configura	ation	
Thermal Protection				n		
Ports •	Carrow	te a Frankland		@ ¹		
DHCP	Snoop	nng ⊏nabled			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	
Security •	Unreg	istered IPMCv4	Flooding Enabl			
Aggregation	IGMP	SSM Range		232.0.0.0	/ 8	
IPMC Profile					-	
MVR	Leave	Proxy Enabled				
IPMC T	Proxy	Enabled				
IGMP Snooping v						
Basic Configuration	Po	rt Relat	ted Col	ofiguratio	n	
VLAN Configuration	1.01	r i i ci		ingulatio		
Port Filtering Profile						
MLD Snooping	Port	Router Port	Fast Leave	Throttling		
LLDP •			\$	0	•	
MAC Table	1			unlimited	•	
Voice VLAN	-			unmilleu	<u> </u>	
QOS •	2		1	unlimited	•	
Wintoring	3			unlimited	•	
GVPP	-	-			<u> </u>	
OVIN P	4		\$	unlimited	•	
sElow						
sFlow	5			unlimited	•	
sFlow UDLD Monitor	5		2	unlimited	•	
sFlow UDLD Monitor Quick Setup	5 6		¥ ¥	unlimited unlimited	•	
SFlow UDLD Monitor Quick Setup Green Ethernet	5 6 7		9 9 9	unlimited unlimited 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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Comparation												Refres) ee >>
Quick Setup		IGM	P Sn	ooping	VLAN	Configurat	ion						
Green Ethernet						and the second							
Thermal Protection		Start from	VLAN 1		with 2	20	entries per page.						
Ports		-		2									
DHCP		Delete	VLAN	Snooping	Querier	Overlag Address	Compatibility	PDI	DV	Oliveral	QRI (0.1	LLQI (0.1	
Security	•	Delete	IU II	Enabled	Election	Quener Address	*	PRI	RV	Gil (sec)	sec)	sec)	UPO (sec)
Aggregation		414				0000	ICHIP Later	(0	 6	408	100	40	6
Loop Protection		0	<u> </u>	۷		0.0.0.0	KaMP-Auto	0	 2	125	100	10	1
IPMC Profile		-	100440			· · · · · · · · · · · · · · · · · · ·							
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Basic Configuration VLAN Configuration		4											
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Basic Configuration VLAN Configuration Port Filtering Profile MLD Snooping LLDP	:	4											
Basic Configuration VLAN Configuration Port Filtering Profile MLD Snooping LLDP MAC Table	:	4											
Basic Configuration VLAN Configuration Port Fittering Profile MLD Snooping LLDP MAC Table Voice VLAN	•	4											
Basic Configuration VLAN Configuration Port Filtering Profile MLD Snooping LLDP MAC Table Voice VLAN QoS		4											
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Basic Configuration VLAN Configuration Port Filtering Profile MLD Snooping LLDP Watch Table Voice VLAN QoS Miteroing UPoP QVRP		4											
Basic Configuration VLAN Configuration Port Filtering Profile MLD Strooping LLDP MAC Table Voice VLAN QoS Mimoring UhiPP QVRP sFlow UbLD	•••••••	4											
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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		
Configuration Monitor	•	Save Running Configuration to startup-config
Tools	•	
Administration	•	Please note: The generation of the configuration file may be time consuming, depending on the amount of non-default configuration.
Reboot		
Factory Defaults		Save Computation
Firmware Update		
Firmware Image Select		
Configuration	•	
Save startup-config		
Download		
Upload		
Activate		
Delete		

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

VOLUTION

- 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.

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					Global Configuration
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•	•	Shool	Shooping Enabled	Shooping Enabled	shooping Enabled
		Unreg	Unregistered IPMCv4	 Unregistered IPMCv4 Flooding Enable 	Unregistered IPMCv4 Flooding Enabled
		IGMP	IGMP SSM Range	IGMP SSM Range	IGMP SSM Range 232.0.0.0
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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.



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

Configuration												Refres	1 1 4 4 3
Quick Setup	IGMI	^o Sn	ooping	VLAN	Configurat	ion							1000
Green Ethernet													
Thermal Protection	Start from	VLAN 1		with 2	0	entries per page.							
Ports	_		2				_						
DHCP	-	VLAN	Snooping	Querier		· · · · · · · · · · · · · · · · · · ·			-	-	QRI (0.1	LLQI (0.1	
Security	Delete	ID	Enabled	Election	Quener Address	Compatibility		PRI	RV	QI (Sec)	sec)	sec)	URI (sec
Aggregation		1.4			(and a second		ala		4	1.044	1 care	0.0	14
Loop Protection	0	<u>'</u>]	۷	×	0.0.0	IGMP-Auto	0		2	125	100	10	1
IPMC Profile	_	_			-								
MVR	Add New	IGMP VU											
IPMC			-										
IGMP Snooping	ا ب												
Basic Configuration	4												
VLAN Configuration													
Port Filtering Profile													
MLD Snooping													
LLDP													
MAC Table													
Voice VLAN													
QoS													
Mirroring													
UPnP													
GVRP													
sFlow													
UDLD													
Monitor													
Monitor Tools													

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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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	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	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	0	0
Global	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	۲	۲
Global	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

