

V 1.0

## INTRODUCTION

The Pulse-Eight OneIP Multiviewer is an ultra-low latency, AV-over-IP solution capable of distributing UltraHD 4K HDMI 2.0 video (18Gbps), with support for HDR, over a 1Gbps Ethernet network.

The following is a step-by-step tutorial for configuring the Packedge MS series switches for use with Pulse-Eight OneIP TRX units. Please follow the instructions below before connecting any OneIP devices to the switch.



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## SUPPORTED PRODUCTS

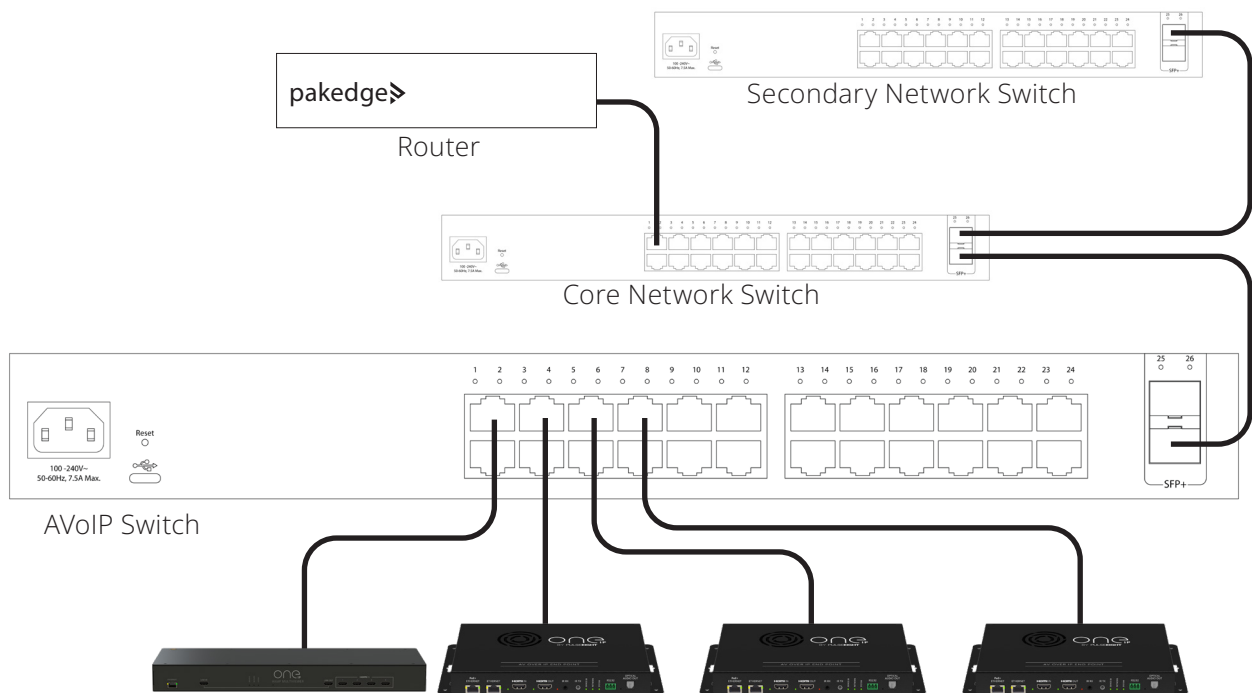
- Packedge MS series switches.

 *Note: Please note this has only been tested with MS2424 at the present time.*

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## IMPORTANT NOTES!

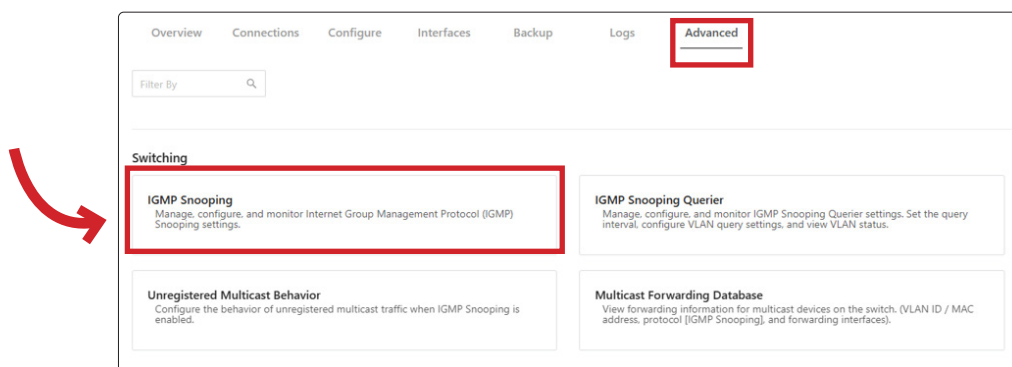
Do **NOT** connect any OneIP devices to the switch before configuration is completed, doing so may cause the switch to run slow or crash due to multicast data flooding the network.



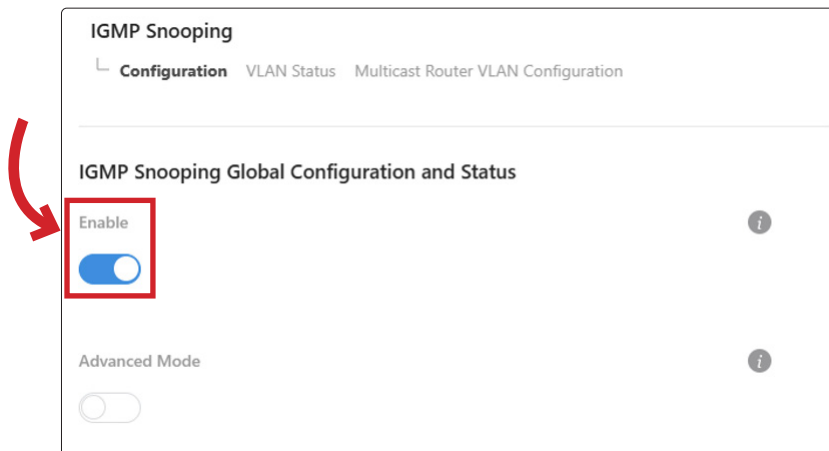
## CORE SWITCH (OR SINGLE SWITCH) CONFIGURATION

Log in to the Pakedge Switch web interface. The Pakedge MS switches are set to DHCP by default; to find an IP address, you need to scan the network or check the DHCP server; if no DHCP server is available, the switch will default to 192.168.1.205.

1. Log in to the Web UI. The default credentials are **admin** and **password**.
2. Create a new secure password and username.
3. Set the switch to a static IP address or DHCP reserved from the DHCP server (optional).
  - a. Select "**Configure**" then under "**LAN**" change mode to Static and set the desired IP address, Subnet Mask, and Gateway.
  - b. Save the settings by clicking "**Apply**" in the top right corner of the screen. The switch will reboot and use the static or reserved IP address.
  - c. Once "**Submitting**" shows on the screen, close the browser window.
4. Log in to the Web UI using the new IP address, username, and password.
5. From the main menu, select "**Advanced**" and then '**IGMP Snooping**' under the switching section.




6. Enable the IGMP Snooping Global Configuration and Status toggle switch and click "Apply".



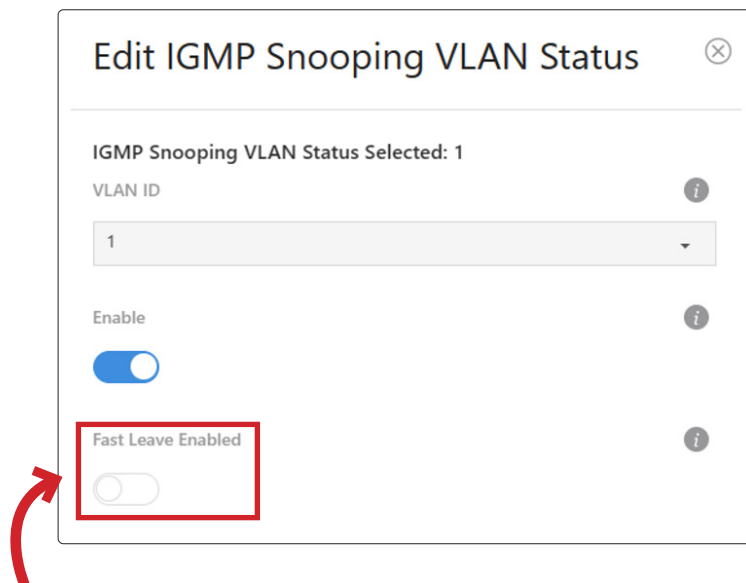
The screenshot shows the 'IGMP Snooping' configuration page. The 'Configuration' tab is selected. Under 'IGMP Snooping Global Configuration and Status', the 'Enable' toggle switch is turned on and highlighted with a red box. A red arrow points to this box. Below it, the 'Advanced Mode' toggle switch is turned off.

7. Move to the VLAN Status page, and click "OPTIONS" button to add a VLAN entry.



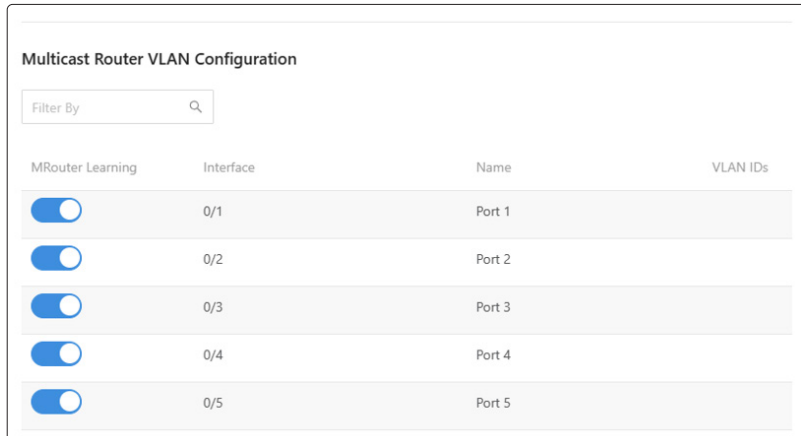
The screenshot shows the 'IGMP Snooping VLAN Status' page. The 'VLAN Status' tab is selected. At the bottom right, there is a red 'OPTIONS' button with a plus icon, highlighted with a red box. A red arrow points to this button.

8. Select the VLAN ID on which the OneIP devices are connected and disable Fast Leave for all switches.



The screenshot shows the 'Edit IGMP Snooping VLAN Status' dialog. The 'VLAN ID' dropdown menu is set to '1'. The 'Enable' toggle switch is turned on. The 'Fast Leave Enabled' toggle switch is turned off and highlighted with a red box. A red arrow points to this box.

9. Click the **Apply** button in the top right corner of the page.
10. On the **Multicast Router VLAN Configuration** page, enable MRouter Learning on all ports and click **Apply**.

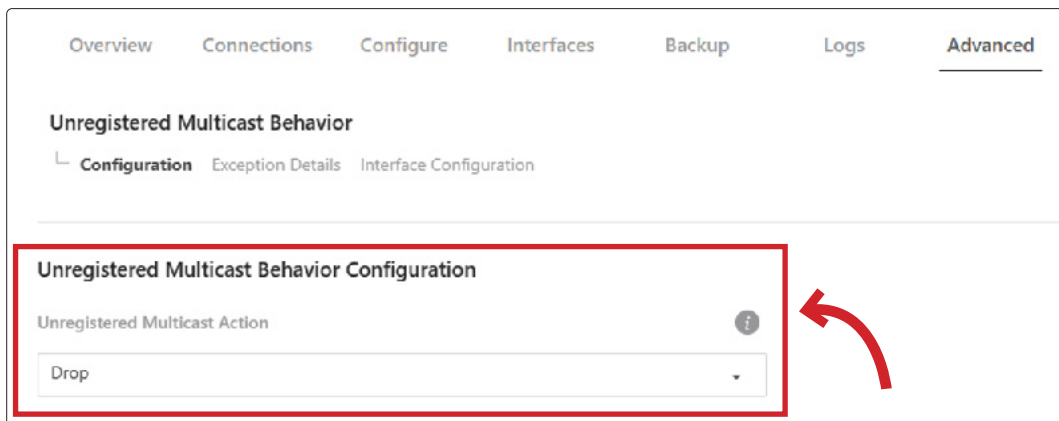


**Multicast Router VLAN Configuration**

Filter By

MRouter Learning	Interface	Name	VLAN IDs
<input checked="" type="checkbox"/>	0/1	Port 1	
<input checked="" type="checkbox"/>	0/2	Port 2	
<input checked="" type="checkbox"/>	0/3	Port 3	
<input checked="" type="checkbox"/>	0/4	Port 4	
<input checked="" type="checkbox"/>	0/5	Port 5	

11. Go to **Advanced > Unregistered Multicast Behaviour > Configuration**. Set **Unregistered Multicast Behaviour Configuration** to Drop. Click Apply.



Overview Connections Configure Interfaces Backup Logs **Advanced**

**Unregistered Multicast Behavior**

Configuration Exception Details Interface Configuration

**Unregistered Multicast Behavior Configuration**

Unregistered Multicast Action

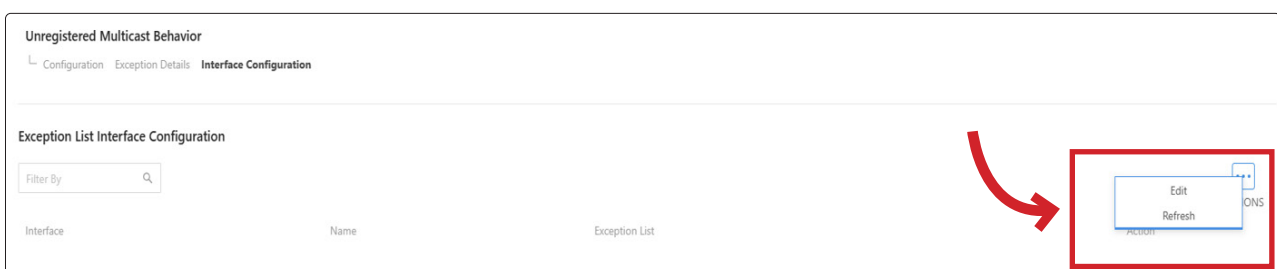
Drop

12. If you notice an entry for **EXC\_default\_list** under the Exemptions list, proceed to the next steps. If not, then your configuration is complete.



Exception List Name	Action
EXC_default_list	

13. Click on the **Interface Configuration** tab, then select **Options** and **Edit**.



**Unregistered Multicast Behavior**

Configuration Exception Details **Interface Configuration**

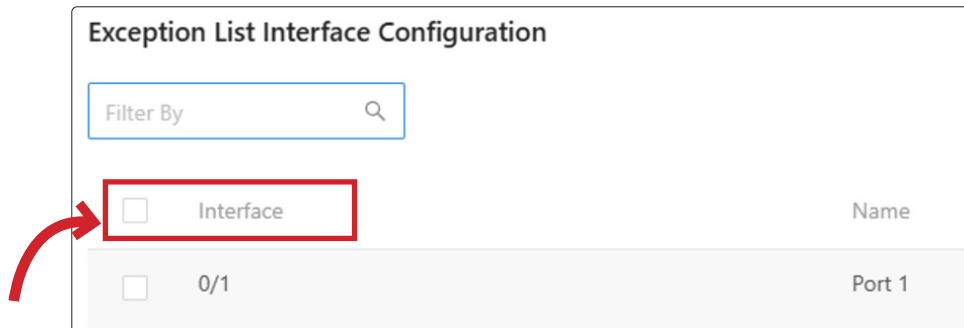
**Exception List Interface Configuration**

Filter By

Interface	Name	Exception List

Edit Refresh

14. To select all entries in the **EXC\_default\_list**, click the box next to Interface. Then, click Edit Selected.

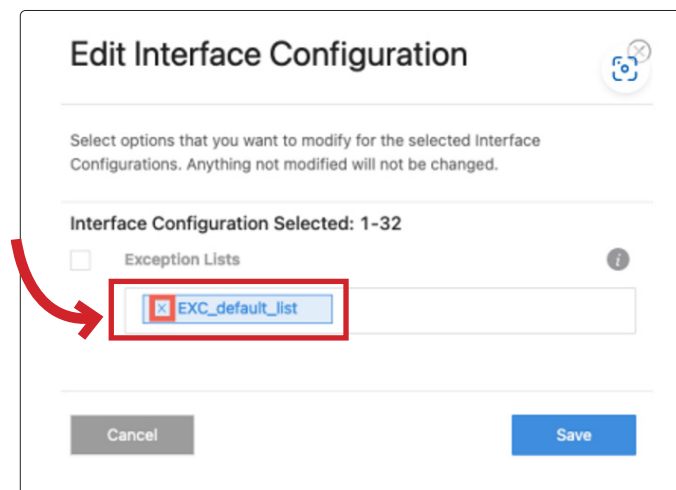


Exception List Interface Configuration

Filter By

<input type="checkbox"/>	Interface	Name
<input type="checkbox"/>	0/1	Port 1

15. Click the "x" in the **EXC\_default\_list** object to delete it.



Edit Interface Configuration

Select options that you want to modify for the selected interface Configurations. Anything not modified will not be changed.

Interface Configuration Selected: 1-32

☐ Exception Lists

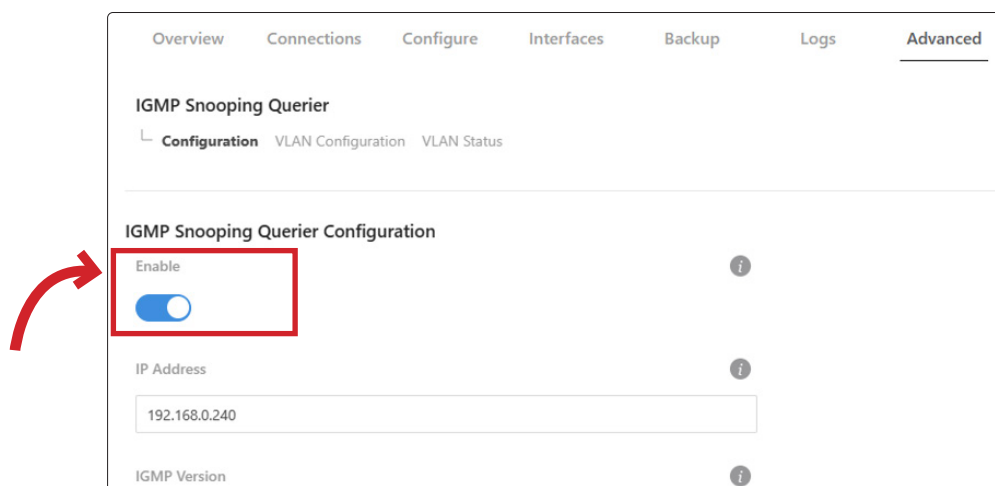
☒ EXC\_default\_list

Cancel Save

16. Click **Save** and then **Apply** at the top of the page.

17. Go to **Advanced > IGMP Snooping Querier > Configuration**. Click **Enable** and make sure the **IGMP Version** is set to **V2**, then click **Apply** at the top of the page.

18. The Querier IP address should be set to the same IP address as the switch.



Overview Connections Configure Interfaces Backup Logs **Advanced**

IGMP Snooping Querier

Configuration VLAN Configuration VLAN Status

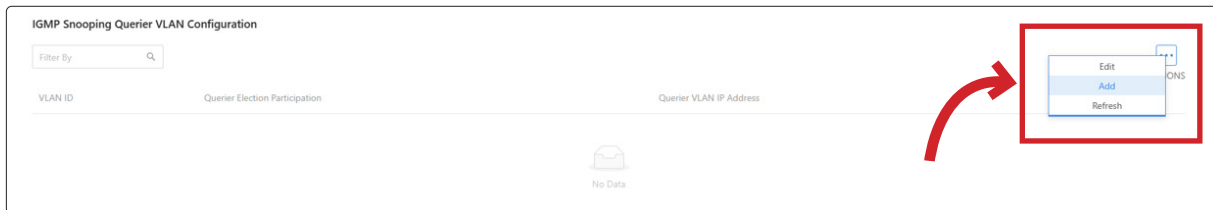
IGMP Snooping Querier Configuration

Enable ☒

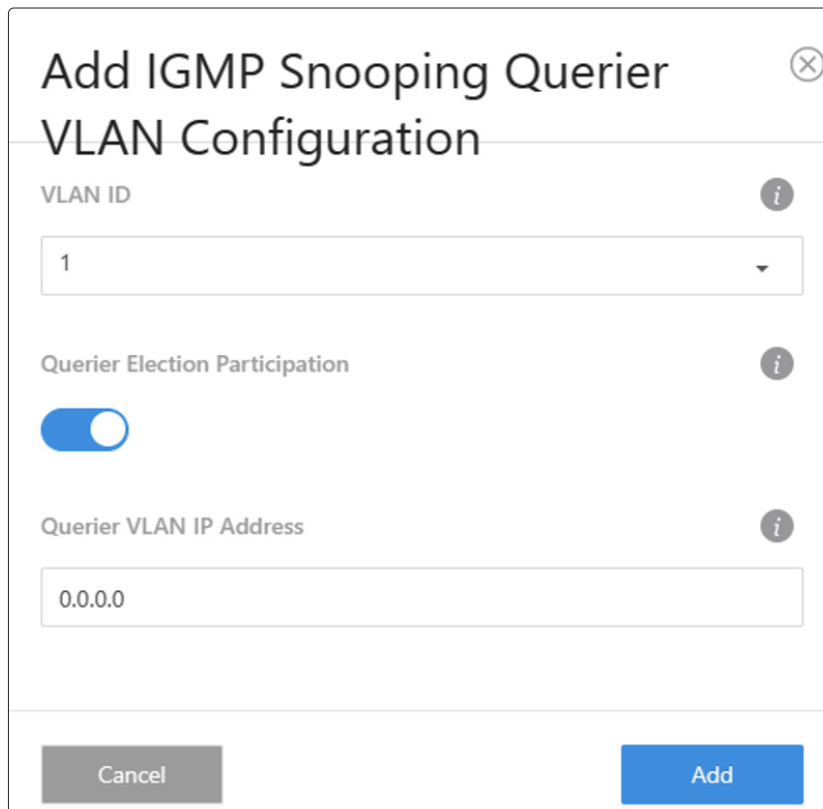
IP Address

IGMP Version

19. Select the **VLAN Configuration Tab** in the **IGMP Snooping Querier** menu.
20. On the right side, select the three dots under **OPTIONS** and choose '**Add**'.



21. Confirm VLAN 1 is selected and enable '**Querier Election Participation**'. The VLAN IP can be 0.0.0.0.
22. Then, click **Add** button.



23. Click the **Apply** button in the top right corner of the screen.
24. This is all that is needed for a single switch setup.

## MANUAL VERSION HISTORY

V1.0 - 8th February 2024. First version.