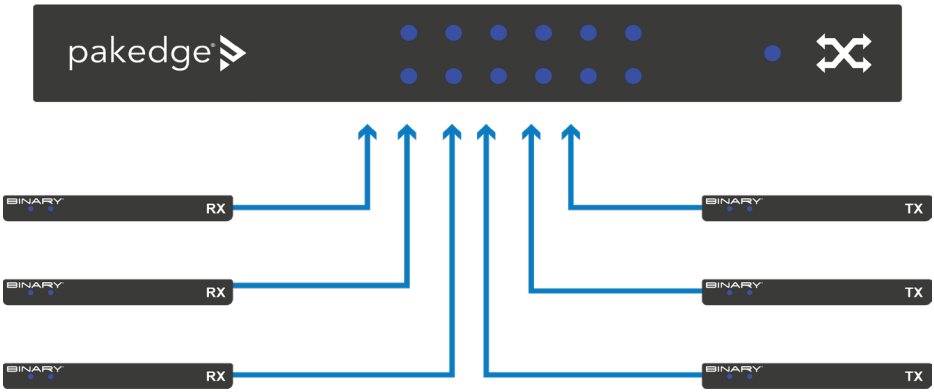
MEDIA OVER IP SYSTEM
All B-900-MOIP-4K Units

BINARY

BINARY MOIP SETUP GUIDE FOR A SINGLE PAKEDGE MS SERIES SWITCH

INTRODUCTION

This document covers MoIP configuration with a single Pakedge, MS series switch.

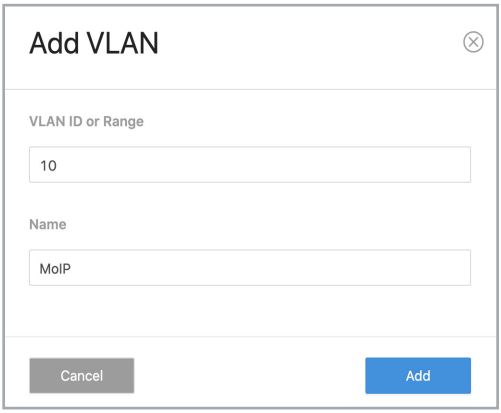


VLAN SETUP

In large networks it can be beneficial to configure the MoIP system to be part of its own VLAN. This isolates MoIP traffic so it does not interfere with other systems on the network.

The following steps can be taken to configure a VLAN for MoIP. In the IGMP configuration that follows, the VLAN created here should be used. If no added VLANs are being used the IGMP configuration steps are the same, except for the VLAN used being your LAN.

1. Navigate to **Interfaces** > **VLAN**
2. Under the first section Database, click the **Option** icon, then click **Add** to create new VLANs on the switch. Click **Apply** at the top of the page, when finished.

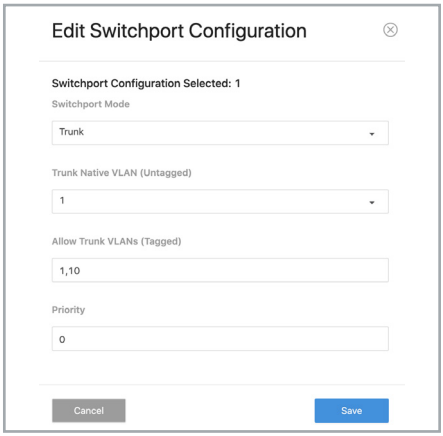


3. Next, navigate to **Interfaces** > **VLAN** > **Switchport Configuration**. MS Switches support two Switchport options for VLAN tagging:

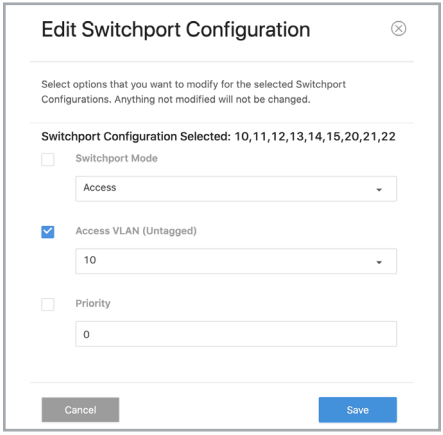
   a. **Access** - A single VLAN ID can be assigned to a port and all incoming traffic on that port is placed into that VLAN. The default for all ports on the switch is Access mode, with the VLAN set to 1.

   b. **Trunk** - A single VLAN ID is set as the Untagged "Native VLAN." Meaning any untagged, incoming traffic is assigned to that VLAN and any traffic outgoing for that VLAN is not tagged.
   A trunk port can be set to allow any number of VLANs as tagged traffic, so that traffic must be incoming or leaving on one of the specified VLANs.

4. All ports connected to MoIP devices should be set with your MoIP VLAN on **Access**.



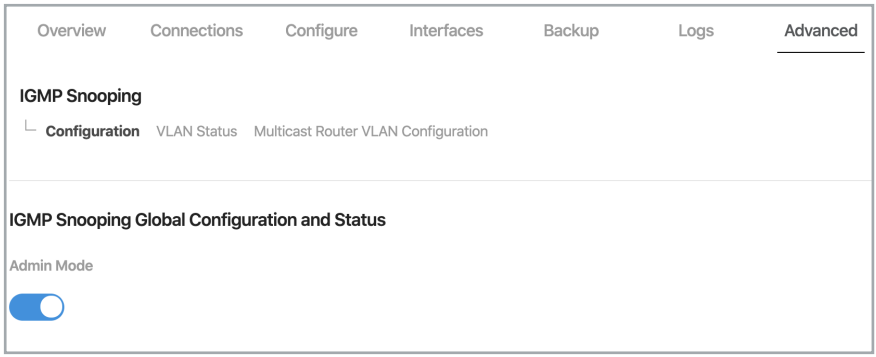
5. Ports connected to your router, switch, and access points should be set to **Trunk**.



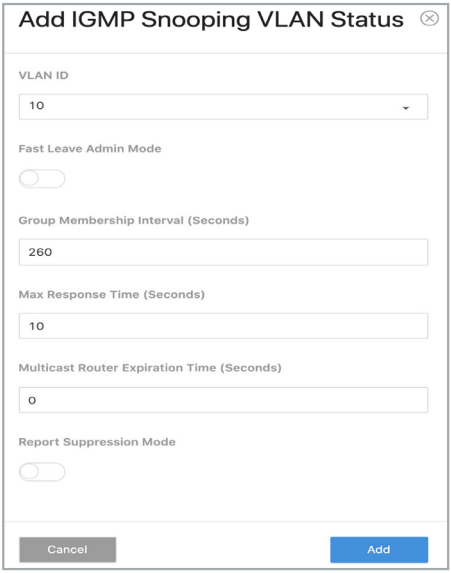
SWITCH CONFIGURATION

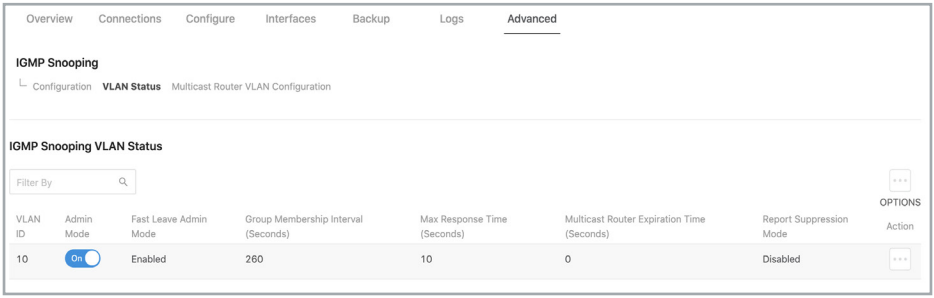
1. Switches running MoIP must have their MTU set to be greater than 8000 bytes. The default configuration of MS switches is already set to the maximum of 9198. Double check this under **Interfaces** > **Port** > **Port Summary** and by editing any port to view its details.
2. Navigate to **Advanced** > **IGMP Snooping** > **Configuration**.

3. Set IGMP Snooping Global Configuration Status Admin Mode to **Enable**.

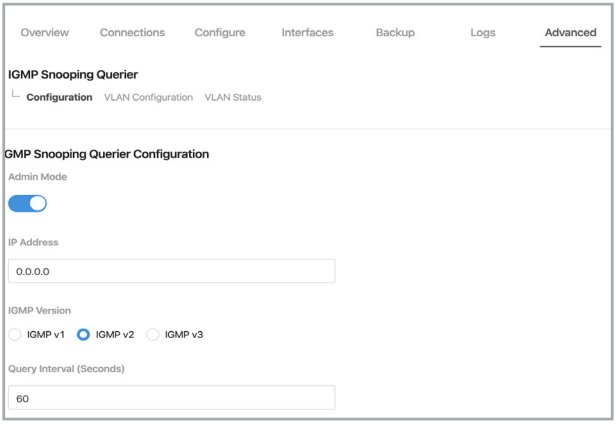


4. Navigate to Advanced > IGMP Snooping > VLAN Status.
5. Click the **Option** button, then select **Add**.
6. Select the **VLAN ID** of the MoIP VLAN you created.
7. Click the **Fast Leave Admin Mode** toggle. Fast leave will improve video switching times and bandwidth utilization

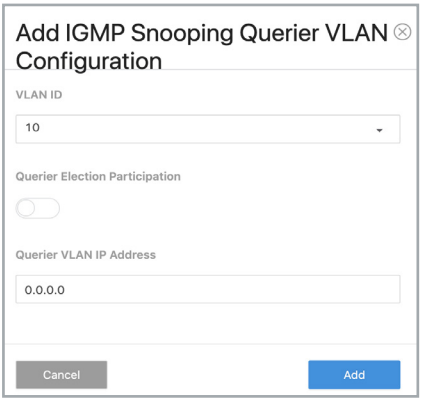




8. The switch should have IGMP Snooping Querier Enabled. Navigate to **Advanced** > **IGMP Snooping Querier** > **Configuration** and click the **Admin Mode** toggle. Leave **IP Address** at 0.0.0.0.
9. Under **IGMP Version**, select **IGMP V2**.



9. Under **IGMP Snooping Querier**, go to **VLAN Configuration** and click the **Option** button, then **Add**. Select the **VLAN ID** for the VLAN which is running IGMP Snooping.



Querier Election Participation does not need to be enabled if you are manually setting the Core switch in the network as the querier, and you're leaving querier disabled on the edge switches. Leave Querier VLAN IP Address at 0.0.0.0

10. The MoIP VLAN must also have **Unregistered Multicast Behavior** set to drop. To do so, navigate to **Advanced** > **Unregistered Multicast Behavior** and click the **Unregistered Multicast Drop** toggle.

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