V1.0

INTRODUCTION

The Pulse-Eight OneIP transceiver 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.

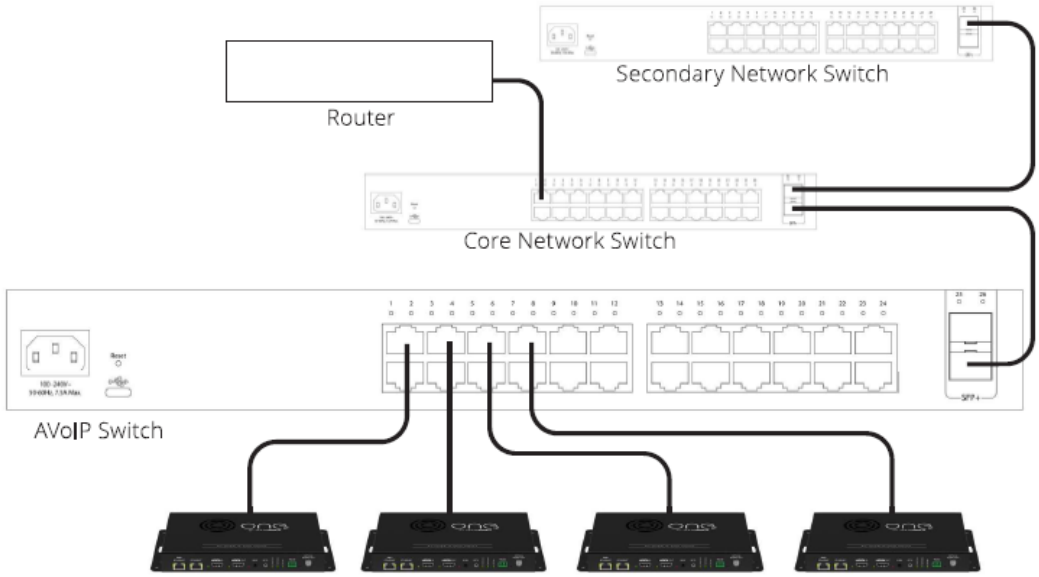
The following is a step-by-step tutorial for configuring Araknis-420 Switches for use with Pulse-Eight OneIP TRX units. Please follow the instructions below before connecting any OneIP devices to the switch.

SUPPORTED PRODUCTS

- Araknis-420

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.



Connecting to your Araknis 420 Network Switch

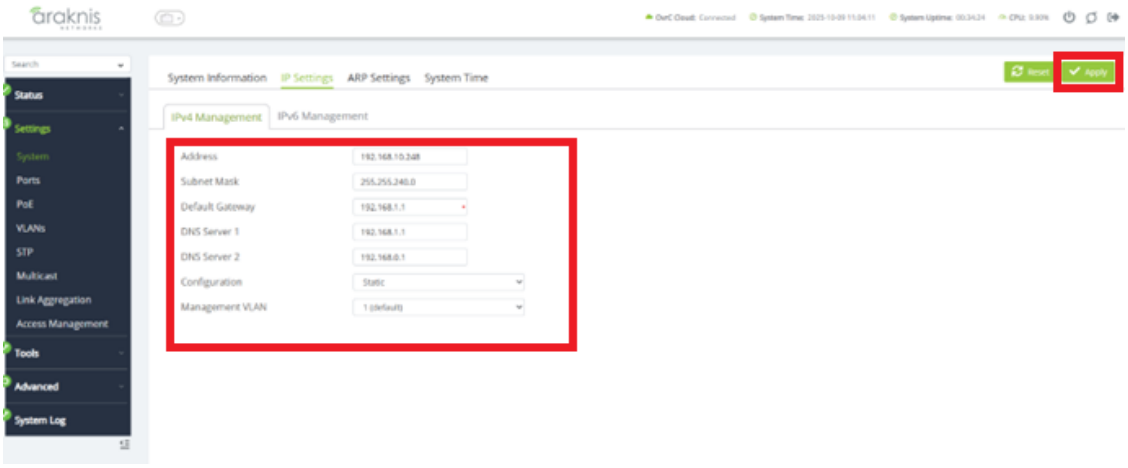
Log in to the Araknis AN Switch web interface. The Araknis switches are set to DHCP by default, therefore you will need to scan the network or check DHCP server to find the IP address; if no DHCP server is available the switch will default to 192.168.20.254.

1. Log in to the Web UI. The default credentials are
   Username: araknis
   Password: araknis

2. Create a new secure password and username.
3. Set the switch to a static IP or DHCP reserved from the DHCP server.

   a. On the left hand menu select “Settings” and then select the “Systems” subcategory: Navigate to IP settings on the top tab bar, you can change the IP settings of the switch on this screen.

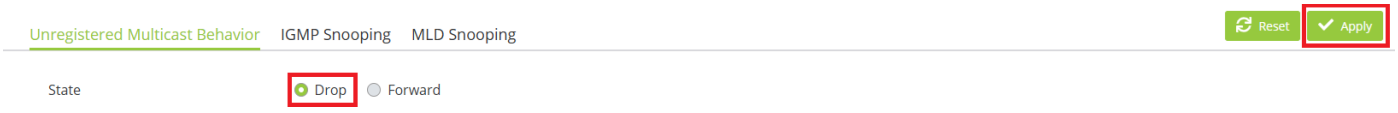
   b. Once you have configured your desired settings click “Apply” on the top right of the screen to save the settings, the switch will now apply the new IP settings and be on the static or reserved address.



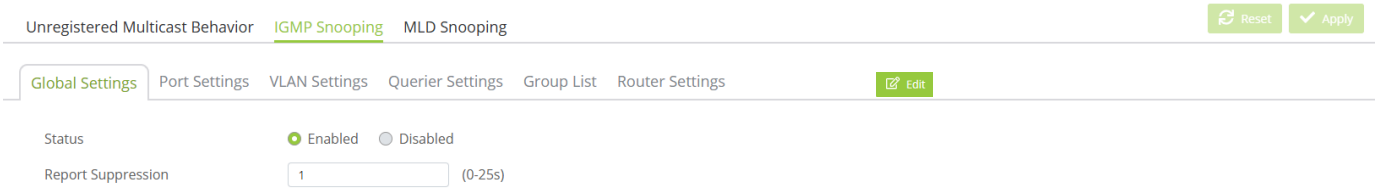
4. Log in to the Web UI using the new IP address, username, and password.

CORE SWITCH (OR SINGLE SWITCH) CONFIGURATION

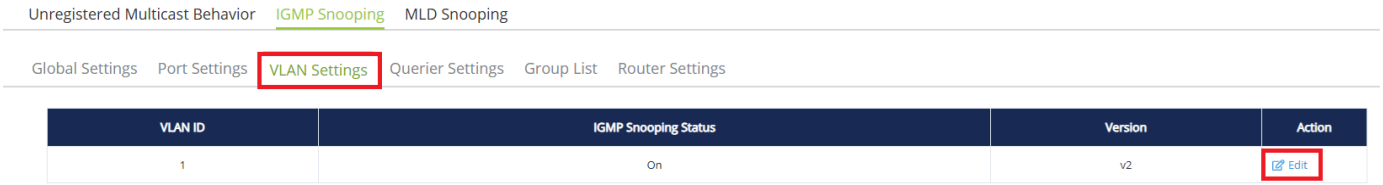
1. On the left hand menu select “Settings” and then select the “Multicast” subcategory on this same menu.
2. Under Unregistered Multicast Behavior set the state to “Drop”, then click apply on the top right



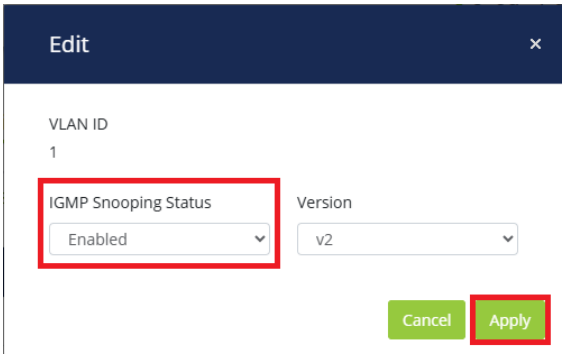
3. Click the “IGMP Snooping” tab at the top of this section, then under “Global Settings” change the Status to enabled and set the Report Suppression to 1, then click apply on the top right



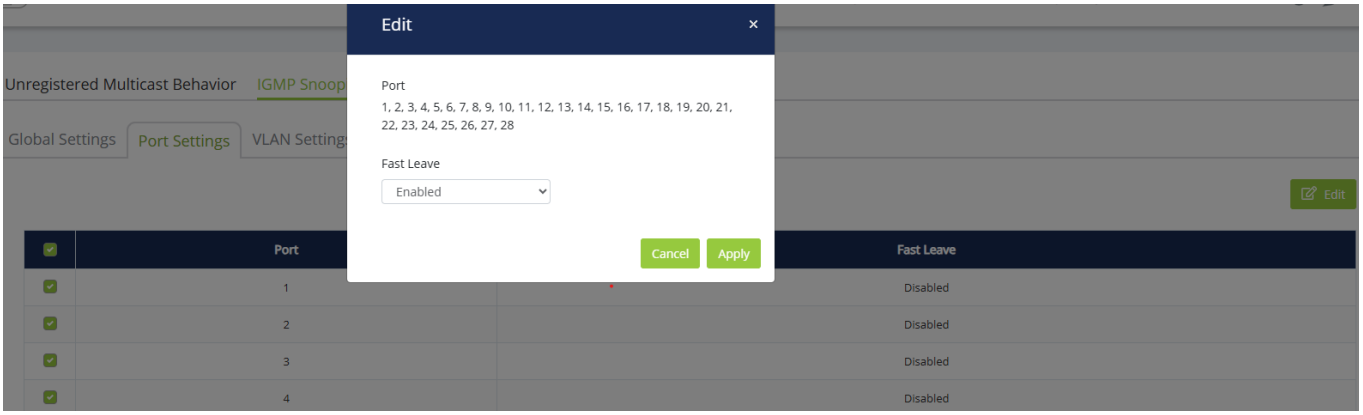
4. a. Click the “VLAN Settings” at the top of this section, then in the table below click “Edit” under the actions column,



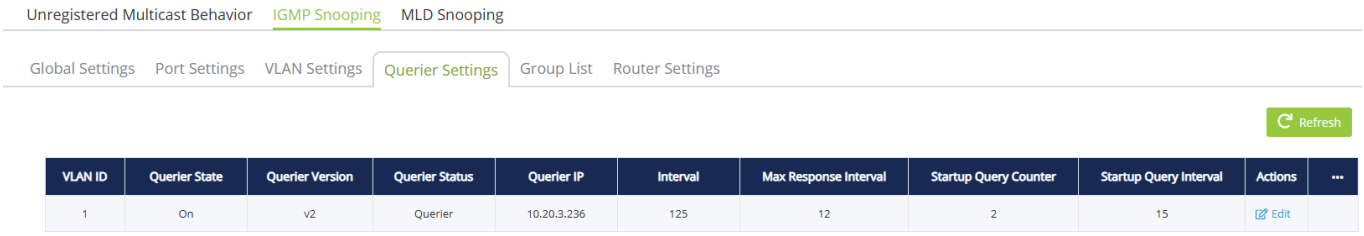
b. toggle IGMP Snooping Status to “Enabled” and click “Apply”



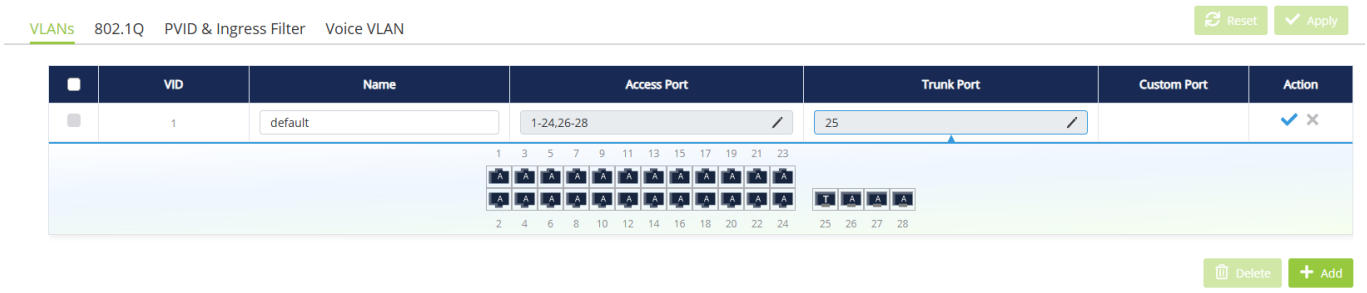
5. Click the Port Settings tab at the top, then ensure that all ports using OneIP have fast leave disabled, if you need to change this select all the the ports using OneIP, then click “Edit” and toggle fast leave to disabled, then click apply on the top right



6. Click the “Querier Settings” tab at the top, under actions on the table click Edit, toggle Querier State to on and click apply. Double check the Querier IP is the same as the Switch IP, then click apply on the top right.



The switch is now configured for usage with OneIP, and the units can now be plugged into it.

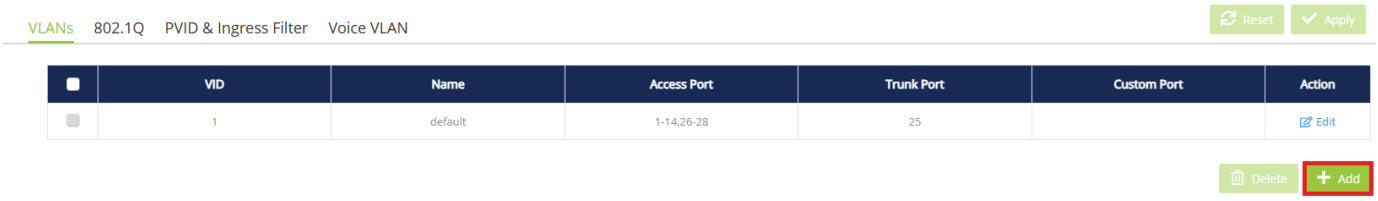


Setting up an AV VLAN

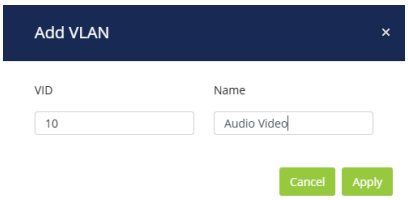
Please note that once the AV VLAN is configured the only way to access the AV VLAN is from a port on the same VLAN, if you wish to bridge access from another VLAN for access by a control system on a different VLAN it is recommended that you use the OneIP Multicast Filter (P8-ONEIP-NET-FILTER) or consult the network switch manufacturer for work arounds to suit your installation

1. Once connected to your Araknis Network Switch, click the settings tab on the left side of the screen and from the subtabs that appear select VLANs

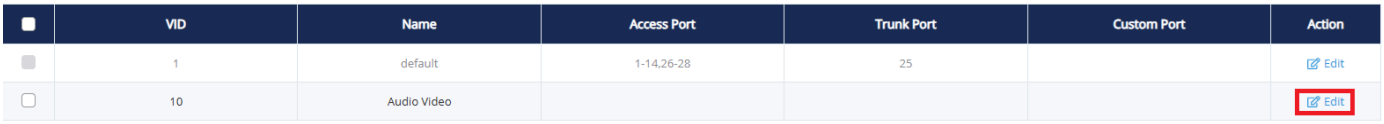
2. On the first page that opens click Add on the right hand side of the screen under the VLAN table



3. This will open a window prompting you to enter a VLAN ID and name your VLAN. For this example I will use VLAN ID 10 and name it Audio Video.

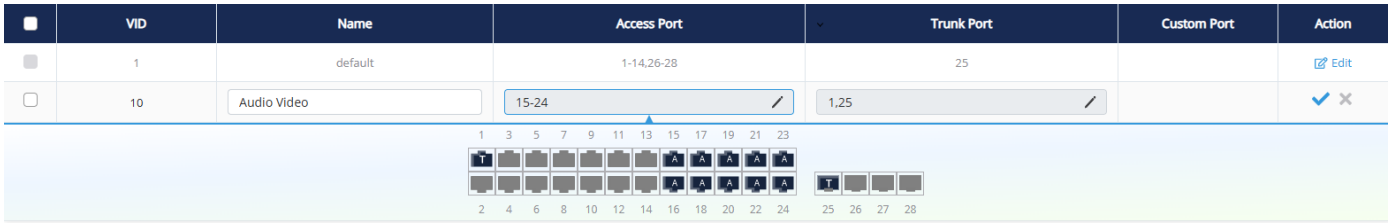


4. You will now see your new VLAN showing on the table. Under the actions column of this table click the Edit button

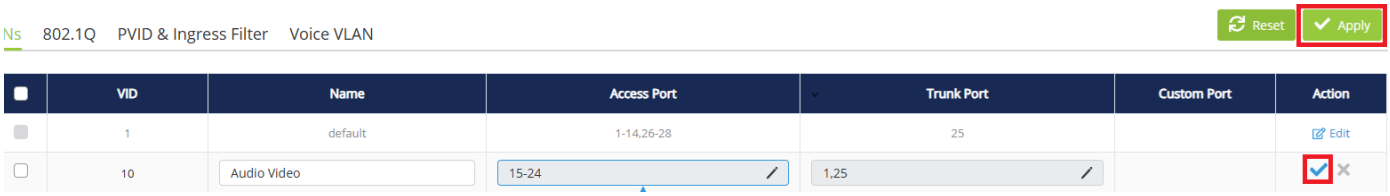


This will now allow you to set the Access Ports and Trunk Ports for this VLAN. Access ports are the ports that the devices using this VLAN will be plugged into, Trunk Ports are ports used to carry traffic from multiple VLANS, this will usually be used to link your Control VLAN and AV VLAN to a router or another Network Switch.

In the example below I have set Ports 15-24 for my OneIP devices to connect and I am using ports 1 and 25 for connection to other network switches

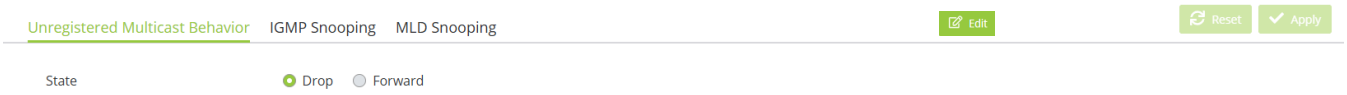


Once configured click the tick button under actions and then Apply on the top right

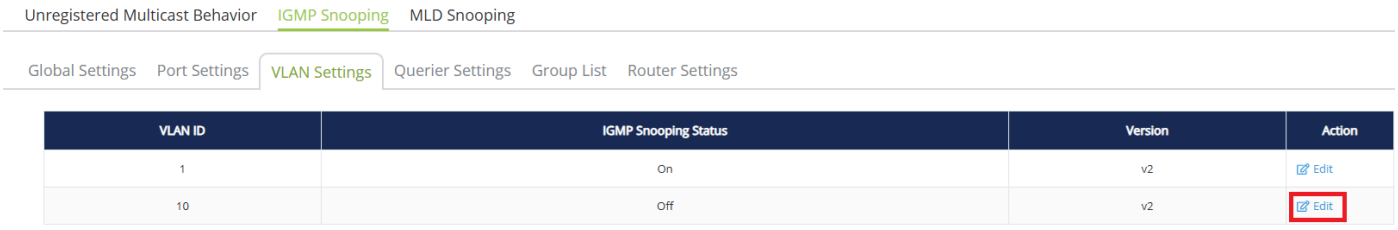


Once the VLAN Ports have been configured and added to the Network Switch you will need to set the VLAN behaviour, this is a similar process to configuring the switch when not using VLANS

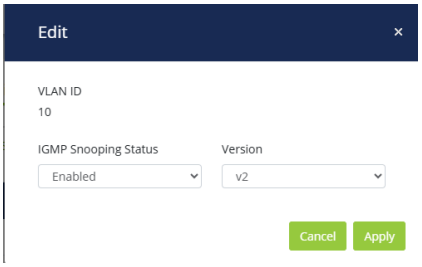
1. Select "Multicast" from the Settings Tab
2. Under Unregistered Multicast Behavior set the state to "Drop", then click apply on the top right



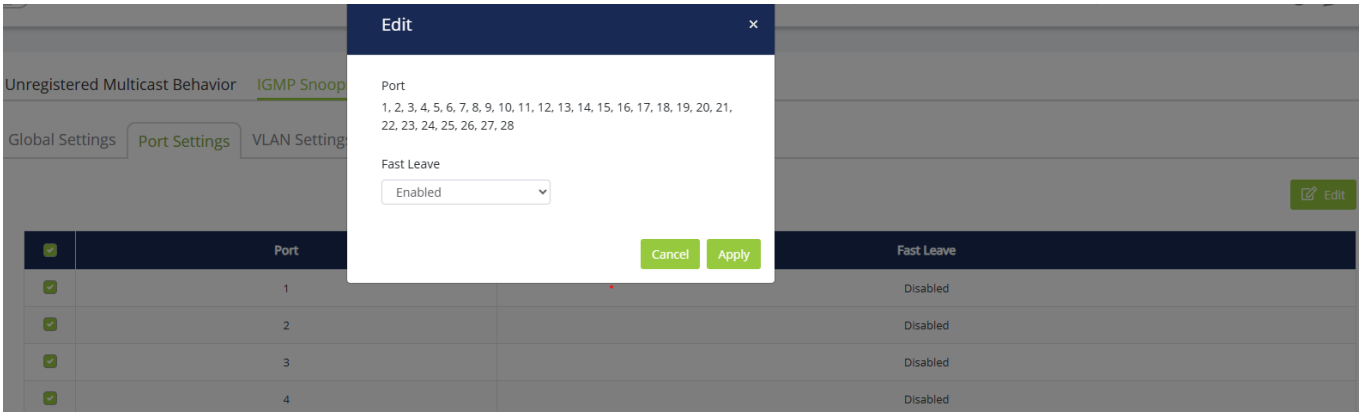
3a. Click the IGMP Snooping tab at the top, then under VLAN Settings you will have a similar table to in the set-up phase. Find your VLAN ID and follow across to the actions column and click Edit



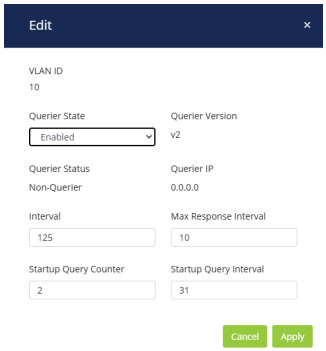
b. Change IGMP Snooping Status to Enabled and the Version as v2, then click apply



4. Click the Port Settings tab at the top, then ensure that all ports using this VLAN have fast leave disabled, if you need to change this select all the the ports using OneIP, then click “Edit” and toggle fast leave to disabled, then click apply on the top right

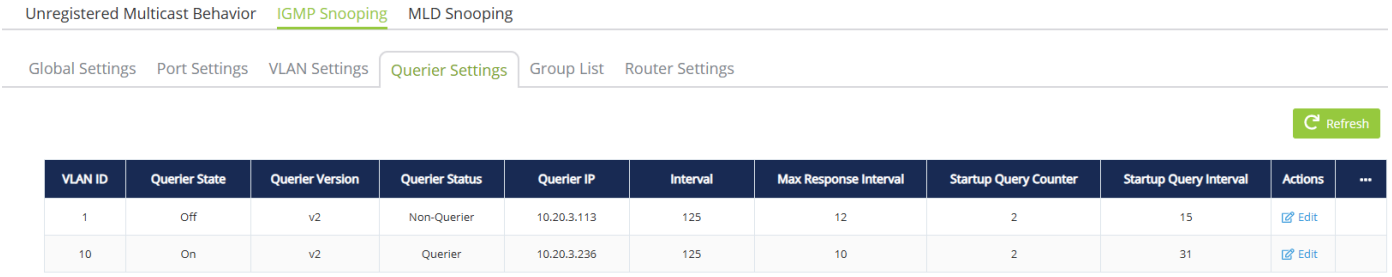


5. Click the Querier Settings subtab at the top, find your VLAN and under the actions column click Edit, toggle Querier State to on and click apply.



6. Double check the Querier IP is the same as the Switch IP, then click apply on the top right.

The switch is now configured for usage with OneIP, and the units can now be plugged into it.



MANUAL VERSION HISTORY

V1.0 - 14th October 2025. First version.
V2.0 - 26th January 2026. Added information about VLANS and clarifications.