PULSEEIGHT

V 1.0

INTRODUCTION

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

The following is a step-by-step tutorial for configuring an Arakis AN210/310 series switch for use with Pulse-Eight OneIP TRX units. Please follow the instructions below before connecting any OneIP devices to the switch.


SUPPORTED PRODUCTS

• Araknis AN-210
• Araknis AN-310

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.

It is important to configure the router IP and gateway to a .254 address, such as 192.168.1.254, while utilising Araknis AN-210/310 switches. This is to avoid issues with the Araknis AVoIP switches querier address.

It is also important to configure the switch to use the smallest available IP address, such as 192.168.0.1. This will force the querier address to the IP of the switch. If this is ignored, then there will be issues with the switch querier pointing at the router address, causing streaming issues with OneIP.

PULSE**EIGHT**

Router

Secondary Network Switch

Core Network Switch

AVoIP Switch
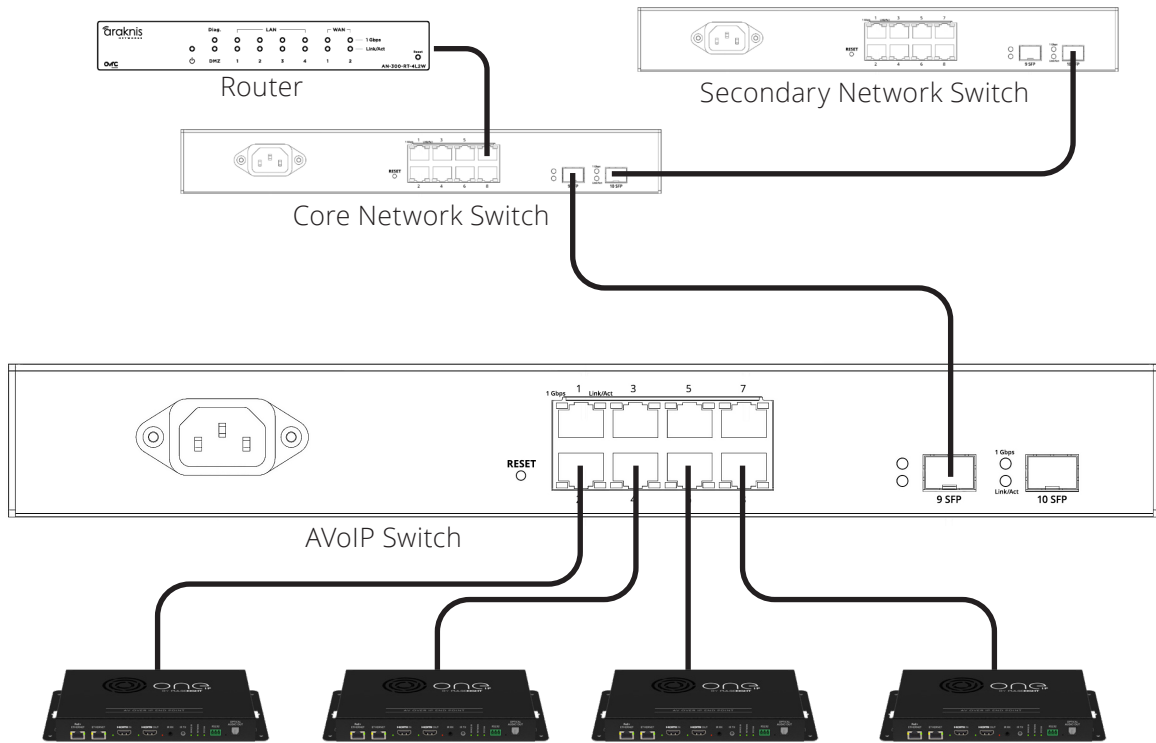
CORE SWITCH (OR SINGLE SWITCH) CONFIGURATION

Log in to the Araknis AN Switch web interface. The Araknis 210/310 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 araknis and 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. Select the "System Tab" under "Settings." From here, you can change the IP settings of the switch.

IP Address Settings	IPv4			
IPv4			**IPv6**	
Auto Configuration	● Static ○ DHCP		IPv6 State	Auto Configuration
IPv4 Address	192.168.0.1		IPv6 Address	fe80::d66a:91ff:fee4:41c4
				/ 64 (1-127)
Subnet Mask	255.255.255.0		Default Gateway	
Default Gateway	192.168.0.254		Link Local Address	fe80::d66a:91ff:fee4:41c4
DNS Server 1	90.207.238.97			
DNS Server 2	90.207.238.99			

   b. Click Apply in the bottom 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.
5. Select "Advanced" from the main menu and then choose 'Multicast >IGMP Snooping'.
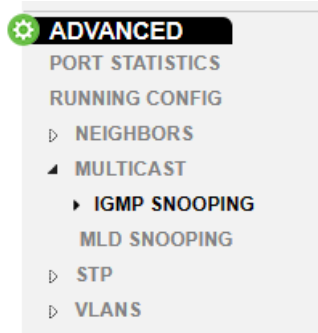
6. Under "Settings" set Status to Enabled, Version to V2, Report Suppression to Enabled and Unregistered Multicast to Drop.

Settings	
Status	⊙Enabled ○Disabled
Version	⊙V2 ○V3
Report Suppression	⊙Enabled ○Disabled
Unregistered Multicast Behavior	○Flood ⊙Drop

7. Under "VLAN Settings" set 'IGMP Snooping Status' to Enabled and 'Fast Leave' to Disabled.

VLAN Settings		
VLAN ID	IGMP Snooping Status	Fast Leave
1	Enabled	Enabled

8. Under "Querier Settings" set 'Querier state' to enabled. The version should be V2 and ensure that the querier address is same as the switch IP (Please see notes at top of document regards querier address).

VLAN ID	Querier State	Querier Version	Querier Status	Querier IP	Robustness	Interval	Oper Interval	Max Response Interval	Oper Max Response Interval	Last Member Query Counter	Oper Last Member Query Counter	Last Member Query Interval	Oper Last Member Query Interval
1	Enabled	v2	Querier	192.168.0.1	2	125	125	10	10	2	2	1	1

9. Under "Router Settings" Enable the 'Router Ports Auto-Learned' . If there is a link to core network switch, ensure that this port is included to the Forbidden Port list.

VLAN ID	Router Ports Auto-Learned	Dynamic Port List	Static Port List	Forbidden Port List
1	Enabled			1

10. Click Apply at the bottom RHS of the screen.

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

MANUAL VERSION HISTORY

V1.0 - 12th January 2024. First version.