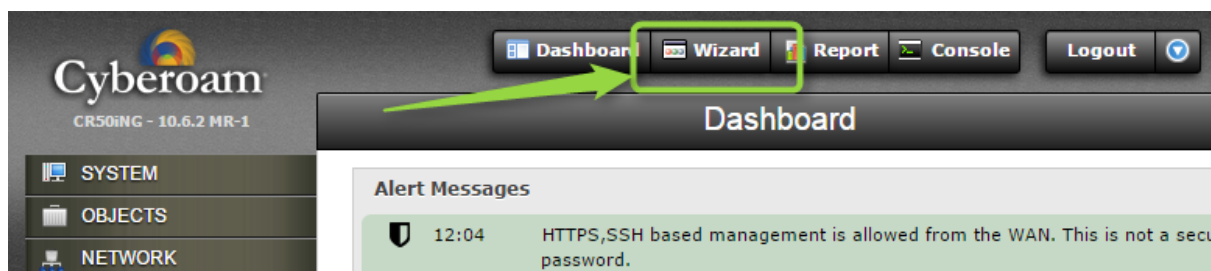


Cyberoam UFB VLAN Configuration

Sample setup for PPPoE over VLAN ID = 10.

Background: 802.1Q VLANs in this context are virtual interfaces on the router that are built on top of a physical network interface. If the underlying physical interface is not configured the Cyberoam OS will not 'start' it, therefore the virtual sub interfaces also won't start. The idea is to create a dummy address & zone for the physical interface so that it is configured & will start

NOTE: It is assumed that the firewall 'Wizard' has already been run beforehand. This is highly recommended. Set your UFB connected port to either WAN or DMZ at this stage if you want as it will be changed in the later steps of this guide.



1. Create a DMZ based Zone to use later.

Base it on DMZ & make sure there's no services enabled.

Interface	IP Tunnel	Zone
-----------	-----------	------

Add Zone

Name *

Type * ☐ LAN ☒ DMZ

Members None

Description

Appliance Access

Admin Services

☐ HTTP ☐ HTTPS ☐ TELNET ☐ SSH

Authentication Services

☐ Windows/Linux Client ☐ Captive Portal ☐ NTLM

☐ Radius SSO

Network Services

☐ DNS ☐ Ping/Ping6

Other Services

☐ Web Proxy ☐ SSL VPN

2. Configure the physical port that you are connecting to the telco ONT with a placeholder dummy address as below.

Use the previously configured network zone & if required drop the MTU down to 1492 to allow for PPPoE overhead of 8 bytes.

A placeholder IP address is used in the example but this could be anything that doesn't clash with your internal network. Make it a /32 to reduce broadcast traffic.

Interface
IP Tunnel
Zone

General Settings

Physical Interface
PortB

Network Zone
UFB_Physical

☒ IPv4 Configuration

IP Assignment
Static
PPPoE
DHCP

IPv4 / Netmask *
172.20.20.255 / 32 (255.255.255.255)

Gateway Detail

Gateway Name

IP Address

☐ IPv6 Configuration

Advanced Settings

Interface Speed
Auto Negotiation

MTU
1492 (576 - 1500)

☒ Override MSS
1452 (536 - 1460)

☒ Use Default MAC Address
00:02:B6:44:64:D5

☐ Override Default MAC Address

OK
Cancel

3. Create the VLAN sub interface

Interface

IP Tunnel

Zone

Add Bridge

Add Alias

Add VLAN

Add LAG

Delete

	<input type="checkbox"/>	Interface Name	Interface Type	Status	IP Address
					IP
	<input type="checkbox"/>	PortA	Physical	Connected, 1000 Mbps - Full Duplex	10.13.0.199/255.25
	<input type="checkbox"/>	PortB	Physical	Connected, 1000 Mbps - Full Duplex	172.20.20.255/255.
	<input type="checkbox"/>	PortC	Physical	Disabled	N/A
	<input type="checkbox"/>	PortD	Physical	Disabled	N/A
	<input type="checkbox"/>	PortE	Physical	Disabled	N/A
	<input type="checkbox"/>	PortF	Physical	Disabled	N/A
	<input type="checkbox"/>	PortG	Physical	Disabled	N/A
	<input type="checkbox"/>	PortH	Physical	Disabled	N/A

Add Bridge

Add Alias

Add VLAN

Add LAG

Delete

4. Configure as below with correct PPPoE credentials

Interface IP Tunnel Zone

Add VLAN

Physical Interface* PortB
Zone* WAN
VLAN ID* 10

IPv4 Configuration

IP Assignment ☐ Static ☒ PPPoE ☐ DHCP
IPv4 / Netmask* / /24 (255.255.255.0)
Preferred IP

Gateway Detail

Gateway Name* UFB_INTERNET
IP Address
Username* change@me
Password*
Service Name

☒ LCP Echo Interval Send LCP echo request every 20 seconds (5-180, Default: 20)
☒ LCP Failure Wait for LCP echo reply for 3 attempts (Default: 3)
☐ Schedule Time For Reconnect All Days of week 00 HH 00 MM

OK Connect Cancel

5. Note that some ISP PPPoE servers don't honour LCP requests. If this is the case you will see disconnects every few minutes and should switch off LCP echo detection.

Your networks section overview will show if the circuit is successful or not.

Interface IP Tunnel Zone

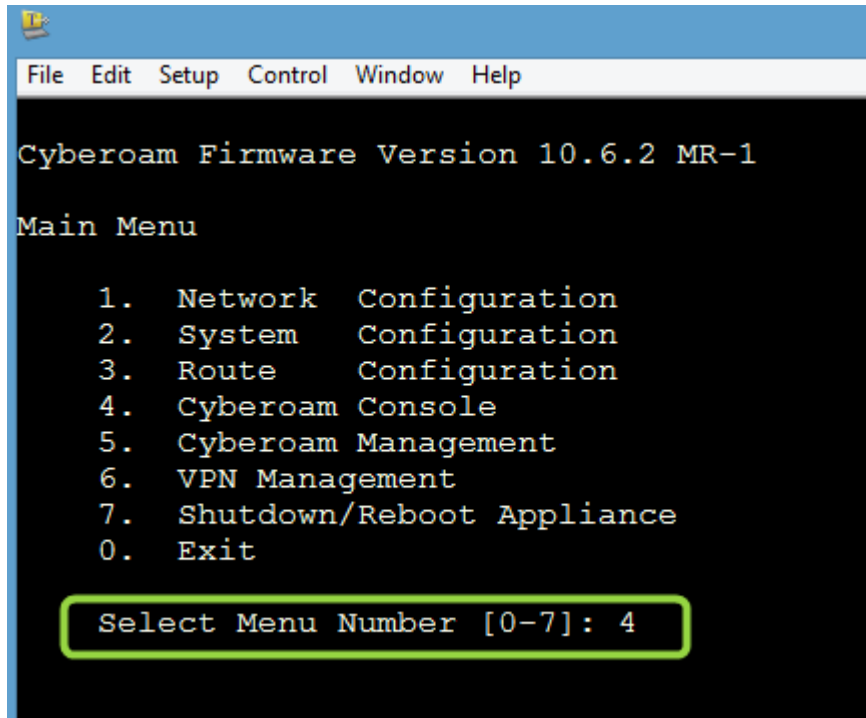
Add Bridge Add Alias Add VLAN Add LAG Delete

	Interface Name	Interface Type	Status	IP Address	Type	Zone Name	MAC Address	MSS	MTU
	PortA	Physical	Connected, 1000 Mbps - Full Duplex	10.13.0.199/255.255.255.0	Static	LAN	00:02:B6:44:64:D4	1460	1500
	PortB	Physical	Connected, 1000 Mbps - Full Duplex	172.20.20.255/255.255.255.255	Static	UFB_Physical	00:02:B6:44:64:D5	1452	1492
	PortB.10	VLAN	Connected, 1000 Mbps - Full Duplex	203.21.34.2/255.255.255.255	PPPoE	WAN	00:02:B6:44:64:D5	-	-
	PortC	Physical	Disabled	N/A	N/A	Unbound	00:02:B6:44:64:D6	1460	1500
	PortD	Physical	Disabled	N/A	N/A	Unbound	00:02:B6:44:64:D7	1460	1500
	PortE	Physical	Disabled	N/A	N/A	Unbound	00:02:B6:44:64:D8	1460	1500
	PortF	Physical	Disabled	N/A	N/A	Unbound	00:02:B6:44:64:D9	1460	1500
	PortG	Physical	Disabled	N/A	N/A	Unbound	00:02:B6:44:64:DA	1460	1500
	PortH	Physical	Disabled	N/A	N/A	Unbound	00:02:B6:44:64:DB	1460	1500

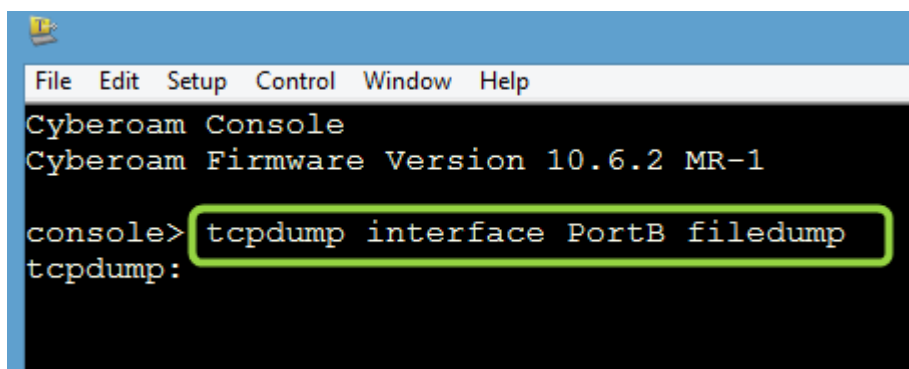
Appendix A: What to do if there's no connectivity

If you have problems there are a number of ways to fault find. By far the easiest is to packet capture & inspect in Wireshark.

SSH into the device with admin credentials & choose option 4 to get to the CLI.



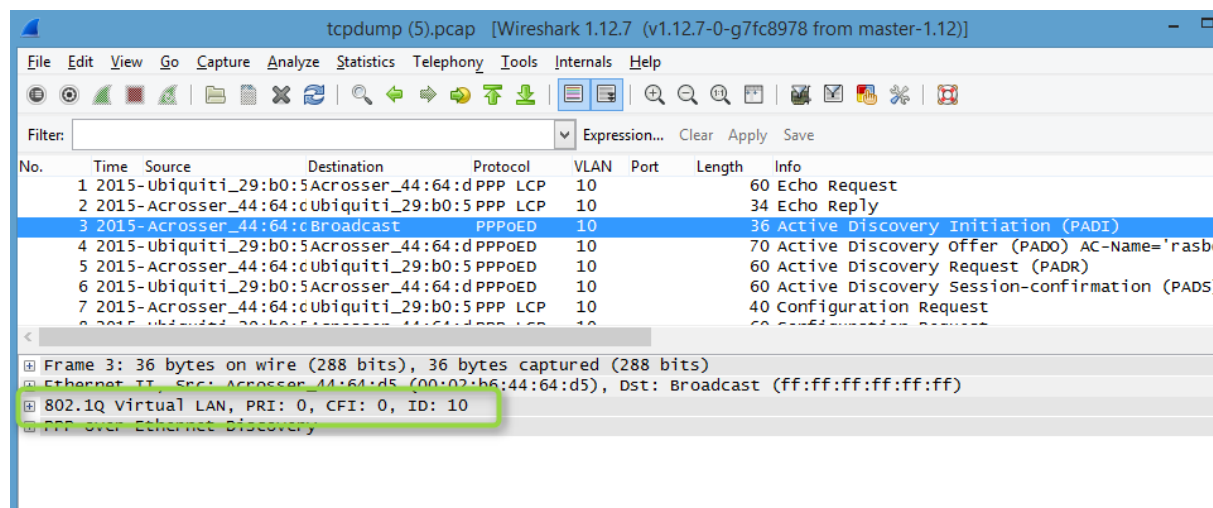
Run tcpdump to listen on the physical port that is connected to the ONT E.g. for PortB run the command 'tcpdump interface PortB filedump'



CTRL-C to break the operation.

You can then retrieve a pcap file from the web UI of the firewall by appending /documents/tcpdump.pcap to the IP address e.g.
<http://172.16.16.16/documents/tcpdump.pcap>. Download & inspect in Wireshark

Look for PADI packets, this is the firewall broadcasting for a PPPoE server to respond. Check the VLAN ID is present in the details & Appendix B below.



Appendix B: What to do if there's still no connectivity

If you confirm the 802.1Q VLAN tags are present in the capture but it's still not working try switching off firewall acceleration at the command line.

```
console>
console>
console> cyberoam firewall-acceleration disable
Firewall Acceleration Disabled Successfully.
console>
console>
```

Re-enable if there's no affect as it will detriment performance. ***However if it does resolve the issue talk to Snapper Tech support about further options.***