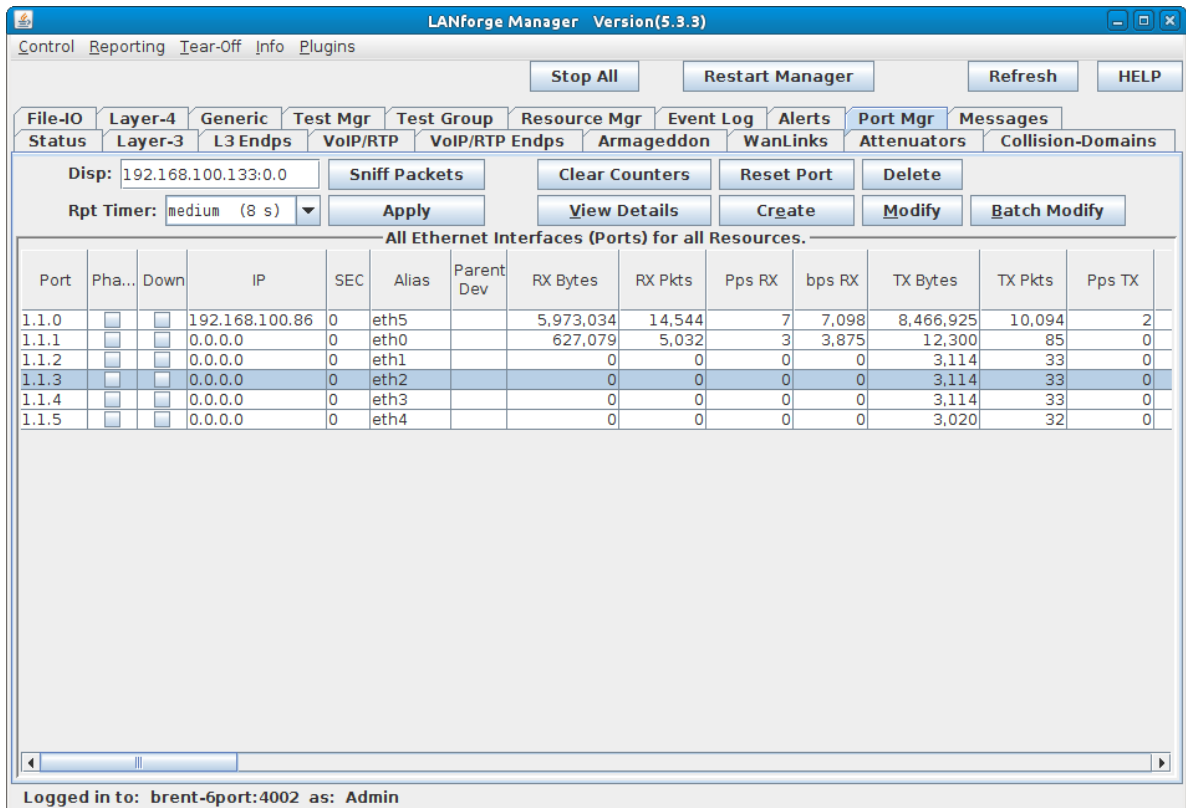


Generating Traffic for DSLAM Testing

Goal: Set up and run traffic to a DSLAM system as shown in the [CT570 product description](#).

Please refer to the diagram in the CT570 link above. In this test scenario, the LANforge-FIRE Core is one interface on a LANforge system. The LANforge-FIRE Edge is another interface on the same LANforge system. The LF Core interface is connected to the upstream DSLAM interface either directly or through a switch. The CPEs are connected to a multi-port VLAN switch which has a VLAN trunk that is connected to the LF Edge. Traffic is sent between the LF Core and the LF Edge to achieve end-to-end network traffic testing of the DSLAM system.

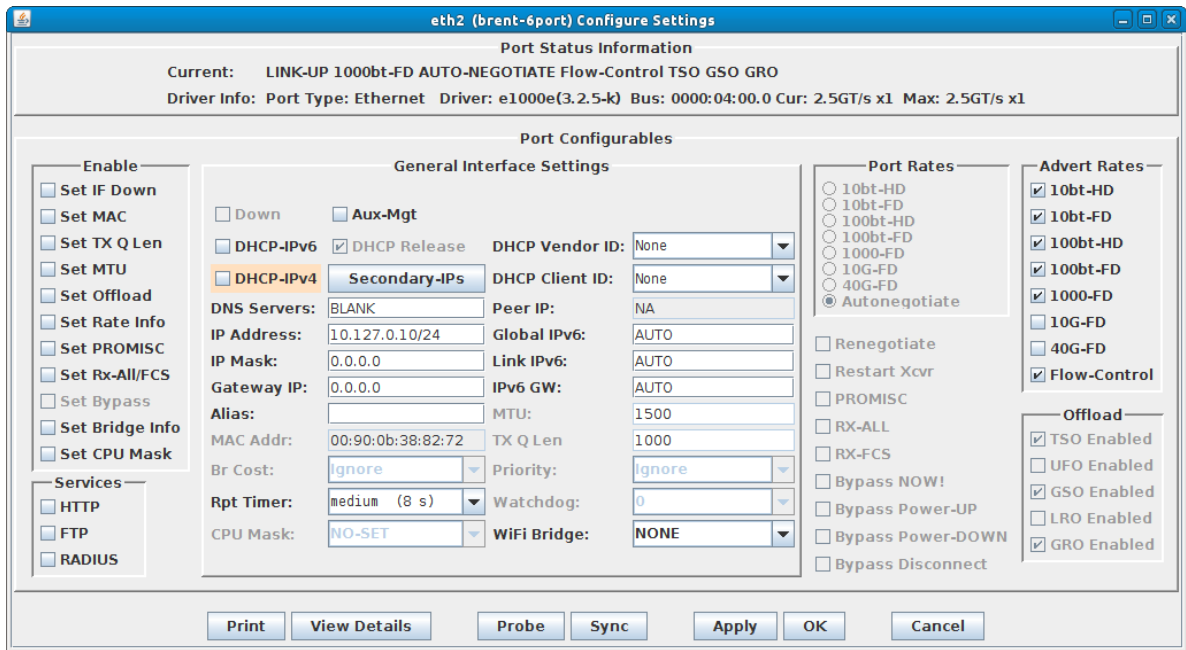
1. Connect one LANforge-FIRE interface to the DSLAM upstream internet connection. This is the LF Core part of the diagram mentioned above.
2. Set up the LANforge port so that it has a valid IP address and IP mask.
 - A. Go to the Port Manager



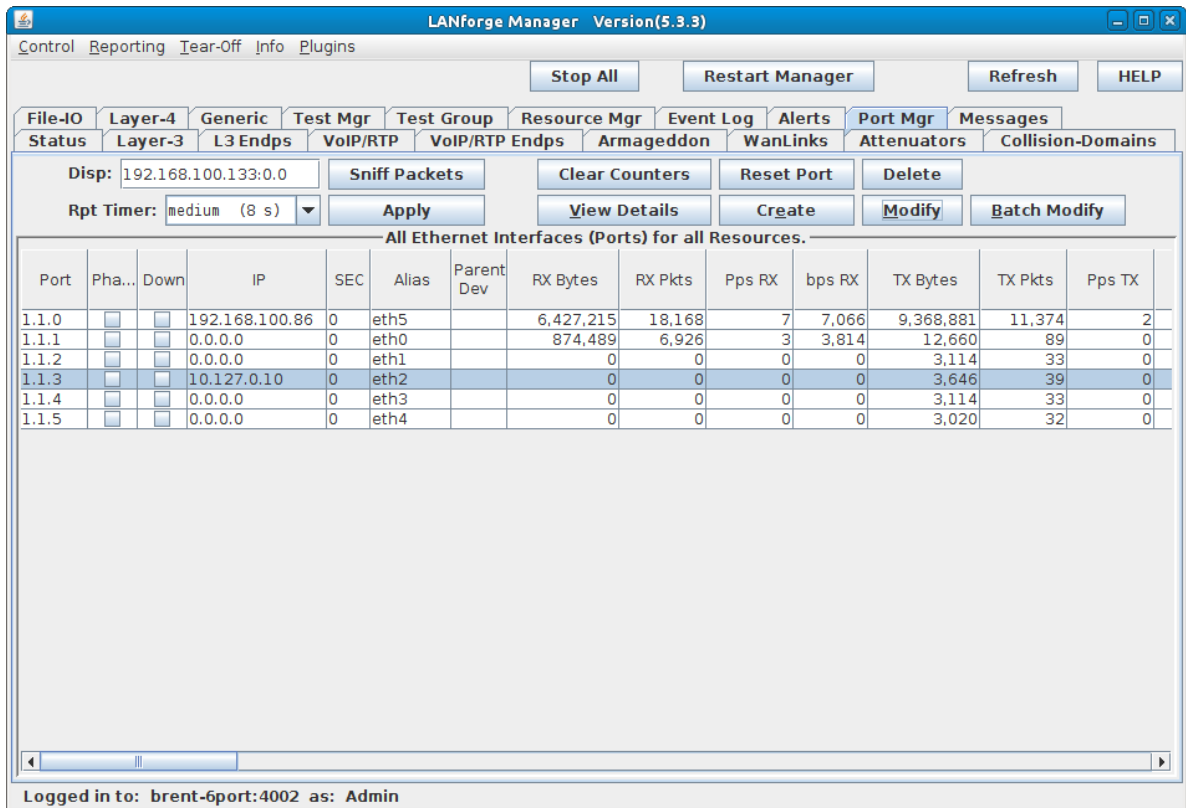
The screenshot shows the LANforge Manager interface, specifically the Port Manager section. The window title is "LANforge Manager Version(5.3.3)". The interface includes a menu bar with options like Control, Reporting, Tear-Off, Info, and Plugins. Below the menu bar are several buttons: Stop All, Restart Manager, Refresh, and HELP. There are also tabs for File-I/O, Layer-4, Generic, Test Mgr, Test Group, Resource Mgr, Event Log, Alerts, Port Mgr, and Messages. The Port Mgr tab is active, showing a table of Ethernet interfaces for all resources. The table has columns for Port, Phase, Down, IP, SEC, Alias, Parent Dev, RX Bytes, RX Pkts, Pps RX, bps RX, TX Bytes, TX Pkts, and Pps TX. The table contains 6 rows of data, with the first row (1.1.0) having an IP of 192.168.100.86 and the others having 0.0.0.0. The interface also includes a search bar with "Disp: 192.168.100.133:0.0" and a "Rpt Timer: medium (8 s)" dropdown. There are several action buttons like Sniff Packets, Clear Counters, Reset Port, Delete, Apply, View Details, Create, Modify, and Batch Modify. At the bottom, it shows "Logged in to: brent-6port:4002 as: Admin".

Port	Pha...	Down	IP	SEC	Alias	Parent Dev	RX Bytes	RX Pkts	Pps RX	bps RX	TX Bytes	TX Pkts	Pps TX
1.1.0	<input type="checkbox"/>	<input type="checkbox"/>	192.168.100.86	0	eth5		5,973,034	14,544	7	7,098	8,466,925	10,094	2
1.1.1	<input type="checkbox"/>	<input type="checkbox"/>	0.0.0.0	0	eth0		627,079	5,032	3	3,875	12,300	85	0
1.1.2	<input type="checkbox"/>	<input type="checkbox"/>	0.0.0.0	0	eth1		0	0	0	0	3,114	33	0
1.1.3	<input type="checkbox"/>	<input type="checkbox"/>	0.0.0.0	0	eth2		0	0	0	0	3,114	33	0
1.1.4	<input type="checkbox"/>	<input type="checkbox"/>	0.0.0.0	0	eth3		0	0	0	0	3,114	33	0
1.1.5	<input type="checkbox"/>	<input type="checkbox"/>	0.0.0.0	0	eth4		0	0	0	0	3,020	32	0

B. Modify the port connected to the DSLAM. Set a valid network IP address and IP mask.



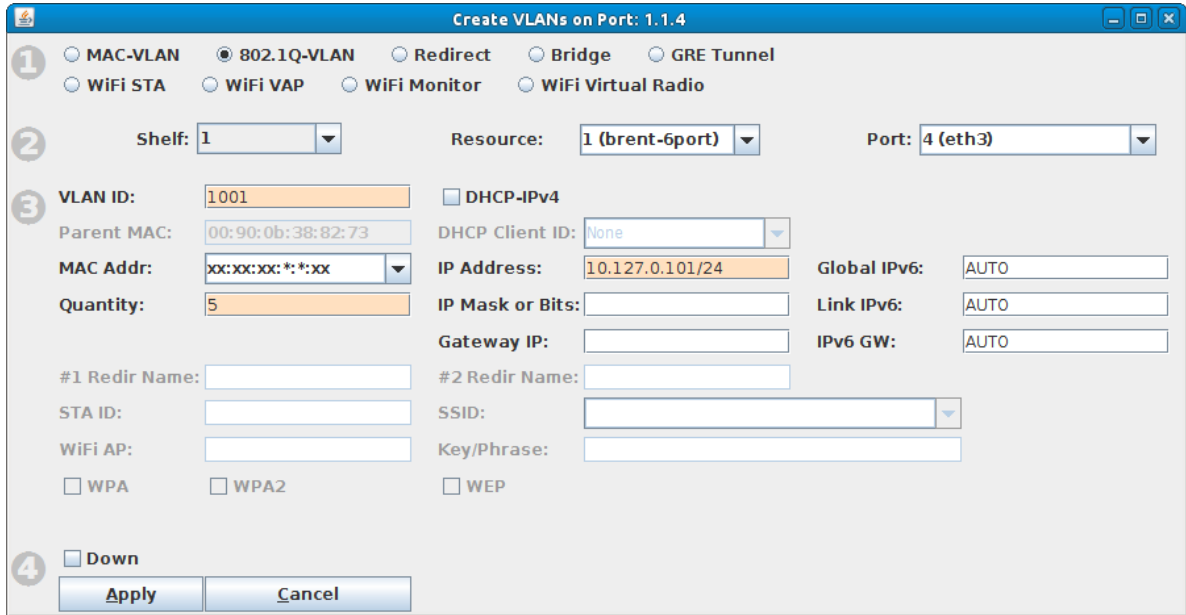
C. Verify the port configuration



For more information see [LANforge User's Guide: Ports \(Interfaces\)](#)

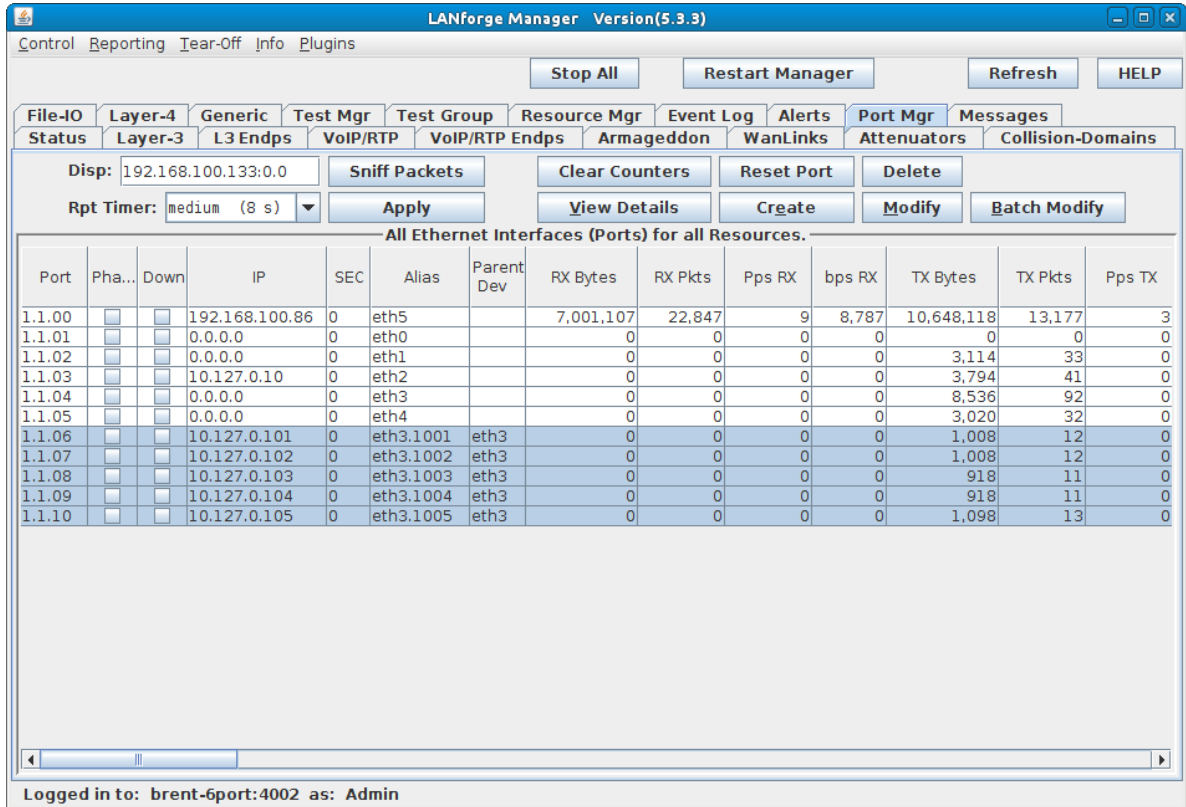
3. Set up virtual interfaces.

- A. On the **Port Mgr** tab, select the port that will connect to the multi-port switch and will also be your VLAN trunk. This is the LF Edge part of the diagram.
- B. Click the **Create** button:



- A. Select the **802.1Q-VLAN** virtual interface type
- B. The **VLAN ID** should correspond to your multi-port switch VLAN configuration
- C. Enter **Quantity** (number of virtual interfaces to be created)
- D. Enter the appropriate IP address and IP mask
- E. Click **Apply** to create the virtual interfaces

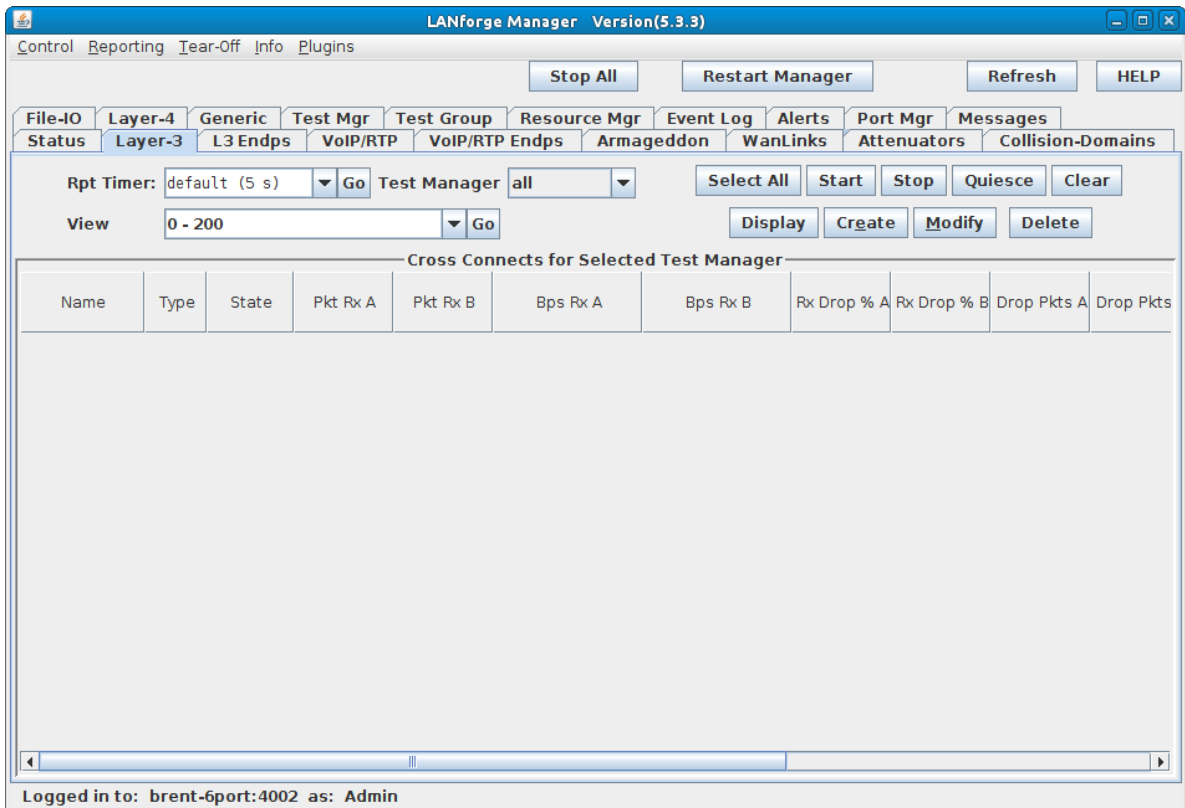
C. Verify that the virtual interfaces are created and have the correct IP assignments



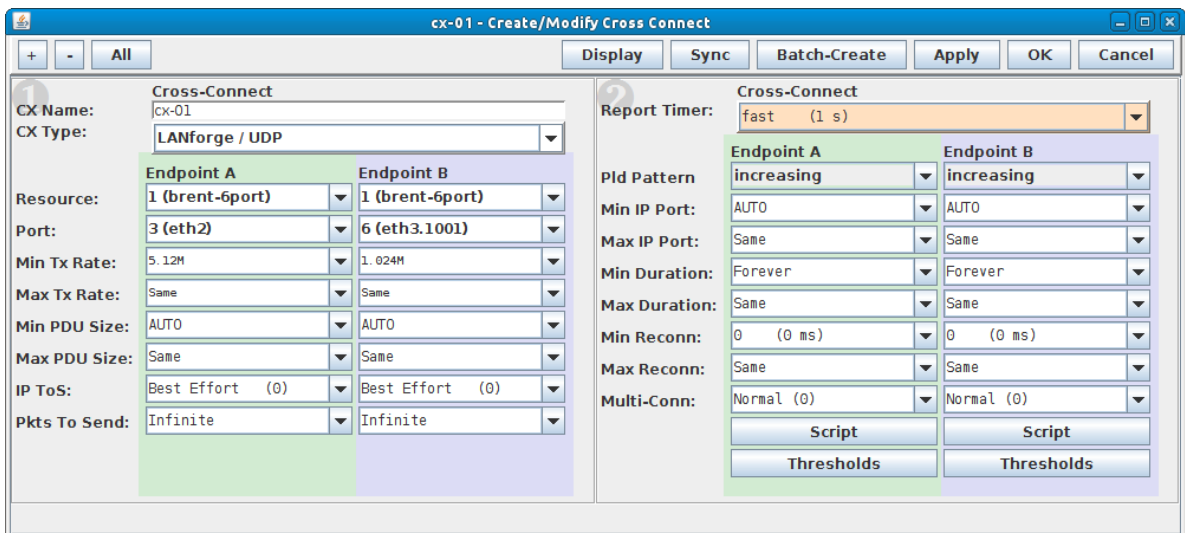
For more information see [LANforge User's Guide: Creating & Deleting Virtual Interfaces](#)

4. Create Layer-3 connections.

A. Go to the **Layer-3** tab



B. Click the **Create** button



- Fill in a connection name, select a connection type and set the report timer
- Make endpoint A the DSLAM upstream port or LF Core
- Make endpoint B the CPE downstream port or LF Edge
- You can make the TX/RX rates asymmetric for the connection to simulate how the connection would be used in a real-world scenario. Here we have about 5Mbps downstream (DSLAM to CPE) and 1Mbps upstream (CPE to DSLAM).
- Click **Apply** to create the connection

C. Create multiple connections

Layer-3 Batch Creator: cx-01

cx-02, cx-03 ... cx-05

Endp-A Resources: 1, 1 ... 1

Endp-B Resources: 1, 1 ... 1

Endp-A Ports: eth2, eth2 ... eth2

Endp-B Ports: eth3.1002, eth3.1003 ... eth3.1005

Endp-A IPs: AUTO, AUTO ... AUTO

Endp-B IPs: AUTO, AUTO ... AUTO

Quantity: 4 Number of Digits: 2 Zero Pad

Starting Name Suffix: 01 Name Increment: 1

Resource Increment A: 0 Resource Increment B: 0

Port Increment A: 0 Port Increment B: 1

IP Addr Increment A: 0 IP Addr Increment B: 0

IP-Port Increment A: 1 IP-Port Increment B: 1

Apply Close

- A. Click **Batch-Create** (located in the Layer-3 connection's Create/Modify window) to create four additional connections.
- B. Set **Quantity** to 4, **Port Increment A** to 0.
- C. Click **Apply**.

For more information see [LANforge User's Guide: Layer-3 Endpoints \(FIRE\)](#)

5. Run traffic.

A. Select the connections you want to start

LANforge Manager Version(5.3.3)

Control Reporting Tear-Off Info Plugins

Stop All Restart Manager Refresh HELP

File-IO Layer-4 Generic Test Mgr Test Group Resource Mgr Event Log Alerts Port Mgr Messages
Status Layer-3 L3 Endps VoIP/RTP VoIP/RTP Endps Armageddon WanLinks Attenuators Collision-Domains

Rpt Timer: default (5 s) Go Test Manager all Select All Start Stop Quiesce Clear

View 0 - 200 Display Create Modify Delete

Cross Connects for Selected Test Manager

Name	Type	State	Pkt Rx A	Pkt Rx B	Bps Rx A	Bps Rx B	Rx Drop % A	Rx Drop % B	Drop Pkts A	Drop Pkts
cx-01	LF/UDP	Stopped	0	0	0	0	0	0	0	0
cx-02	LF/UDP	Stopped	0	0	0	0	0	0	0	0
cx-03	LF/UDP	Stopped	0	0	0	0	0	0	0	0
cx-04	LF/UDP	Stopped	0	0	0	0	0	0	0	0
cx-05	LF/UDP	Stopped	0	0	0	0	0	0	0	0

Logged in to: brent-6port:4002 as: Admin

B. Click the **Start** button

LANforge Manager Version(5.3.3)

Control Reporting Tear-Off Info Plugins

Stop All Restart Manager Refresh HELP

File-IO Layer-4 Generic Test Mgr Test Group Resource Mgr Event Log Alerts Port Mgr Messages
Status Layer-3 L3 Endps VoIP/RTP VoIP/RTP Endps Armageddon WanLinks Attenuators Collision-Domains

Rpt Timer: default (5 s) Go Test Manager all Select All Start Stop Quiesce Clear

View 0 - 200 Display Create Modify Delete

Cross Connects for Selected Test Manager

Name	Type	State	Pkt Rx A	Pkt Rx B	Bps Rx A	Bps Rx B	Rx Drop % A	Rx Drop % B	Drop Pkts A	Drop Pkts
cx-01	LF/UDP	Run	5,132	25,783	1,023,479	5,115,936	0	0	0	0
cx-02	LF/UDP	Run	5,080	25,434	1,023,561	5,115,907	0	0	0	0
cx-03	LF/UDP	Run	5,097	25,521	1,023,467	5,115,842	0	0	0	0
cx-04	LF/UDP	Run	5,115	25,695	1,023,608	5,115,888	0	0	0	0
cx-05	LF/UDP	Run	5,150	25,520	1,023,637	5,115,729	0	0	0	0

Logged in to: brent-6port:4002 as: Admin

For more information see [LANforge User's Guide: Layer-3 Endpoints \(FIRE\)](#)