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
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:

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

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

4. Create Layer-3 connections.
A. Go to the **Layer-3** tab

B. Click the **Create** button

A. Fill in a connection name, select a connection type and set the report timer

B. Make endpoint A the DSLAM upstream port or LF Core

C. Make endpoint B the CPE downstream port or LF Edge

D. 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).

E. Click **Apply** to create the connection
C. Create multiple connections

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

   ![Image of LANforge Manager Version 5.3.3](image)

   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 B
   ---- | ----- | ------ | -------- | -------- | -------- | -------- | ----------- | ----------- | ----------- | -----------
   ox:01 | UDP   | Run    | 5,132    | 25,783   | 1,023,479 | 5,115,936 | 0           | 0           | 0           | 0           
   ox:02 | UDP   | Run    | 5,000    | 25,434   | 1,022,961 | 5,115,907 | 0           | 0           | 0           | 0           
   ox:03 | UDP   | Run    | 5,007    | 25,521   | 1,023,467 | 5,115,942 | 0           | 0           | 0           | 0           
   ox:04 | UDP   | Run    | 5,115    | 25,695   | 1,023,608 | 5,115,888 | 0           | 0           | 0           | 0           
   ox:05 | UDP   | Run    | 5,150    | 25,520   | 1,023,827 | 5,115,729 | 0           | 0           | 0           | 0           

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

   B. Click the **Start** button

   ![Image of LANforge Manager Version 5.3.3](image)

   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 B
   ---- | ----- | ------ | -------- | -------- | -------- | -------- | ----------- | ----------- | ----------- | -----------
   ox:01 | UDP   | Run    | 5,132    | 25,783   | 1,023,479 | 5,115,936 | 0           | 0           | 0           | 0           
   ox:02 | UDP   | Run    | 5,000    | 25,434   | 1,022,961 | 5,115,907 | 0           | 0           | 0           | 0           
   ox:03 | UDP   | Run    | 5,007    | 25,521   | 1,023,467 | 5,115,942 | 0           | 0           | 0           | 0           
   ox:04 | UDP   | Run    | 5,115    | 25,695   | 1,023,608 | 5,115,888 | 0           | 0           | 0           | 0           
   ox:05 | UDP   | Run    | 5,150    | 25,520   | 1,023,827 | 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)**
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