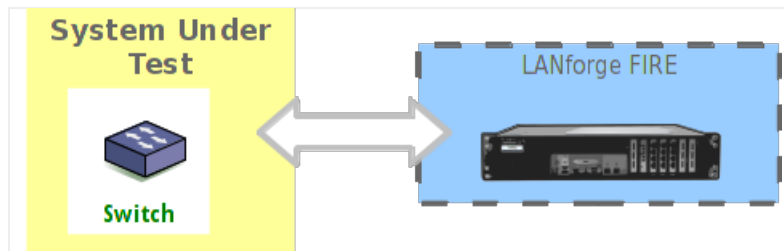


Use Dataplane to test throughput and latency at different packet sizes

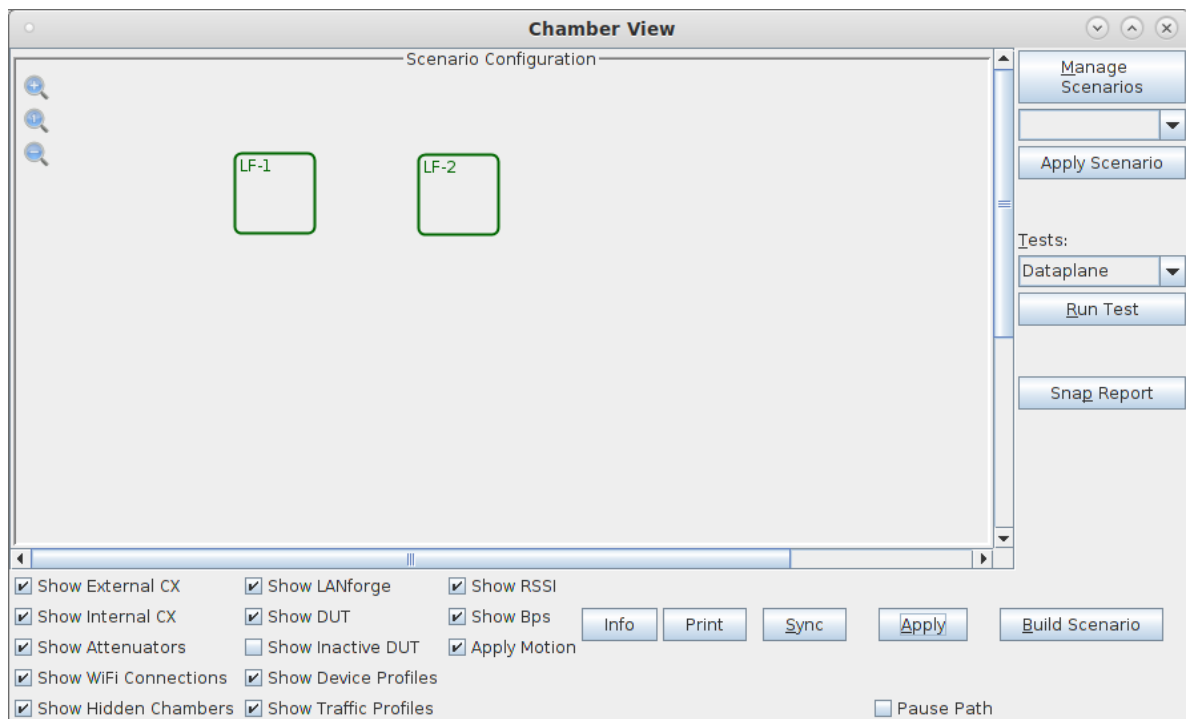
Goal: Setup and run a Dataplane test for an Ethernet network using two 10G LANforge systems.

In this test scenario, we use a system similar to the LANforge CT503-10g. The DUT is just a looped-back Ethernet cable. A real-world use of this test in the lab might have the DUT be a router, firewall, switch, or LAN. A field deployment could have one LANforge system at two different end points of a Wide Area Network. This feature requires LANforge version 5.4.1 or higher.



1. Use Chamber View to launch Dataplane test.

A. Open Chamber View by clicking on the 'Chamber View' button in the LANforge-GUI. You are welcome to build a scenario, but for this particular test, a scenario is not required.



- B. Select the **Dataplane** test and click **Run Test**. You should see the Dataplane Test configuration window pop up. It will remember the last configuration for most fields. Select the two 10G ports and the combinations of traffic types and packet sizes you wish to send:

The screenshot shows the 'Dataplane Test' configuration window with the 'Settings' tab selected. The window is divided into several sections for configuring the test parameters.

- Selected DUT:** A dropdown menu.
- Downstream/WiFi Port:** A dropdown menu showing '1.2.2 eth2'.
- Rate:** A dropdown menu showing '10gbps'.
- Path Loss:** A text input field showing '10'.
- Duration:** A dropdown menu showing '15 sec (15 s)'.
- Upstream Port:** A dropdown menu showing '1.2.3 eth3'.
- Opposite Rate:** A dropdown menu showing '56kbps'.
- Channels:** A list box with 'No-Change' selected.
- Mode:** A list box with 'Auto' selected.
- Packet Size:** A list box with '60' selected.
- Custom Packet Sizes:** A text area.
- Spatial Streams:** A list box with 'AUTO' selected.
- Security:** A list box with 'AUTO' selected.
- Bandwidth:** A list box with 'AUTO' selected.
- Traffic Type:** A list box with 'UDP' selected.
- Attenuator 1:** A dropdown menu showing 'NONE (0)'.
- Attenuator 2:** A dropdown menu showing 'NONE (0)'.
- Turntable:** A dropdown menu showing 'NONE (0)'.
- Direction:** A list box with 'DUT Transmit' selected.

At the bottom of the window, there are buttons for 'Start', 'Another Iteration', 'Pause', and 'Cancel'.

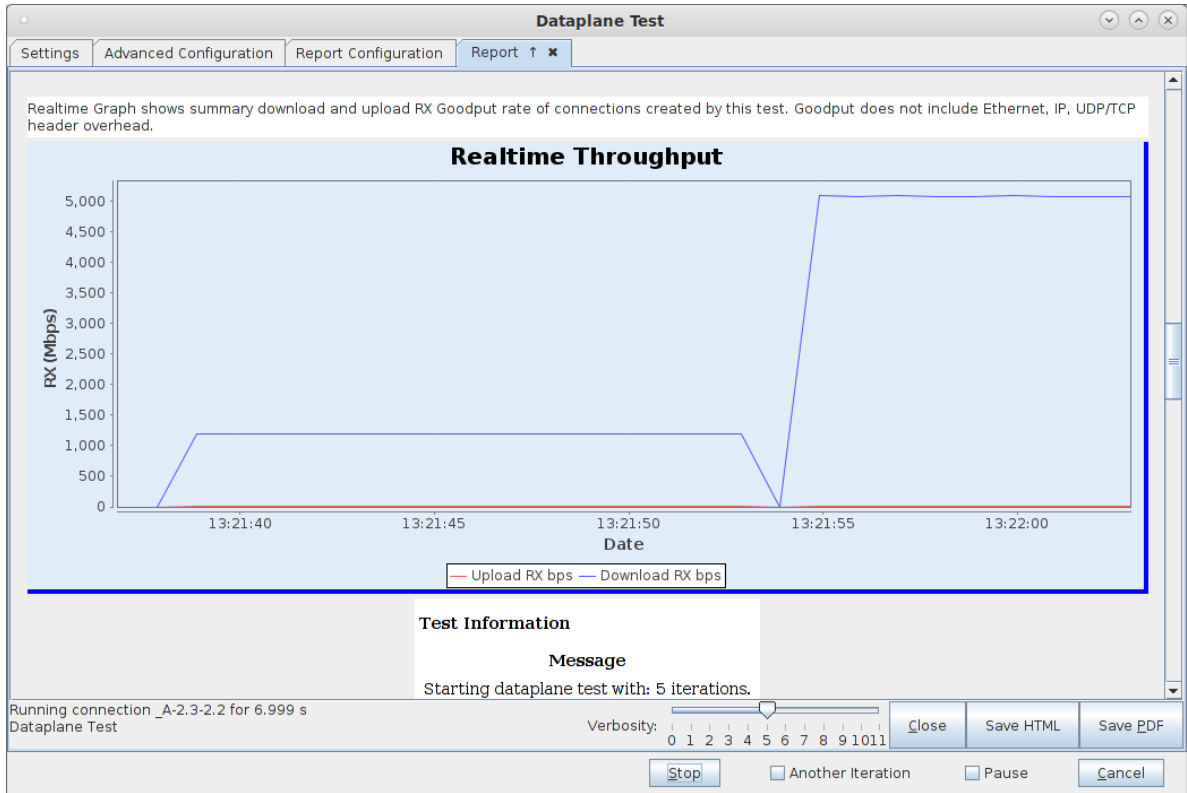
- C. You can select some details about how the report is generated on the 'Report Configuration' screen. In this case Low Level statistics is selected so that the on-wire (including IP, UDP, and Ethernet header) is reported:

The screenshot shows the 'Dataplane Test' configuration window with the 'Report Configuration' tab selected. The window is divided into several sections for configuring the report generation.

- Show Events:** A checkbox that is checked.
- Show 3s Bps Averages:** A checkbox that is unchecked.
- Show Goodput Graphs:** A checkbox that is checked.
- Show Bar Graph Labels:** A checkbox that is checked.
- Show Log Entries:** A checkbox that is unchecked.
- Show 1m Bps Averages:** A checkbox that is checked.
- Show Low-Level Graphs:** A checkbox that is checked.
- Show Realtime Chart:** A checkbox that is checked.
- Auto Save Report:** A checkbox that is unchecked.
- Min RSSI Bounds:** A dropdown menu showing '-150'.
- Max RSSI Bounds:** A dropdown menu showing '0'.
- Graph Background Color:** A text input field showing '0xE0ECF8'.
- Operator Information:** A text input field.
- Report Location:** A text input field.
- Notes to be added near the top of the report:** A text area.

At the bottom of the window, there are buttons for 'Start', 'Another Iteration', 'Pause', and 'Cancel'.

- D. When the configuration is complete, click the **Start** button (which will change to 'Stop' once start is clicked) to start the test. An interactive report window will be created and will be updated as the test runs.



- E. When the test is complete, click the **Save HTML** button to save an HTML report and generate the PDF. The PDF file will be linked from the HTML page. You can also click 'Save PDF' and the browser will be directed to open the pdf file directly. Please see this [example 10G Dataplane Report](#).