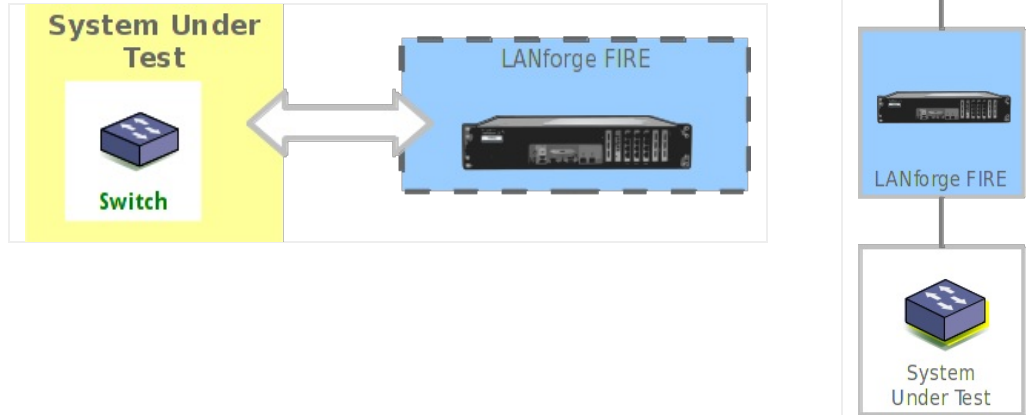


## Use Dataplane to test throughput and latency at different packet sizes

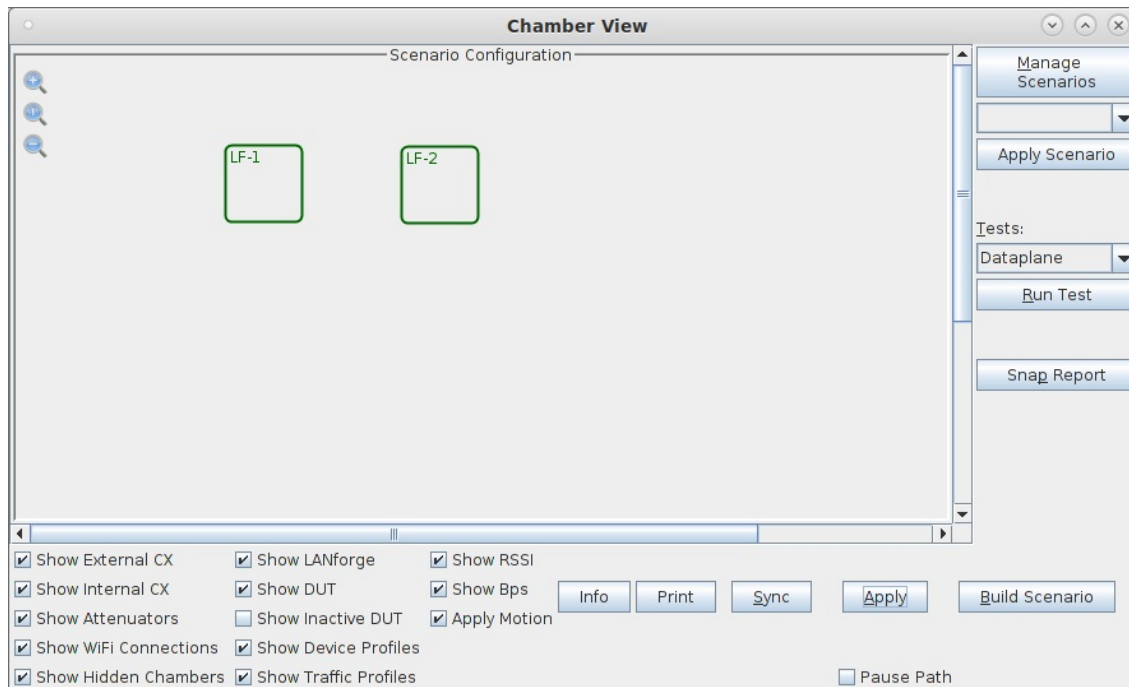
**Goal:** Setup and run a Dataplane test for an Ethernet network using two 10G LANforge systems.

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 following settings:

- Settings:** Settings, Advanced Configuration, Report Configuration
- Selected DUT:** [Empty]
- Duration:** 15 sec (15 s)
- Downstream/WiFi Port:** 1.2.2 eth2
- Upstream Port:** 1.2.3 eth3
- Rate:** 10gbps
- Opposite Rate:** 56kbps
- Path Loss:** 10
- Channels:**
  - Mode: Auto
  - 1: No-Change
  - 2: 802.11a
  - 3: 802.11b
  - 4: 802.11g
  - 5: 802.11abg
  - 6: 802.11abgn
  - 7: 802.11bgn
  - 8: 802.11bg
- Packet Size:** 60, 142, 256, 512, 1024, MTU, 4000, 9000
- Custom Packet Sizes:** [Empty]
- Spatial Streams:** AUTO
- Security:** AUTO, Open, WEP, WPA, WPA2, WPA3
- Bandwidth:** AUTO, 20, 40, 80, 160
- Traffic Type:** UDP, TCP, Arm-UDP
- Direction:** DUT Transmit, DUT Receive
- Attenuator 1:** NONE (0), [1-8 checkboxes]
- Attenuator 2:** NONE (0), [1-8 checkboxes]
- Turntable:** NONE (0), 0..+45..359

Buttons at the bottom: Start, Another Iteration, Pause, Cancel

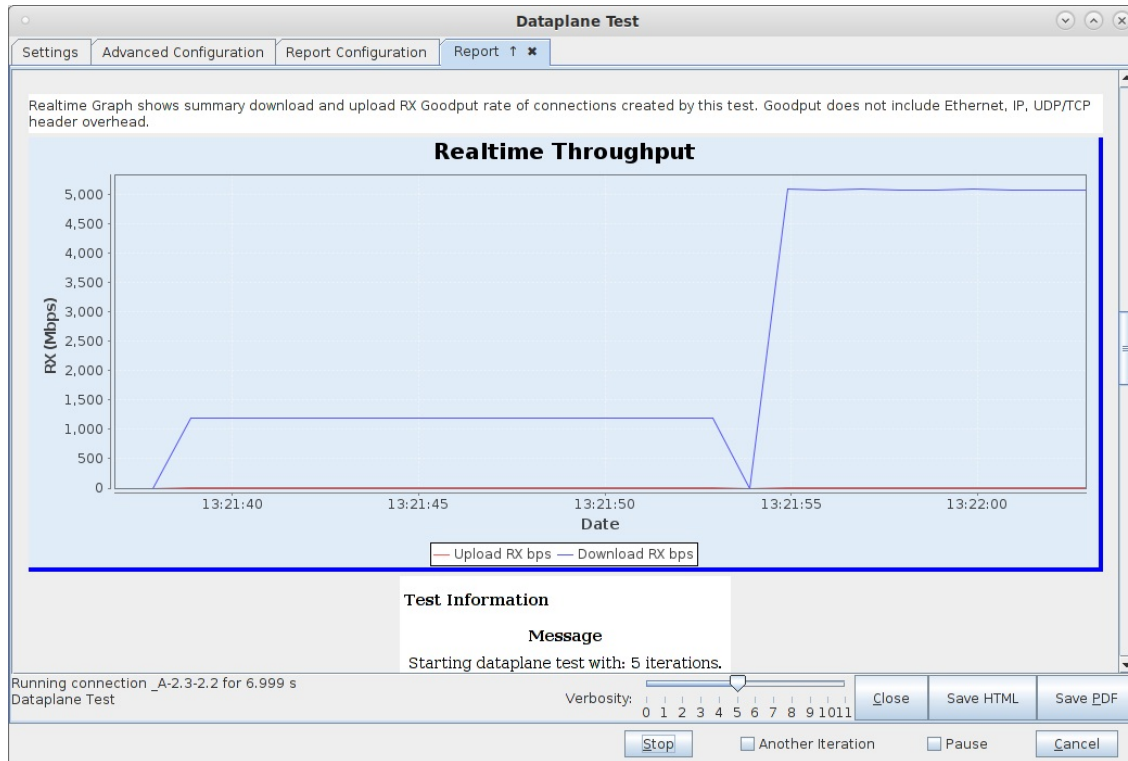
- C. You can select some details about how the report is generated on the 'Report Configuration' screen. In this case Low Level statistics is selected so that the on-wire (including IP, UDP, and Ethernet header) is reported:

The screenshot shows the 'Dataplane Test' configuration window with the 'Report Configuration' tab selected. The following options are visible:

- Show Events
- Show 3s Bps Averages
- Show Goodput Graphs
- Show Bar Graph Labels
- Show Log Entries
- Show 1m Bps Averages
- Show Low-Level Graphs
- Auto Save Report
- Show Realtime Chart
- Min RSSI Bounds:** -150
- Max RSSI Bounds:** 0
- Graph Background Color:** 0xE0ECF8
- Operator Information:** [Empty]
- Report Location:** [Empty]
- Notes to be added near the top of the report:** [Empty]

Buttons at the bottom: Start, Another Iteration, Pause, 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](#).