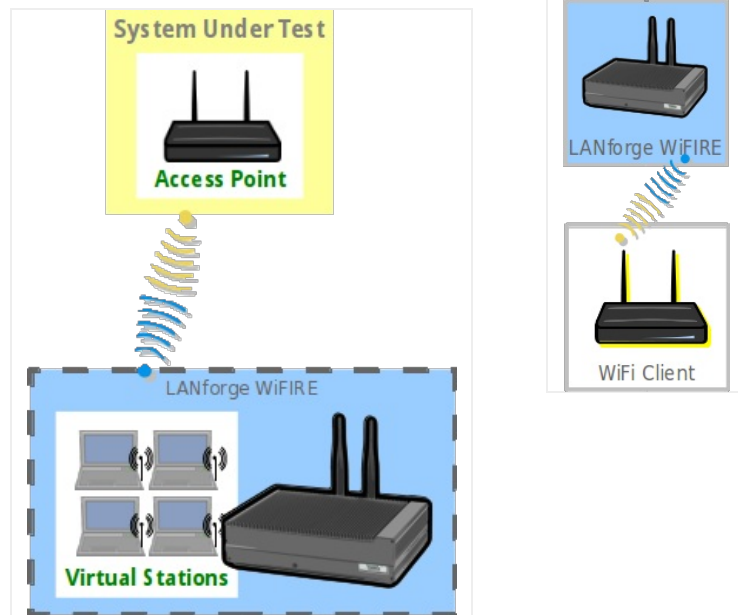


Multiple Stations with a Hunt Script

Goal: Do packet sized testing with a hunt script using multiple stations.

We will manipulate the parameters of 10 Layer 3 connections using a single hunt script. The WiFi stations will change packet size as a group by being part of a Test Group. In this scenario, we will create traffic to different upstream destinations using MAC VLANs, and the AP wired up to **eth1** of our LANforge machine. Requires a **CT-520** for only stations, or a **CT-523** if you also want a WiFi monitor station.



1. Create 10 virtual stations: in the **Port Mgr** tab, highlight radio **wiphy0** and click the Create button. In this scenario, we are using SSID jedtest.

Create VLANs on Port: 1.1.2

1 MAC-VLAN 802.1Q-VLAN Redirect Bridge Bond GRE Tunnel
 WiFi STA WiFi VAP WiFi Monitor WiFi Virtual Radio

2 Shelf: 1 Resource: 1 (brent-523) Port: 2 (wiphy0)

3 VLAN ID: DHCP-IPv4
 Parent MAC: 00:0e:8e:4e:59:2f DHCP Client ID: None
 MAC Addr: xx:xx:xx:*:xx IP Address: Global IPv6: AUTO
 Quantity: 10 IP Mask or Bits: Link IPv6: AUTO
 Gateway IP: IPv6 GW: AUTO
 #1 Redir Name: #2 Redir Name:
 STA ID: 0 SSID: jedtest
 WiFi AP: Key/Phrase:
 WPA WPA2 WEP

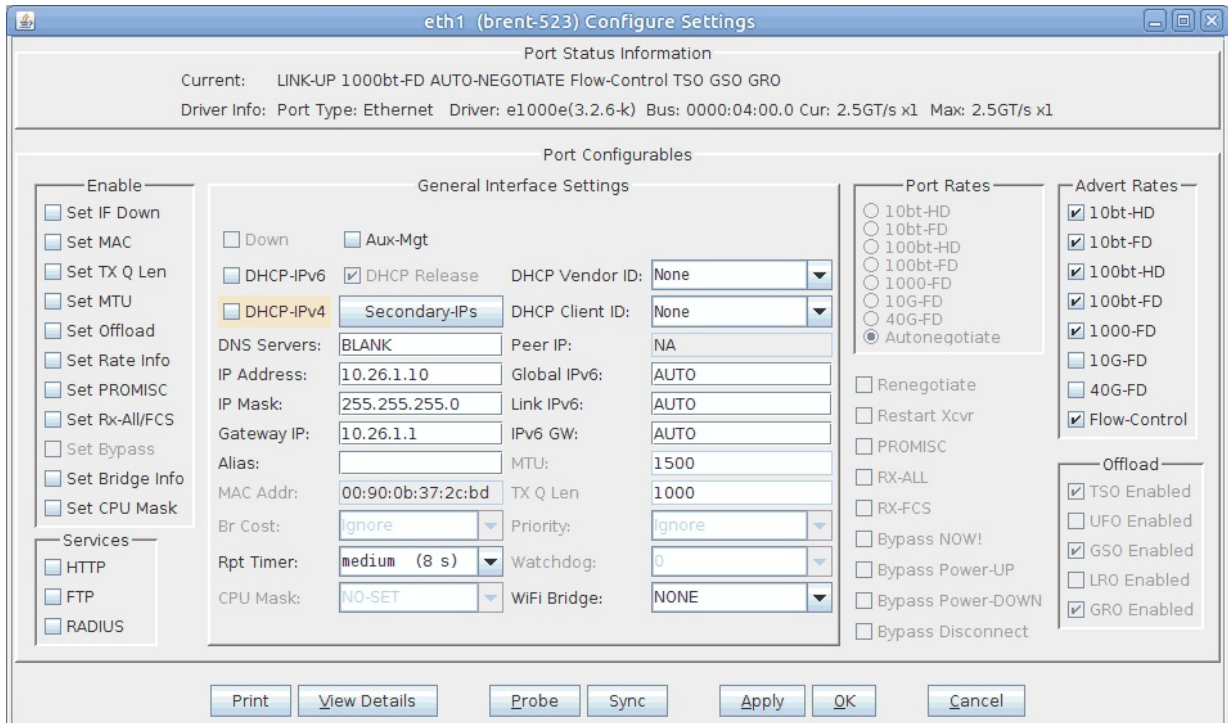
4 Down

Apply Cancel Ready

- A. Select WiFi STA
- B. Check DHCP-IPv4
- C. Quantity: 10
- D. Station ID: 0
- E. SSID: jedtest
- F. Click **Apply** and then close the window.
- G. You should see stations `sta0 - sta9`.

For more information see [creating virtual stations](#)

2. **(Simple Method)** This method only requires setting the IP on eth1. In this scenario, our upstream network is `10.26.1.0/24`. In the **Port Mgr** tab, highlight **eth1** and click **Modify**.



- A. IP: 10.26.1.10
- B. IP Mask: 255.255.255.0
- C. Gateway IP: 10.26.1.1
- D. Click **OK**.

3. **(Optional Advanced Method)** Create ten MAC VLANs on the eth1. In this scenario, our upstream network is `10.26.1.0/24`. In the **Port Mgr** tab, highlight **eth1** and click **Create**.

- A. Select MAC-VLAN
- B. Quantity: 10
- C. IP: 10.26.1.11
- D. IP Mask: 255.255.255.0
- E. Gateway: 10.26.1.1
- F. Click **Apply** and close the window.
- G. You should see 10 MAC VLANs, `eth1#0 - eth1#9`.

4. Create ten Layer-3 cross connects. We will start at 10Mbps transmit on them as a reasonable start. In general hunt scripts start low and try to work their way higher. When using more stations, set a lower starting transmit rate. In the Layer-3 tab, click Create.

- A. Name: **sta-mac-0**
- B. Endpoint-A: **eth1** (if using the advanced MAC-VLAN method, set this to **eth1#0**).
- C. Endpoint-B: sta0
- D. Type: LANforge / UDP

- E. Min Tx Rate: 10Mbps (both sides)
- F. Click **Apply**. Leave the window open.

5. Create nine more stations. Click **Batch-Create**.

Layer-3 Batch Creator: sta-mac-0

sta-mac-1, sta-mac-2 ... sta-mac-9
Endp-A Resources: 1, 1 ... 1
Endp-B Resources: 1, 1 ... 1
Endp-A Ports: eth1, eth1 ... eth1
Endp-B Ports: sta1, sta2 ... sta9
Endp-A IPs: AUTO, AUTO ... AUTO
Endp-B IPs: AUTO, AUTO ... AUTO

Quantity: Number of Digits: Zero Pad

Starting Name Suffix: Name Increment:

Resource Increment A: Resource Increment B:

Port Increment A: Port Increment B:

IP Addr Increment A: IP Addr Increment B:

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

- A. Quantity: 9
- B. Deselect **Zero Pad**.
- C. If only eth1 is used for upstream traffic, set **Port Increment A to 0**. Otherwise leave it at 1.
- D. Click **Apply** and close window.
- E. Close the Create/Modify Cross Connect window.

6. You will see ten Layer-3 connections in the Layer-3 tab.

LANforge Manager Version(5.3.6)

Control Reporting Tear-Off Info Plugins

Stop All Restart Manager Refresh HELP

Layer-4 Generic Test Mgr Test Group Resource Mgr Event Log Alerts Port Mgr vAP Stations Messages

Status Layer-3 L3 Endps VoIP/RTP VoIP/RTP Endps Armageddon WanLinks Attenuators File-I/O

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

View 0 - 500 Go 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 B
sta-mac-0	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-1	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-2	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-3	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-4	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-5	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-6	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-7	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-8	LF/UDP	Stopped	0	0	0	0	0	0	0	0
sta-mac-9	LF/UDP	Stopped	0	0	0	0	0	0	0	0

Logged in to: brent-523:4002 as: Admin

7. Create a Test Group. In the Test Group tab, click **Create**.

Create/Modify Test Group

Test Group Name: sta-mac Script Config As Totals

Cross Connects (CX)

Registered CXs

- sta-mac-0
- sta-mac-1
- sta-mac-2
- sta-mac-3
- sta-mac-4
- sta-mac-5
- sta-mac-6
- sta-mac-7
- sta-mac-8
- sta-mac-9

Free CXs

← Add Cx

Free Cx →

Apply OK Cancel

- Name: **sta-mac**
- Select **Config As Totals**.
- Highlight all the **sta-mac-x** connections and click ← **Add Cx**.
- Click **Apply**.
- Click **Script**.

F. Configure the Test Group Script.

Group Name: **sta-mac** Script Type: **ScriptHunt**

Script Name: **start-10Mbps** Group Action: **All**

Enable Script Show Reports Symmetric Loop Hide Iteration Details Hide Legend Hide CSV

Loop Count: **Forever** Script Iterations: **180 (180)** Estimated Duration: **18 m (18 m)**

Script Configuration

Use TCP MSS Show Dups Show 000 Show Attenuation

Hide Latency Distributions Hide Hunt Steps Hide Constraints

Run Duration: **5 s (5 s)** Pause Duration: **1 s (1 s)**

Starting Rate: **10M (10 Mbps)** Max Iterations: **20**

Max Drop Percent: **5% (5%)** Max-Tx-Underrun: **10% (10%)**

Max Jitter: **high (100 ms)** Max RT Latency: **500ms (500 ms)**

Threshold: **3% (30,000)**

Payload Sizes A: 60, 128, 256, 512, 1024, 1280, 1460, 1472, 1514

Payload Sizes B: 60, 128, 256, 512, 1024, 1280, 1460, 1472, 1514

Attenuations (dB): NONE

Buttons: Show Previous Report, Sync, Apply, OK, Cancel

- A. Group Name: **sta-mac**
- B. Script Type: **ScriptHunt**
- C. Script Name: **start-10Mbps**
- D. Starting Rate: **10M**
- E. Click **OK**.

G. Close the Create Test Group window.

8. Start the test. Highlight the test group and click **Start**.

LANforge Manager Version(5.3.6)

Control Reporting Tear-Off Info Plugins

Stop All Restart Manager Refresh HELP

Layer-4 Generic Test Mgr **Test Group** Resource Mgr Event Log Alerts Port Mgr vAP Stations Messages

Status Layer-3 L3 Endps VoIP/RTP VoIP/RTP Endps Armageddon WanLinks Attenuators File-IO

Rpt Timer: default (5 s) Go

Select All Start Stop Quiesce Clear

Display Create Modify Delete

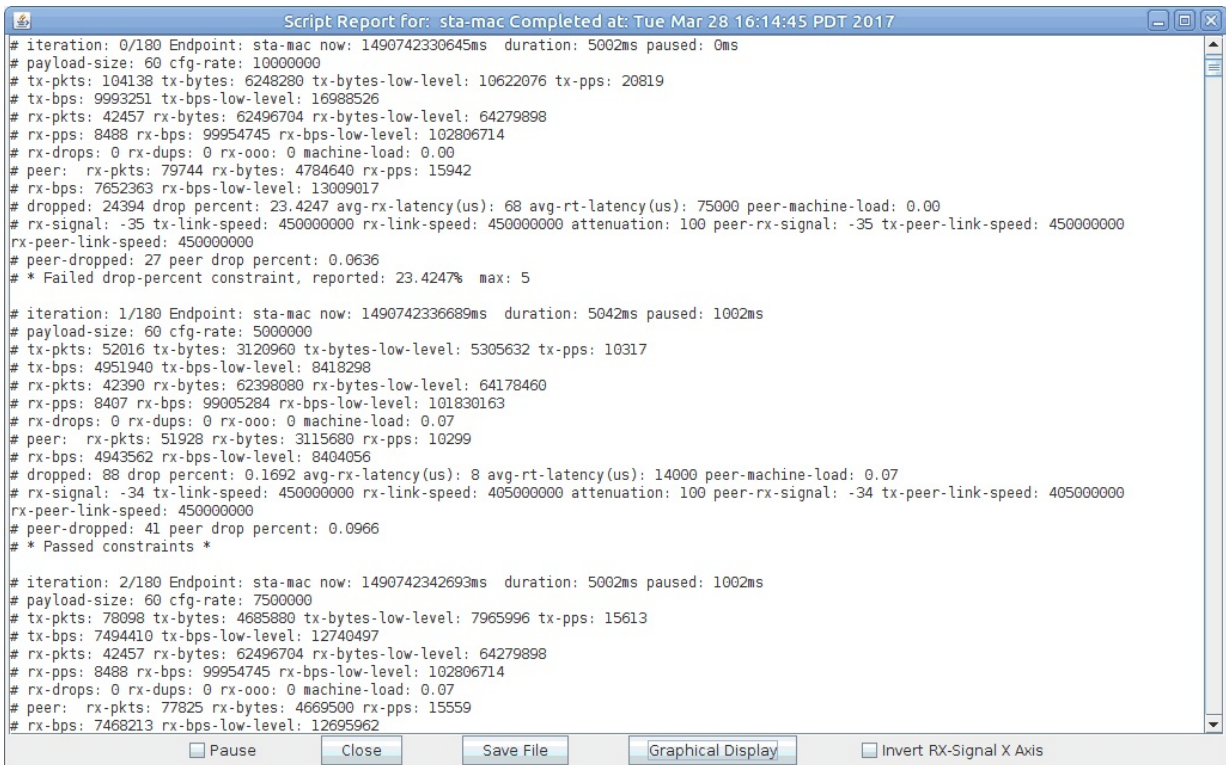
LANforge Test Groups

Name	Run	Script
sta-mac	<input checked="" type="checkbox"/>	Enabled

Cross Connects

Logged in to: brent-523:4002 as: Admin

9. You will see the script report window.



10. When the test is finished, click **Graphical Report** to see graphs.

