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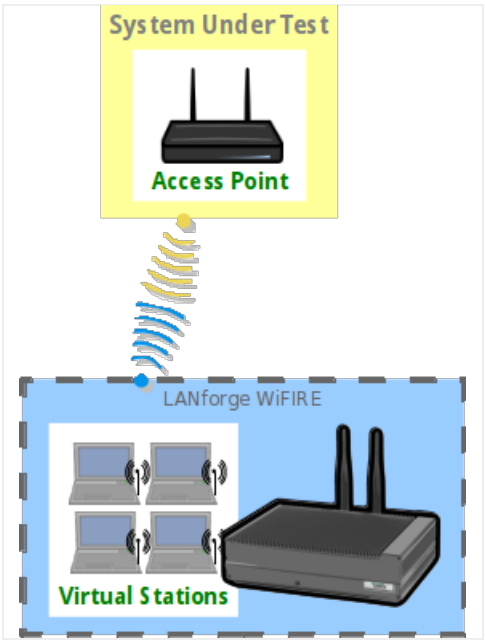
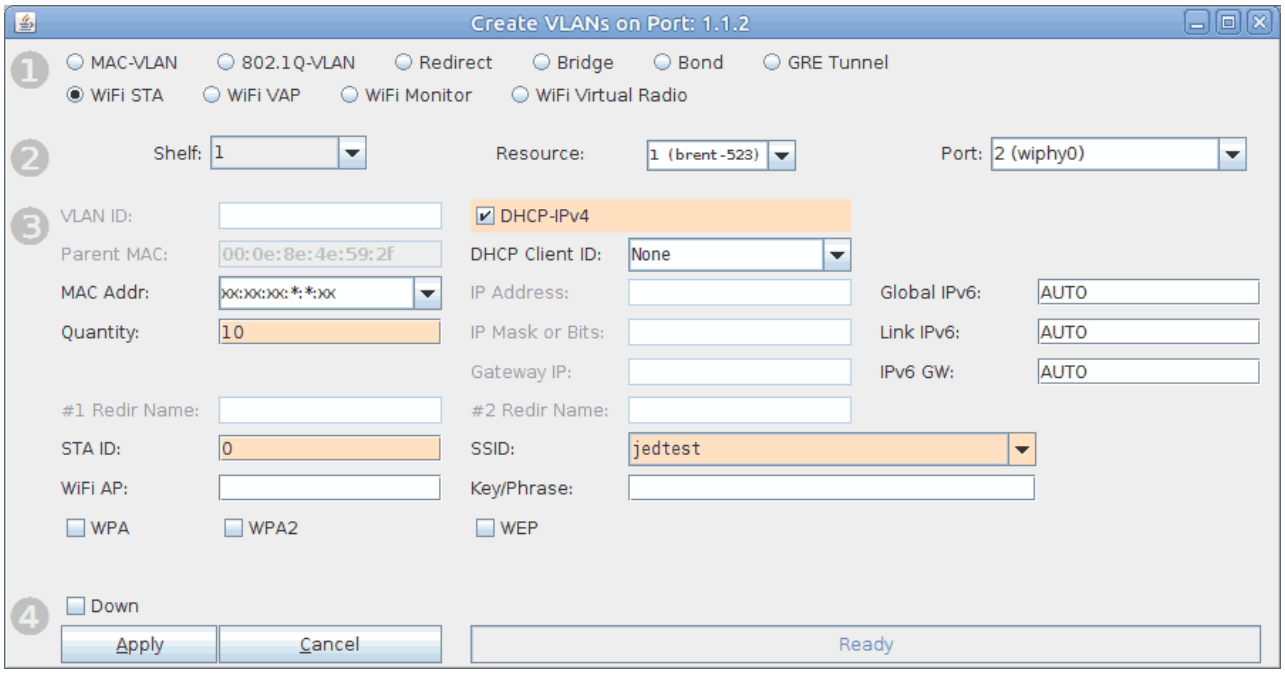
Multiple Stations with a Hunt Script

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*.



   A. Select WiFi STA

B. Check DHCP-IPv4

C. Quantity: 10

D. Station ID: 0

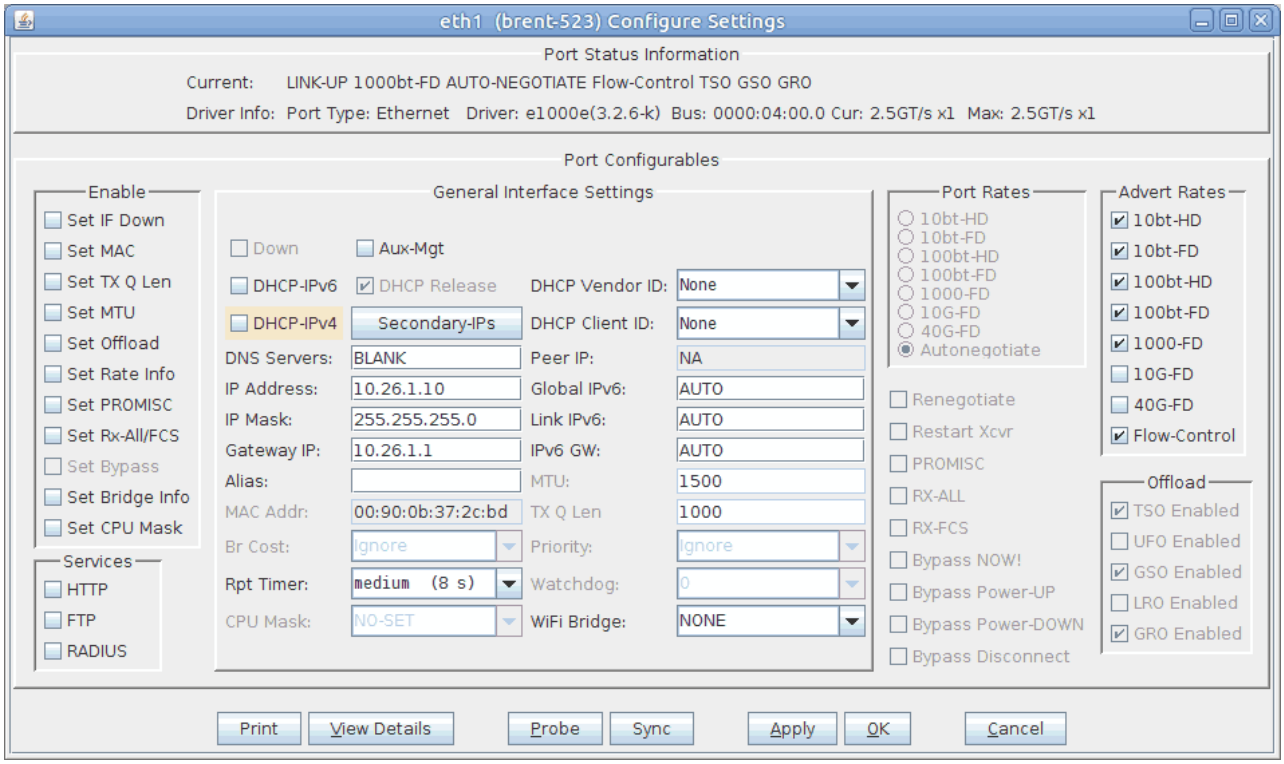
E. SSID: jedtest

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**.



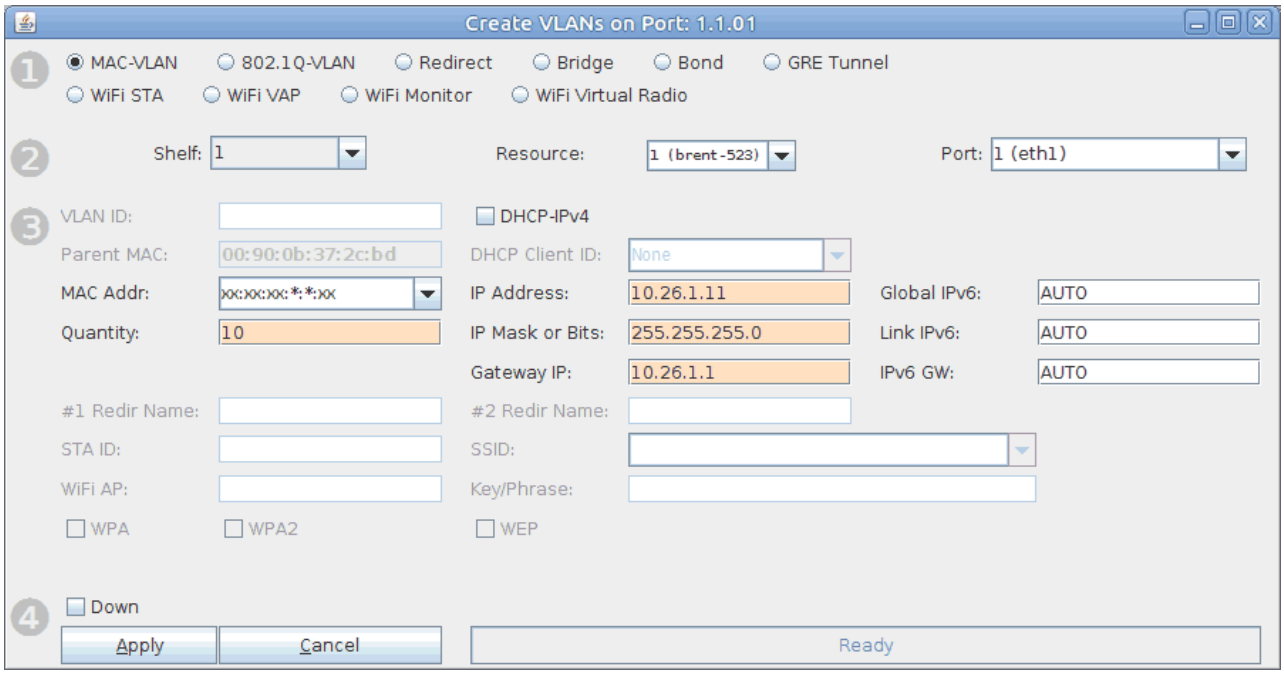
A. IP: 10.26.1.10

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

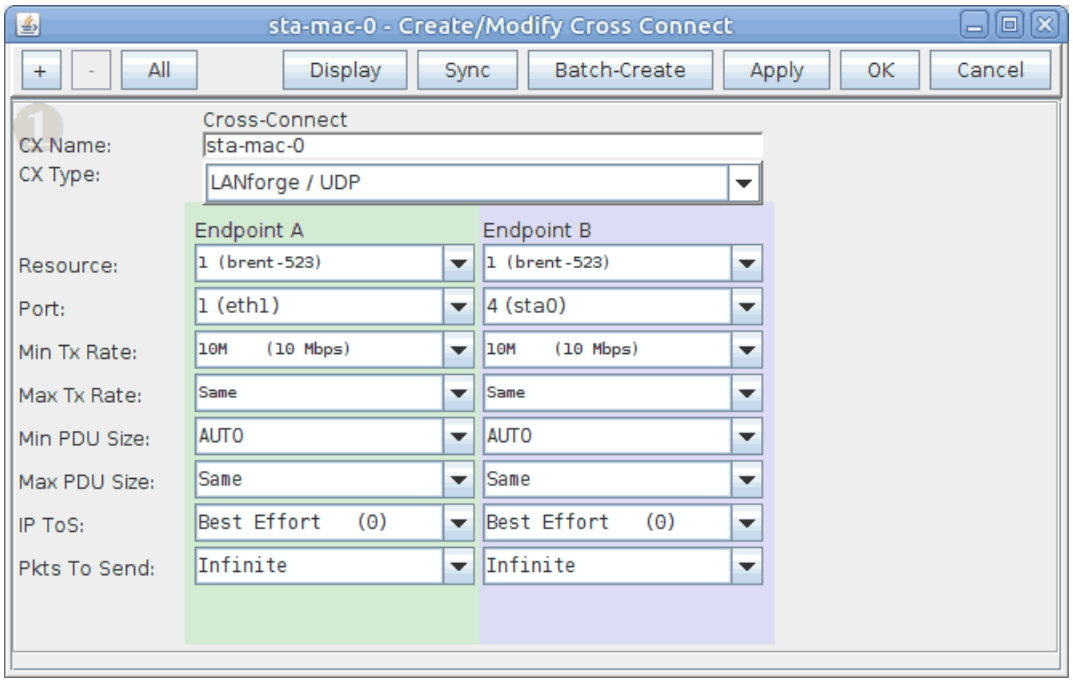
D. IP Mask: 255.255.255.0

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**.

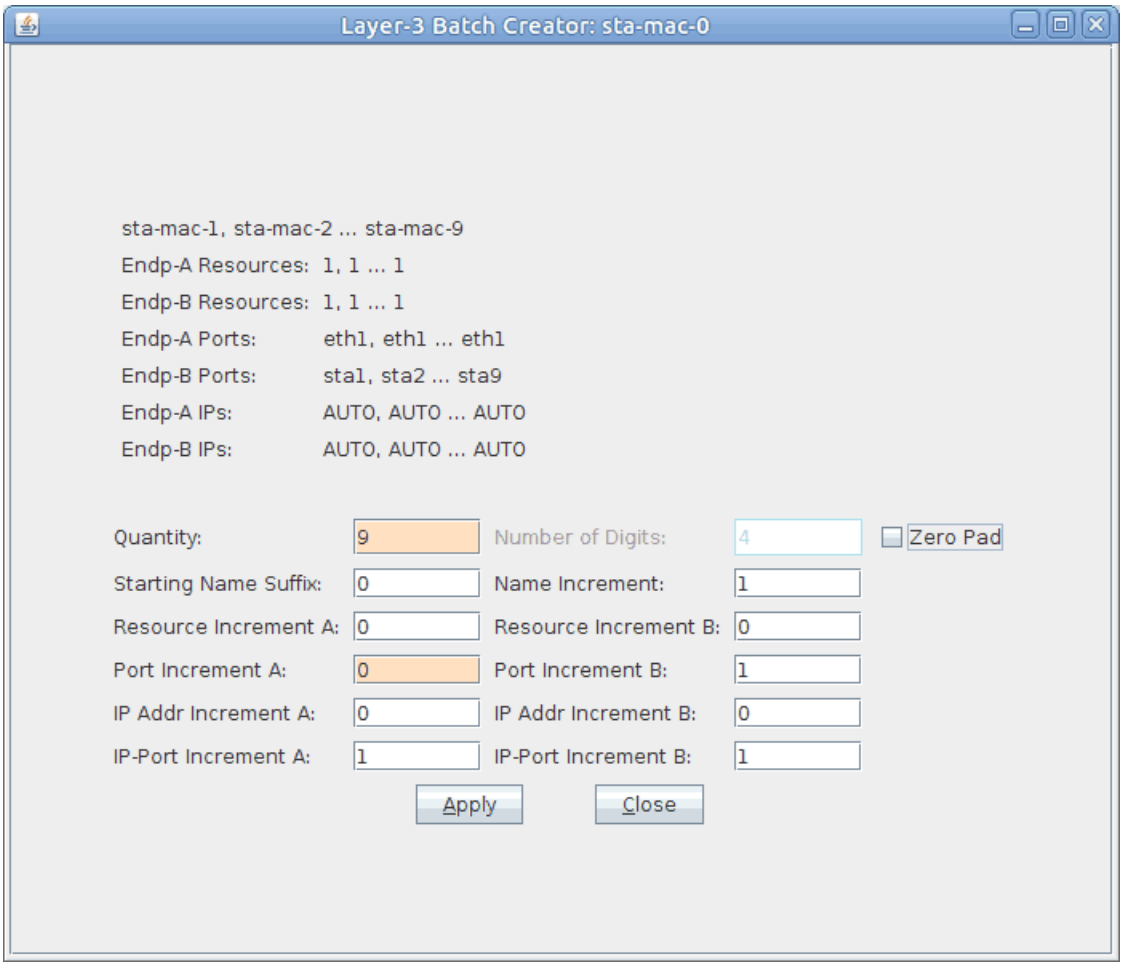
C. Endpoint-B: sta0

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**.



A. Quantity: 9

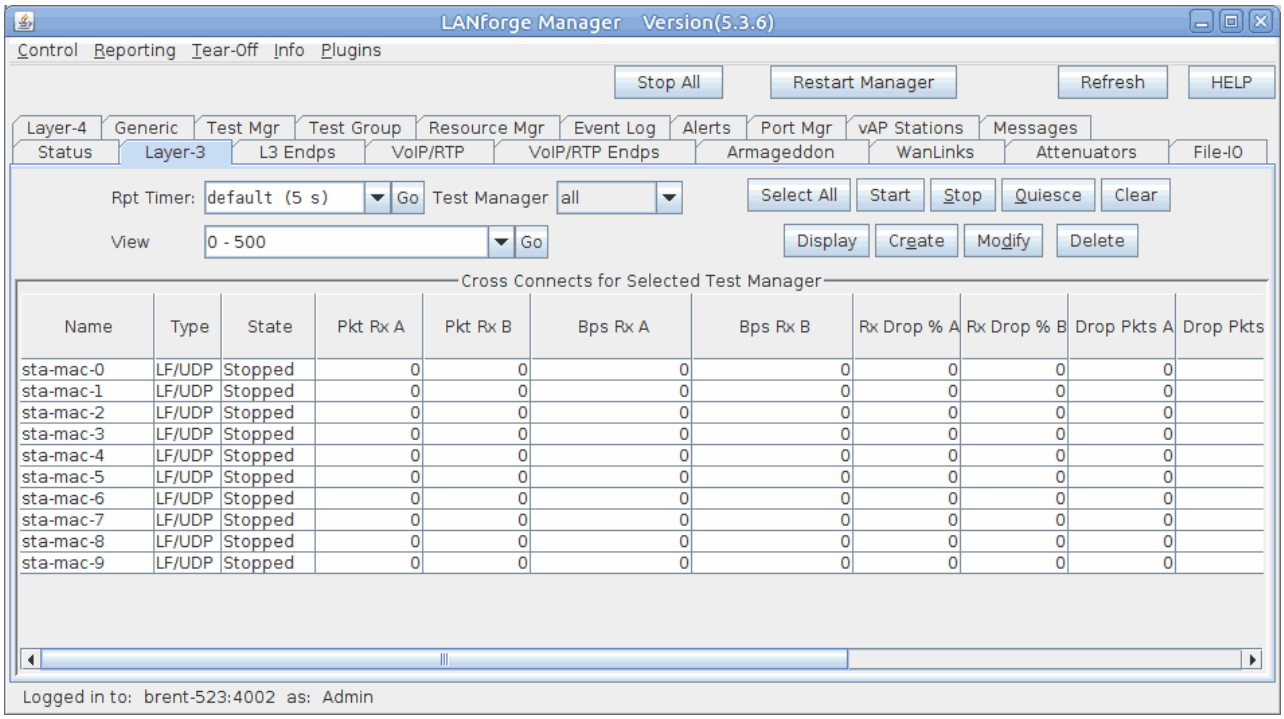
B. Deselect **Zero Pad**.

C. If only eth1 is used for upstream traffic, set **Port Increment A to 0**. Otherwise leave it at 1.

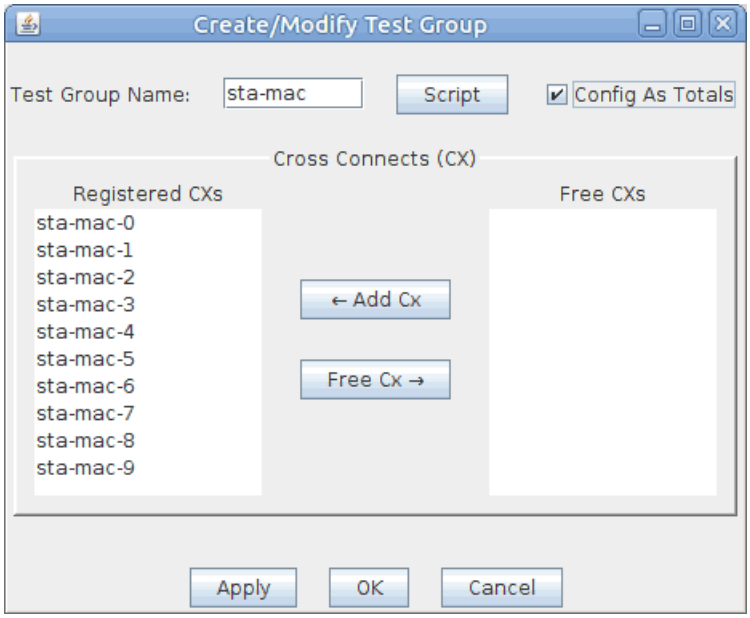
D. Click **Apply** and close window.

E. Close the *Create/Modify Cross Connect* window.

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



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



A. Name: **sta-mac**

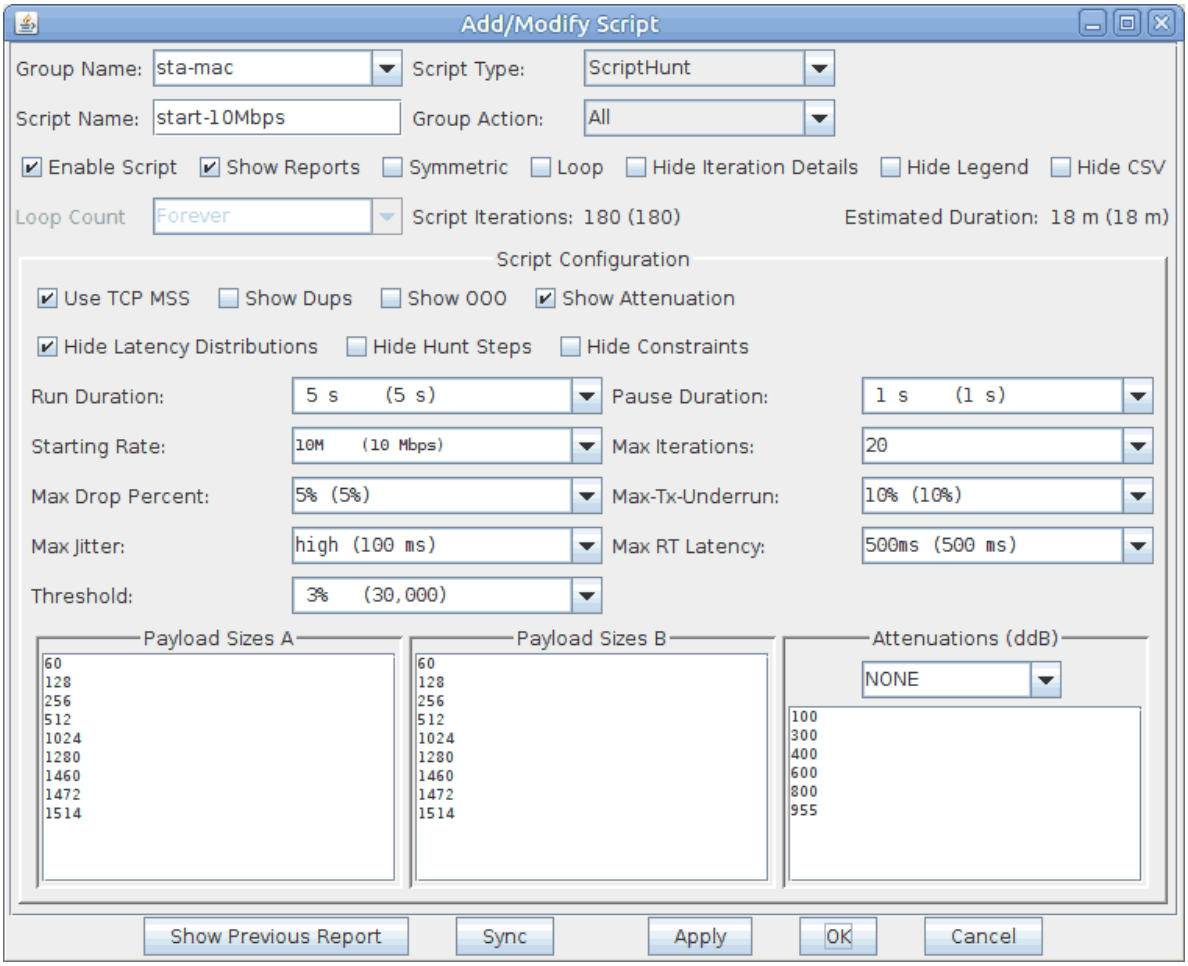
B. Select **Config As Totals**.

C. Highlight all the **sta-mac-x** connections and click **← Add Cx**.

D. Click **Apply**.

E. Click **Script**.

F. Configure the Test Group Script.



A. Group Name: **sta-mac**

B. Script Type: **ScriptHunt**

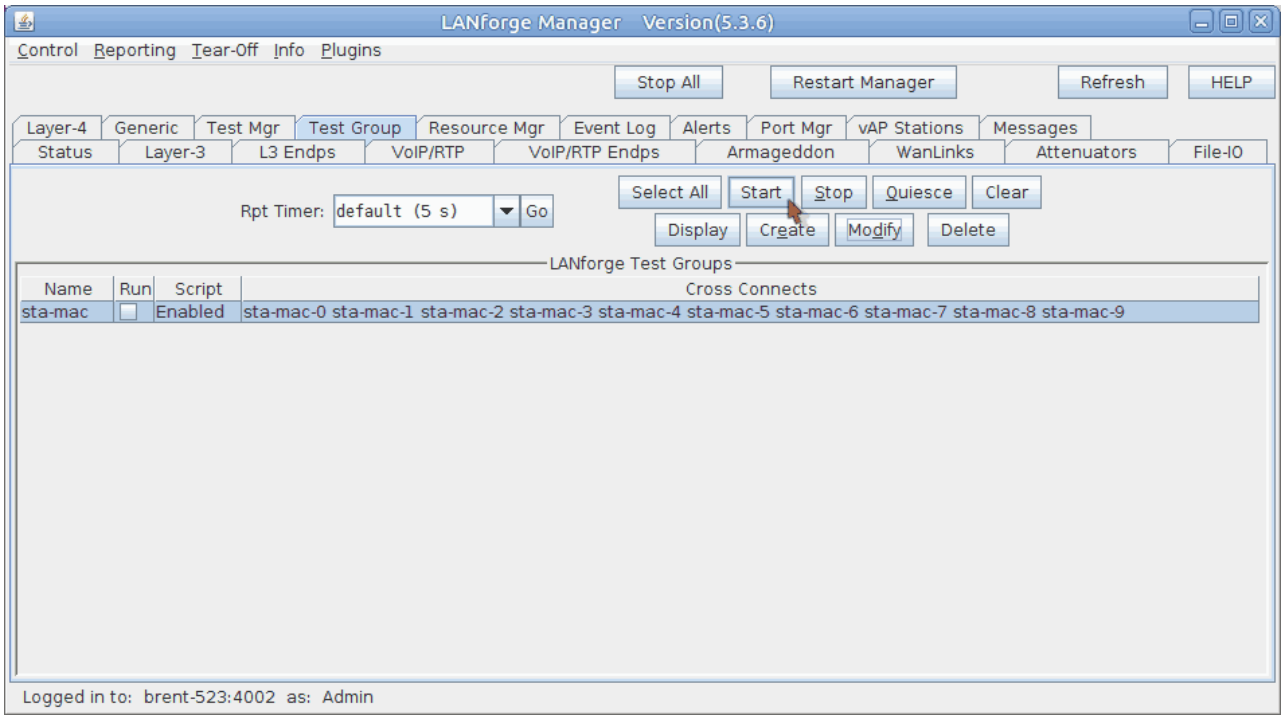
C. Script Name: **start-10Mbps**

D. Starting Rate: **10M**

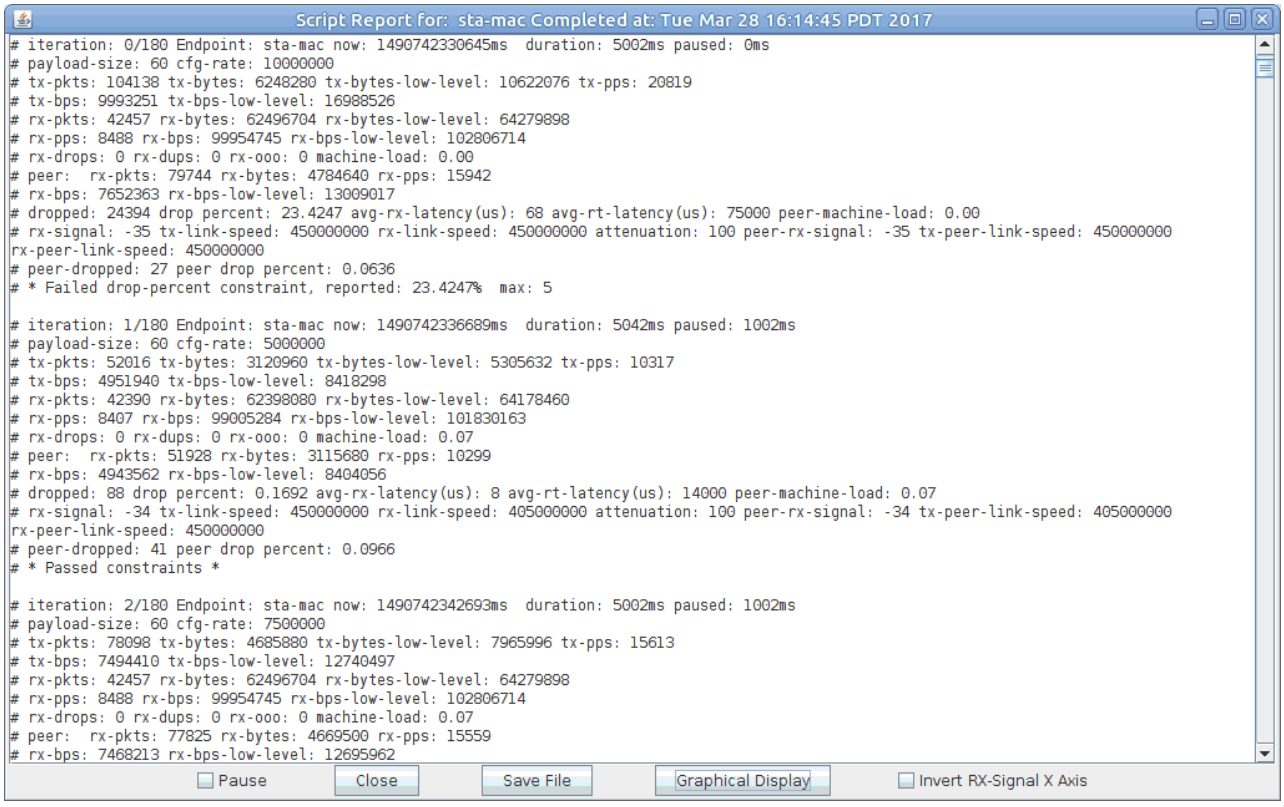
E. Click **OK**.

G. Close the Create Test Group window.

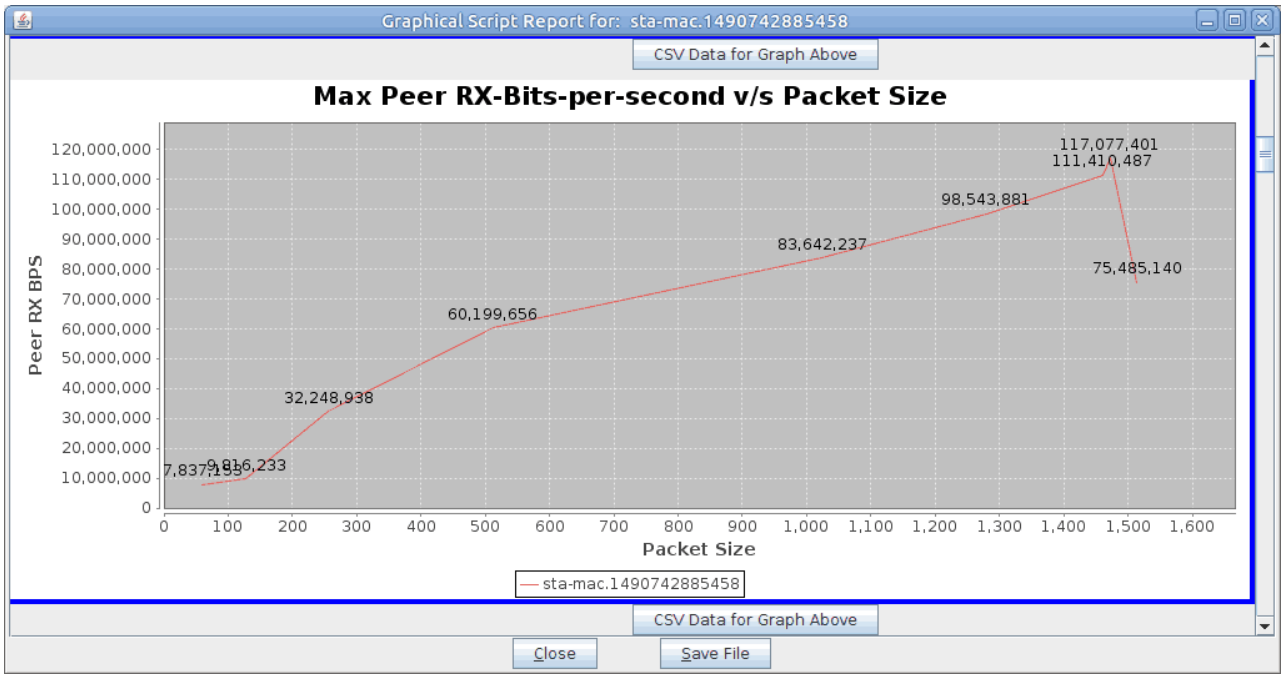
8. Start the test. Highlight the test group and click **Start**.



9. You will see the script report window.



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


Graphical Script Report for: sta-mac.1490742885458
CSV Data for Graph Above
Max Peer RX-Bits-per-second v/s Packet Size
Peer RX BPS
120,000,000
110,000,000
100,000,000
90,000,000
80,000,000
70,000,000
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0
0
100
200
300
400
500
600
700
800
900
1,000
1,100
1,200
1,300
1,400
1,500
1,600
Packet Size
117,077,401
111,410,487
98,543,881
83,642,237
75,485,140
60,199,656
32,248,938
9,816,233
7,837,153
sta-mac.1490742885458
CSV Data for Graph Above
Close
Save File