

ScriptHunt with Test Groups

Goal: Create a Test Group that uses ScriptHunt to maximize the total rate of multiple connections based on desired constraints.

ScriptHunt is a script that runs connections or 'iterates' and changes tx-rates until a maximum acceptable tx-rate is reached. This can be done for multiple payload sizes and attenuations. Using a Test Group along with ScriptHunt allows you to test multiple connections at the same time.

This cookbook assumes ports and connections are already created and configured. The following areas will be covered:

- Creating and Configuring Test Groups
- ScriptHunt setup
- Running ScriptHunt and checking results
- Using additional Test Groups for alternate tests
- 1. It is a good idea to verify connections are running as expected before getting started. The connections below are testing UDP download on 10 wireless stations.

| <u></u> | | | LANforge | Manager Version(5 | .3.4) | | | | | | |
|--|---|-----------------|-------------|----------------------|--------------|-------------------|--------------|---------------------|--|--|--|
| <u>Control</u> <u>R</u> eportin | ng <u>T</u> ear-Off <u>I</u> nfo | <u>P</u> lugins | | | | | | | | | |
| | Stop All Restart Manager Refresh HELP | | | | | | | | | | |
| Generic Test Mgr Test Group Resource Mgr Event Log Alerts Port Mgr VAP Stations Messages | | | | | | | | | | | |
| Status Lay | er-3 L3 Endps | VoIP/RTP | VoIP/RT | P Endps Armage | ddon WanL | inks Atten | uators F | ile-IO Layer-4 | | | |
| Rpt Timer: default (5 s) V Go Test Manager all V Select All Start Stop Quiesce Clear | | | | | | | | | | | |
| View | 0 - 200 | | 🔻 Go | | Displa | y Cr <u>e</u> ate | Modify | Delete | | | |
| | | | <u></u> | | | | | | | | |
| | | | -Cross Conr | lects for Selected I | est Manager- | | 1 | | | | |
| Name | Type State | Pkt Rx A | Pkt Rx B | Bps Rx A | Bps Rx B | Rx Drop % A Rx I | Drop % B Dro | op Pkts A Drop Pkts | | | |
| sta-dl-udp01 L | F/UDP Run | 0 | 112 | 0 | 55,175 | 0 | 0 | 0 | | | |
| sta-dl-udp02 L | F/UDP Run | 0 | 113 | 0 | 55,579 | 0 | 0 | 0 | | | |
| sta-dl-udp03 L | F/UDP Run | 0 | 114 | 0 | 55,609 | 0 | 0 | 0 | | | |
| sta-dl-udp04 L | F/UDP Run | 0 | 115 | 0 | 55,638 | 0 | 0 | 0 | | | |
| sta-dl-udp05 L | F/UDP Run | 0 | 116 | 0 | 55,892 | 0 | 0 | 0 | | | |
| sta-dl-udp06 L | F/UDP Run | 0 | 112 | 0 | 55,563 | 0 | 0 | 0 | | | |
| sta-dl-udp07 L | F/UDP Run | 0 | 112 | 0 | 55,563 | 0 | 0 | 0 | | | |
| sta-dl-udp08 L | F/UDP Run | 0 | 113 | 0 | 55,829 | 0 | 0 | 0 | | | |
| sta-dl-udp09 L | F/UDP Run | 0 | 113 | 0 | 55,829 | 0 | 0 | 0 | | | |
| sta-dl-udp10 L | .F/UDP Run | 0 | 113 | 0 | 55,829 | 0 | 0 | 0 | | | |
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| Logged in to: | brent-6port:4002 | 2 as: Admin | | | | | | | | | |

2. Create and Configure Test Group(s).

A. In the Test Group tab, click **Create**.

| 🛃 Cr | eate/Modify Test Group | |
|--|---|------------------|
| Test Group Name: | :-group-01 Script | Config As Totals |
| | Cross Connects (CX) | 1 |
| Registered CXs | | Free CXs |
| sta-dl-udp01 sta-dl-udp02 sta-dl-udp03 sta-dl-udp04 sta-dl-udp05 sta-dl-udp06 sta-dl-udp07 sta-dl-udp08 sta-dl-udp09 sta-dl-udp10 | $\leftarrow \text{Add Cx}$ Free Cx \Rightarrow | |
| | | |
| Ар | ply OK Car | ncel |

- A. Give the Test Group a $\ensuremath{\textbf{Name}}.$ The name used here is 'scripthunt-group-01'
- B. Under Free CXs, shift-select the connections you want in the group and clickAdd Cx.
- C. Select the **Config As Totals** checkbox. This makes it so the tx-rate is based on a combination of all connections instead of individually.
- D. The Test Group must be created before setting up the script. Click Apply to create it.

B. Click Script to open the Add/Modify Script window.

| * | | | Add/M | lodify S | Script | | | | | |
|-----------------|--|---------------------|----------------|----------|-----------------------|------------|------------------|----------|-----|--|
| Group Name: | scripthunt-gro | oup-01 🔻 | Script Type: | | ScriptHunt | - | | | | |
| Script Name: | my-script | | Group Action: | | All | - | | | | |
| 🗷 Enable Script | Show Repo | orts 🗌 Sym | nmetric 🗌 Loop | н | lide Iteration Detail | s 🗌 Hide | Legend 🗌 Hide | CSV | | |
| Loop Count | Loop Count Forever Script Iterations: 20 (20) Estimated Duration: 7 m (7 m) | | | | | | | | | |
| Г | Script Configuration (| | | | | | | | | |
| Use TCP MSS | 🗹 Use TCP MSS 🔄 Show Dups 🔄 Show 000 📄 Show Attenuation 🗹 Hide Latency Distributions 📄 Hide Hunt Steps | | | | | | | | | |
| 🗌 Hide Constra | ints | | | | | | | | | |
| Run Duration: | | 20s | | | Pause Duration: | | 1 s (1 s) | | | |
| Starting Rate: | | New Modem (56 Kbps) | | | Max Iterations: | | 20 | | | |
| Max Drop Perce | Max Drop Percent: | | | • | Max-Tx-Underrun: | | 10% (10%) | | | |
| Max Jitter: | Max Jitter: h | | high (100 ms) | | Max RT Latency: | | 500ms (500 ms) 💌 | | | |
| Threshold: | | 3% (30,0 | 00) | • |] | | | | | |
| Pay | yload Sizes A- | | Pa | yload | Sizes B | | -Attenuations (| ddB) ——— | - | |
| 1472 | | | 60 128 | | | | NONE | - | | |
| | | | 256 512 | | | 100 | L | | - 1 | |
| | | | 1024 | | | 300 400 | | | | |
| 1460 | | | | | | 600 | | | | |
| | | | 1514 | | | 955 | | | | |
| | | | | | | | | | | |
| J | | | JI | | | JI | | | | |
| | Show Pr | evious Repo | ort Sync | : | Apply | ОК | Cancel | | | |

- A. In the Script Type drop-down menu, select ScriptHunt.
 Note: Most options will be left default for now (all but Run Duration and Payload Sizes A). Below are quick summaries of the drop-down options.
- B. Run Duration: Determines how long each iteration lasts. This should be about 15-20 seconds minimum. This test will use 20s.
- C. Pause Duration: Sets how long the script waits between each iteration.
- D. Starting Rate: Sets the first tx-rate the script attempts.
- E. Max Iterations: Allows you to choose a maximum amount of times you want the script to iterate as it adjusts the rate.
- F. Max Drop Percent: Determines the acceptable range of drops for an iteration. In this case if there are more than 5% drops, the current iteration will fail and the next will attempt to make adjustments so there are less drops.
- G. Max-Tx-Underrun: With the current setting of 10%, if the actual tx-rate is running 10% slower than the attempted tx-rate, the iteration will fail.
- H. Max Jitter: Determines the acceptable maximum jitter for an iteration.
- I. Max RT Latency: This determines the maxiumum acceptable round-trip latency for an iteration.
- J. **Threshold**: If the percent difference of tx-rate from iteration to iteration reaches the value here or less, the script will finish unless there are additional payloads/attenuations to test.
- K. ScriptHunt will find the highest acceptable rate for each payload size listed in Payload Sizes A and B. The existing values are suggestions, but any desired value(s) can be entered here. If you wish to test Payload Size B, the Symmetric checkbox must be enabled. Attenuations (ddB) are tested similarly, a Candela attenuator is required and must be connected then selected in the Attenuations drop-down menu. In this specific test, ScriptHunt will just test a payload of 1472 (on endpoint A only) and no attenuations.
- L. Click **OK** to add the script.
- M. Click OK in the Create/Modify Test Group window to close it.
- 3. Start the Test Group and view the results.

A. Select the Test Group and click **Start**.

| LANforge Manager Version(5.3.4) | |
|--|---------|
| Control Reporting Tear-Off Info Plugins | |
| Stop All Restart Manager Refresh | HELP |
| Generic Test Mgr Test Group Resource Mgr Event Log Alerts Port Mgr vAP Stations Messages Status Layer-3 L3 Endps VoIP/RTP VoIP/RTP Armageddon WanLinks Attenuators File-IO L | .ayer-4 |
| Rpt Timer: default (5 s) Image: Go Select All Start Stop Quiesce Clear Display Create Modify Delete | |
| LANforge Test Groups | |
| Name Run Script Cross Connects | |
| scripthu 🗋 Enabled sta-dl-udp01 sta-dl-udp02 sta-dl-udp03 sta-dl-udp04 sta-dl-udp05 sta-dl-udp06 sta-dl-udp07 sta-dl-udp08 sta-dl- | udp0 |
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| Logged in to: brent-6port:4002 as: Admin | |

- B. Examine the results.
 - A. After each iteration completes, the results will update with various information on said iteration.

| Script Report for: scripthunt-group-01 | - • × | | | | | | |
|---|-------|--|--|--|--|--|--|
| Max-Iterations: 20 Run-Duration: 20000ms Pause-Duration: 1000ms Constraints: 50000,100000,500000,20,56000,30000,1,100000, Payload-Sizes-A: 1472 Payload-Sizes-B: 60,128,256,512,1024,1280,1460,1472,1514 Attenuator: NONE Attenuations: 100,300,400,600,800,955 Estimated total script duration: 420 seconds | | | | | | | |
| Started At: Wed Mar 23 14:18:30 2016 | | | | | | | |
| <pre># iteration: 0/20 Endpoint: scripthunt-group-01 nov: 1458767931437ms duration: 20009ms paused: 0ms # payload-size: 1472 cfg-rate: 56000 # tx-pkts: 90 tx-bytes: 132480 tx-bytes-low-level: 136260 tx-pps: 4 # tx-pbs: 52968 tx-bps-low-level: 54479 # rx-pkts: 0 rx-bytes: 0 rx-bytes-low-level: 0 # rx-torps: 0 rx-bytes: 0 rx-bytes-low-level: 0 # rx-torps: 0 rx-bytes: 0 rx-bytes-low-level: 0 # rx-torps: 0 rx-bytes: 132480 rx-pps: 4 # tx-bps: 52968 rx-bps-low-level: 0 # rx-torps: 0 rx-bytes: 132480 rx-pps: 4 # rx-torps: 52968 rx-bps-low-level: 54479 # dropped: 0 drop percent: 0.0000 avg-rx-latency(us): 2 avg-rt-latency(us): 2000 peer-machine-load: 0.40 # rx-signal: -29 tx-link-speed: 1300000000 rx-link-speed: 175600000 attenuation: 100 peer-rx-signal: -29 tx-peer-link-speed: 175600000 # * Passed constraints *</pre> | = , | | | | | | |
| <pre># Passed constraints * # * Passed constraints * # iteration: 1/20 Endpoint: scripthunt-group-01 now: 1458767952452ms duration: 20009ms paused: 1006ms # payload-size: 1472 cfg-rate: 122000 # tx-pkts: 200 tx-bytes: 10w-level: 302800 tx-pps: 10 # tx-pkts: 200 tx-bytes: 10w-level: 121066 # rx-pps: 0 rx-bytes: 0 rx-bytes-low-level: 0 # rx-pkts: 0 rx-bytes: 0 rx-bytes-low-level: 0 # rx-pks: 0 rx-bytes: 0 rx-bytes: 0 rx-bytes-low-level: 0 # rx-pks: 0 rx-bytes: 0 rx-bytes: 0 rx-bytes-low-level: 0 # rx-pks: 12700 rx-bytes: 0 rx-bytes-low-level: 0 # rx-pks: 0 rx-bytes: 0 rx-bytes-low-level: 0 # rx-pks: 12700 rx-bytes-low-level: 121066 # dropped: 0 drop percent: 0.0000 avg-rx-latency(us): 2 avg-rt-latency(us): 2000 peer-machine-load: 0.25 # rx-pse: 1300000000 avg-rx-latency(us): 2 avg-rt-latency(us): 2000 peer-rx-signal: -32 tx-peer-link-speed: 175600000 rx-peer-link-speed: 13000000000 rx-ptoped: 0 peer-drop percent: 0.0000</pre> | | | | | | | |
| Pause Close Save File Graphical Display Invert RX-Signal X Axis | | | | | | | |

B. When ScriptHunt finishes, the results will show a summary of all iterations. This data shows how high the rates reached and which failure constraints the iterations hit. This particular test reached about 429 Mbps tx-rate within the specified constraints. Notice how the configured rate (cfg-rate (bps) adjusts up and down as the drop percent (drop% peer) goes lower and higher than the 5% constraint set earlier.

| _ | Script Report for: scripthunt-group-01 | | | | | | | | | | | | | |
|--------------|--|--|--|---------------------------------------|------------------|---|------------------|---------|------------|---------|-----------------|--------|------------|---|
| Summa | ry data | for each ite | eration: | | | | | | | | | | - | • |
| ## p | ld-size | cfq-rate | tx- | bps | rx-bps | rx-bps-LL | tx-pps | rx-pps | tx-pkts | rx-pkts | cx-drops | drop% | rx-lat(ms) | |
| - '(t | bytes) | (bps) | - | ' p | eer | peer | 1.1 | peer | 1.1 | peer | peer | peer | peer | |
| 0* | 1472 | 56000 | 52 | 968 | 52968 | 54479 | 4 | . 4 | 90 | . 90 | . 0 | 0.000 | 2 | |
| 1* | 1472 | 122000 | 117 | 707 | 117707 | 121066 | 10 | 10 | 200 | 200 | 0 | 0.000 | 2 | |
| 2* | 1472 | 198000 | 194 | 207 | 194207 | 199748 | 16 | 16 | 330 | 330 | 0 | 0.000 | 2 | |
| 3* | 1472 | 406000 | 400 | 204 | 400204 | 411623 | 34 | 34 | 680 | 680 | 0 | 0.000 | 2 | |
| 4* | 1472 | 1228000 | 1223 | 970 1 | 223970 | 1258893 | 104 | 104 | 2080 | 2080 | 0 | 0.000 | 2 | |
| 5* | 1472 | 4922000 | 4914 | 269 4 | 914269 | 5054485 | 417 | 417 | 8350 | 8350 | 0 | 0.000 | 1 | |
| 6* | 1472 | 24620000 | 24605 | 425 24 | 601894 | 25303850 | 2089 | 2089 | 41810 | 41804 | 6 | 0.014 | 1 | |
| 7* | 1472 | 147730000 | 147008 | 451 146 | 991385 | 151185433 | 12484 | 12482 | 249812 | 249783 | 29 | 0.012 | 2 | |
| 8 | 1472 | 1034120000 | 1032603 | 954 293 | 173554 | 301538560 | 87687 | 24896 | 1754620 | 498166 | 1256454 | 71.608 | 73 | |
| F | Failed | drop-percent | constrain | t, reporte | d: 71.6 | 083% max: 5 | | | | | | | | |
| 9 | 1472 | 590925000 | 588184 | 423 355 | 069646 | 365200709 | 49948 | 30152 | 999454 | 603341 | 396113 | 39.633 | 51 | |
| F | Failed | drop-percent | constrain | t, reporte | d: 39.6 | 329% max: 5 | | | | | | | | |
| 10* | 1472 | 369327500 | 368777 | 122 368 | 710032 | 379230291 | 31316 | 31310 | 626633 | 626519 | 114 | 0.018 | 3 | |
| 11 | 1472 | 480126250 | 477208 | 437 381 | 443173 | 392326742 | 40524 | 32392 | 810841 | 648123 | 162718 | 20.068 | 43 | |
| 1 F | Failed | drop-percent | constrain | t, reporte | d: 20.0 | 678% max:5 | | | | | | | | |
| 12* | 1472 | 424726875 | 423121 | 467 417 | 510962 | 429423639 | 35931 | 35454 | 718940 | 709407 | 9533 | 1.326 | 8 | |
| 13 | 14/2 | 452426562 | 449089 | 913 389 | 65/894 | 400775850 | 38136 | 33089 | /63102 | 662114 | 100988 | 13.234 | 36 | |
| 1 | -ailed | drop-percent | constrain | t, reporte | d: 13.2 | 339% max: 5 | | | 700.000 | | | | | |
| 14 | 14/2 | 438576718 | 434606 | /31 396 | 46/88/ | 407780150 | 36906 | 33667 | /38455 | 673652 | 64803 | 8.775 | 2/ | |
| 1 250 | Failed | drop-percent | constrain | t, reporte | d: 8.7/ | 548% max: 5 | | | 700000 | 700151 | 10011 | | | |
| 15* | 14/2 | 431651796 | 429019 | /6/ 41/ | 360297 | 429268675 | 36432 | 35442 | /28962 | /09151 | 19811 | 2.718 | 14 | |
| this sinaccu | NG: Sc script, urate d | ript is not s so the packe ue to races b | symmetric. et drop ca between tr | Peer endp lculations ansmitting | will p and re | ll not be pau robably be sl: ceiving. | sed by ightly | | | | | | | |
| ## p | ld-size | cfg-rate | tx- | bps | rx-bps | rx-bps-LL | tx-pps | rx-pps | tx-pkts | rx-pkts | cx-drops | drop%s | rx-lat(ms) | |
| - (1 | bytes) | (bps) | - | peer | p | eer - | peer | | - p | beer p | eer peer | pee | r | |
| 0 | 0 | 0 | | Θ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 1 | 0 | 0 | | Θ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 2 | 0 | 0 | | Θ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 3 | 0 | Θ | | Θ | Θ | Θ | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 4 | Θ | 0 | | 0 | Θ | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 5 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 6 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 7 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 8 | 0 | 0 | | 0 | G | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 1 29 | 0 | 0 | | U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | U | |
| 10 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 11 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | U | |
| 12 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | U | |
| 13 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | - |
| 14 | 0 | U | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 12 | U | 0 | | 0 | U | U | 0 | U | 0 | U | U | 0.000 | U | |
| Syster | n Load | at end of tes | st: 0.70 | | | | | | | | | | = | |
| End of | f Repor | t, date: Wed | Mar 23 14 | :24:07 201 | 6 | | | | | | | | | |
| | | Daue | • | Close | | Save File |] [| Granbi | al Dienlay | Inv | ort RX-Signal | X Avic | | - |
| | | - Faus | - I | ciose | | Saverne | | diapini | arbispiay | | ere novasiginai | V 4V12 | | |

- 4. Create another Test Group with alternate ScriptHunt settings.
 - A. We will essentially copy the last Test Group, then change ScriptHunt settings. Select 'scripthunt-group-01' and click **Modify**.

| 🛃 Create// | Modify Test Group | | | | | | | |
|--|-----------------------|--------------------|--|--|--|--|--|--|
| Test Group Name: thunt-gr | oup-02 Script | 🗹 Config As Totals | | | | | | |
| Cre | oss Connects (CX) | 1 | | | | | | |
| Registered CXs | | Free CXs | | | | | | |
| sta-dl-udp01 sta-dl-udp02 sta-dl-udp03 sta-dl-udp04 sta-dl-udp05 sta-dl-udp06 sta-dl-udp07 sta-dl-udp08 sta-dl-udp09 sta-dl-udp10 | ← Add Cx Free Cx → | | | | | | | |
| Apply OK Cancel | | | | | | | | |

- A. Change the Test Group Name to 'scripthunt-group-02'.
- B. Click OK.

B. Select scripthunt-group-02 and click Modify.

| 📓 LANforge Manager Version(5.3.4) 📮 🗆 🗙 |
|--|
| Control Reporting Tear-Off Info Plugins |
| Stop All Restart Manager Refresh HELP |
| 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 Layer-4 |
| Select All Start Stop Quiesce Clear Display Create Modify Delete |
| LANforge Test Groups |
| Name Run Script Cross Connects |
| scripthunt-group-01 Enabled sta-dl-udp01 sta-dl-udp02 sta-dl-udp03 sta-dl-udp04 sta-dl-udp05 sta-dl-udp06 sta-dl-udp07 sta-dl-udp08 sta-c |
| scriptnunt-group-02 🔄 None 🛛 sta-ai-uap01 sta-ai-uap02 sta-ai-uap03 sta-ai-uap04 sta-ai-uap05 sta-ai-uap06 sta-ai-uap07 sta-ai-uap08 sta-ai- |
| |
| Logged in to: brent-6port:4002 as: Admin |

C. Click **Script**.

| \$ | Add/Modi | fy Script | | | |
|--------------------------|---|--|------------------------------|--|--|
| Group Name: scripthunt-g | roup-02 🔻 Script Type: | ScriptHunt 🗸 | | | |
| Script Name: my-script | Group Action: | All | | | |
| 🗹 Enable Script 🛛 Show R | eports 🗌 Symmetric 🔲 Lo | oop 🗌 Hide Iteration Details | 🗌 Hide Legend 🛛 Hide CSV | | |
| Loop Count Forever | Script Iterations | :: 20 (20) E | stimated Duration: 7 m (7 m) | | |
| | Script C | onfiguration | 1 | | |
| 🛛 Use TCP MSS 🔄 Show | Dups 🗌 Show OOO 🗌 Sl | how Attenuation 🛛 🗹 Hide La | tency Distributions 🛛 Hide F | | |
| Hide Constraints | | | | | |
| Run Duration: | 20s | Pause Duration: | ls (ls) 🔻 | | |
| Starting Rate: | New Modem (56 Kbps) | Max Iterations: | 20 💌 | | |
| Max Drop Percent: | 10% (10%) | Max-Tx-Underrun: | 10% (10%) | | |
| Max Jitter: | high (100 ms) | ▼ Max RT Latency: | 500ms (500 ms) 💌 | | |
| Threshold: | 3% (30,000) | • | | | |
| Payload Sizes A | Paylo | ad Sizes B | -Attenuations (ddB) | | |
| | 60 128 256 512 1024 1280 1460 1472 1514 | 100 300 400 600 800 955 | NONE | | |
| Show Previo | ous Report Sync | Apply OK | Cancel | | |

- A. Set the $\ensuremath{\mathsf{Script}}\xspace{\mathsf{Type}}$ to $\ensuremath{\mathsf{Script}}\xspace{\mathsf{Hunt}}.$
- B. Again, Run Duration should be 15-20s minimum. It is set to 20s for this test.
- C. Since the only constraint limiting the first Test Group was**Max Drop Percent**, we'll raise it to **10%** and compare the results.
- D. Remove all but 1472 in Payload Sizes A.
- E. Click **OK**.
- F. Click **OK** in the Create/Modify Test Group window.
- D. Be sure 'scripthunt-group-01' is stopped! If you have two different ScriptHunts running on the same connection(s), they will try to fight eachother.

E. Select 'scripthunt-group-02' and click Start.

| LANforge Manager Version(5.3.4) | | | | | | | |
|---|--|--|--|--|--|--|--|
| Control Reporting Tear-Off Info Plugins | | | | | | | |
| Stop All Restart Manager Refresh HELP | | | | | | | |
| 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 Layer-4 | | | | | | | |
| Rpt Timer: default (5 s) Go Select All Start Stop Quiesce Clear Display Create Modify | | | | | | | |
| LANforge Test Groups | | | | | | | |
| Name Run Script Cross Connects | | | | | | | |
| scripthunt-group-01 Enabled sta-dl-udp01 sta-dl-udp02 sta-dl-udp03 sta-dl-udp04 sta-dl-udp05 sta-dl-udp06 sta-dl-udp07 sta-dl-udp08 sta-c | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Logged in to: brent-6port:4002 as: Admin | | | | | | | |

F. Observe the results summary.

| * | 🖀 Script Report for: scripthunt-group-02 | | | | | | | | | | | |
|---|--|--|--|---|----------------|--------|--------------|---------|-------------|-----------|------------|---|
| Summary data | for each ite | eration: | | | | | | | | | | - |
| ## pld-size | cfg-rate | tx-bps | rx-bps | rx-bps-LL | tx-pps | rx-pps | tx-pkts | rx-pkts | cx-drops | drop% | rx-lat(ms) | |
| - (bytes) | (bps) | - | peer | peer | | peer | - | peer | peer | peer | peer | |
| 0* 1472 | 56000 | 52968 | 52968 | 54479 | 4 | 4 | 90 | 90 | 0 | 0.000 | 2 | |
| 1* 14/2 | 122000 | 11//0/ | 11//0/ | 121066 | 10 | 10 | 200 | 200 | 0 | 0.000 | 2 | |
| 2* 14/2 | 198000 | 194217 | 194217 | 199758 | 16 | 16 | 330 | 330 | 0 | 0.000 | 3 | |
| 3* 14/2 | 406000 | 400204 | 400204 | 411623 | 34 | 34 | 080 | 080 | 0 | 0.000 | 2 | |
| 4* 14/2 | 1228000 | 1224092 | 1224092 | 1259018 | 104 | 104 | 2080 | 2080 | 0 | 0.000 | 1 | |
| S* 14/2 €* 1472 | 4922000 | 4914209 | 4914269 | 2024482 | 417 | 417 | 8300 | 8300 | G | 0.000 | 1 | |
| 7* 1472 | 147720000 | 146262556 | 146270740 | 150444225 | 12420 | 12/21 | 241010 | 241000 | 156 | 0.010 | 2 | |
| 8 1472 | 103/120000 | 1032016412 | 281383368 | 280/11060 | 87637 | 23805 | 1753534 | 4781.08 | 1275/26 | 72 735 | 80 | |
| Failed | dron-nercent | constraint rend | rted 72 73 | 46% max 10 | 0/03/ | 20000 | 1755554 | 470100 | 12/0420 | 72.755 | 00 | |
| 9 1472 | 590925000 | 586655004 | 352662688 | 362725075 | 49818 | 29948 | 996905 | 599281 | 397624 | 39,886 | 53 | |
| Failed | drop-percent | constraint, repo | rted: 39.88 | 58% max: 10 | | 200.0 | | | | | | |
| 10* 1472 | 369327500 | 365100140 | 363247431 | 373611828 | 31004 | 30846 | 620354 | 617206 | 3148 | 0.507 | 4 | |
| 11 1472 | 480126250 | 476564303 | 382428690 | 393340378 | 40469 | 32475 | 809787 | 649830 | 159957 | 19.753 | 43 | |
| Failed | drop-percent | constraint, repo | rted: 19.75 | 3% max:10 | | | | | | | | |
| 12* 1472 | 424726875 | 422719092 | 410964864 | 422690764 | 35897 | 34899 | 718364 | 698389 | 19975 | 2.781 | 14 | |
| 13 1472 | 452426562 | 448369037 | 398739633 | 410116715 | 38075 | 33860 | 761839 | 677512 | 84327 | 11.069 | 28 | |
| Failed | drop-percent | constraint, repo | rted: 11.06 | 89% max:10 | | | | | | | | |
| 14* 1472 | 438576718 | 434936899 | 398506573 | 409877005 | 36934 | 33841 | 739016 | 677116 | 61900 | 8.376 | 26 | |
| 15* 1472 | 445501640 | 444155458 | 402837358 | 414331359 | 37717 | 34208 | 754755 | 684543 | 70212 | 9.303 | 23 | |
| Peer Endpoir WARNING: So this script, inaccurate o | t Summary dat ript is not s so the packe lue to races b | ta for each itera symmetric. Peer e et drop calculati between transmitt | tion: ndpoint wil ons will pro ing and rece | l not be paus bbably be sli eiving. | ed by ghtly | | | | | | | |
| ## pld-size | cfg-rate | tx-bps | rx-bps | rx-bps-LL | tx-pps | rx-pps | tx-pkts | rx-pkts | cx-drops | drop% | rx-lat(ms) | |
| - (bytes) | (bps) | - peer | pee | er - | peer | | - pee | r peer | . peer | pee | r | |
| 0 0 | 0 | 0 | 0 | 0 | Θ | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 1 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 2 0 | 0 | 0 | 0 | 0 | 0 | U O | 0 | 0 | 0 | 0.000 | 0 | |
| 3 0 | 0 | U | U | U | 0 | U | 0 | U | 0 | 0.000 | U | |
| 4 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 6 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 7 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 8 0 | 0 | õ | õ | õ | õ | õ | 0 | õ | 0 | 0.000 | õ | |
| 9 0 | õ | õ | õ | õ | õ | õ | õ | õ | õ | 0.000 | õ | |
| 10 0 | õ | õ | õ | õ | 0 | õ | õ | ō | Ō | 0.000 | õ | |
| 11 0 | 0 | õ | õ | õ | Ö | õ | õ | õ | õ | 0.000 | õ | |
| 12 0 | 0 | 0 | 0 | 0 | Ō | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 13 0 | Θ | 0 | 0 | 0 | Θ | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 14 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| 15 0 | Θ | 0 | 0 | 0 | Θ | 0 | 0 | 0 | 0 | 0.000 | 0 | |
| System Load | at end of tes | st: 0.81 | | | | | | | | | | |
| End of Repor | t, date: Wed | Mar 23 16:15:02 | 2016 | | | | | | | | | - |
| | | | | C | | Const | | | t py cl. | LAC ALL | | |
| | Pau | Ise Clo | se | Save File | | Graph | ical Display | _ Inve | rt RX-Signa | ai X Axis | | |

A. Compare the two results final tx-bps. The first test group got 429 Mbps at 5% maximum drops. Because the second Test Group's ScriptHunt was set at 10% maximum drops, it was able to achieve a higher tx-bps of 444 Mbps.

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