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Candela
T E C H N O L O G I E S   Network Testing and Emulation Solutions
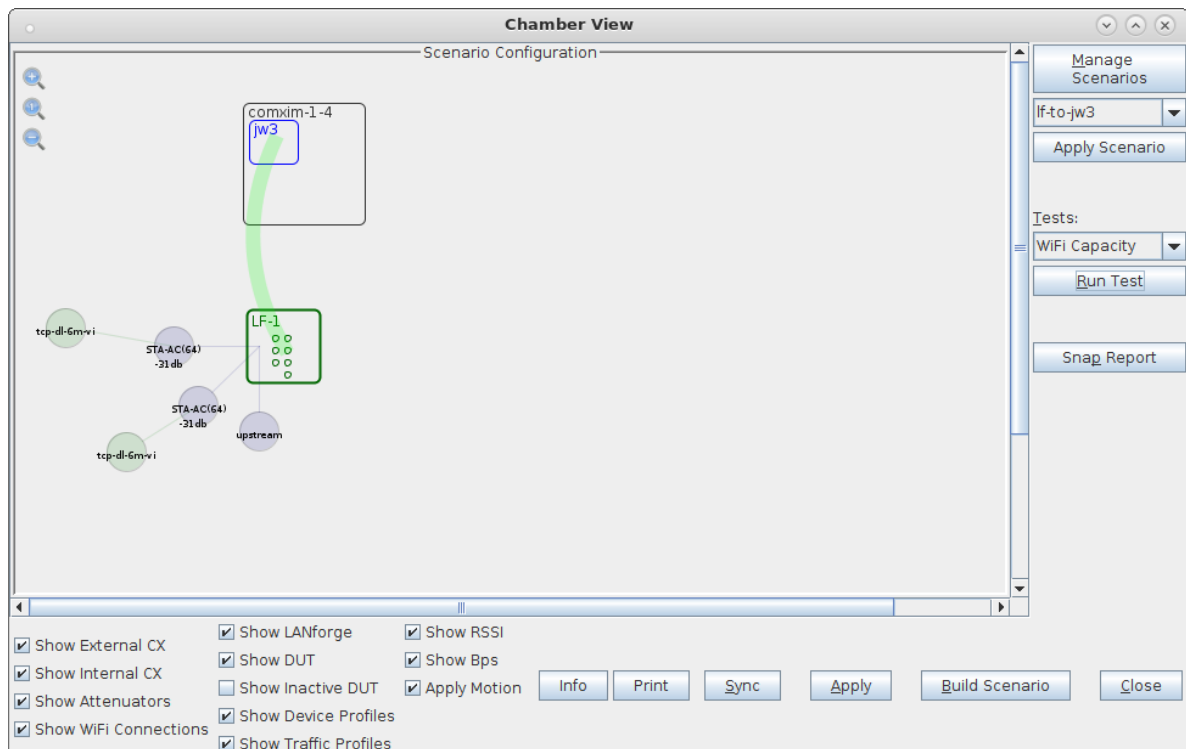
Automate WiFi Capacity and other GUI tests.

Goal: Use a command-line script to have the LANforge-GUI run the WiFi Capacity test and generate a pdf automatically.

In this test scenario, a script is used to bring up the WiFi Capacity test with a pre-configured configuration. The capacity test is then started and a report is generated. All of this is automated, and other tests such as Dataplane are also supported. This feature requires LANforge version 5.4.1 or higher.
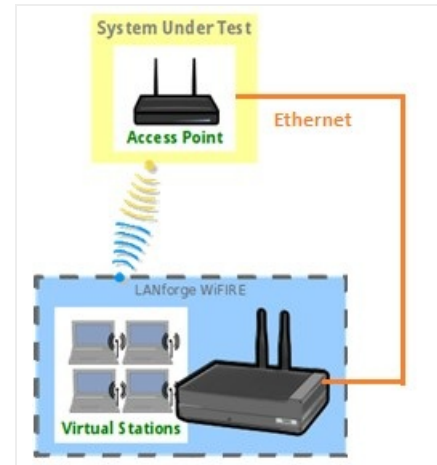
1. Configure WiFi Capacity Test for automated run.

   A. For this to work, the LANforge GUI must be started with the **-cli-socket 3990** argument. This causes it to open a socket to listen for text commands.

   B. Open Chamber View by clicking on the 'Chamber View' button in the LANforge-GUI. Create an appropriate scenario and DUT if you have not already done so. Other cookbook examples have more details of how to do this, please see those if you are unfamiliar with Chamber View.

C. Select WiFi Capacity test, and click **Run Test** to configure it as desired.

WiFi Capacity Test

| Settings | Select Ports | Test Groups | PDU Mix Settings | Advanced Settings | Select Output | Notes |

Station Increment: 1,10,120 ▼ [?] Loop Iterations: Single (1) ▼

Duration: 20 sec (20 s) ▼ ☐ Use Test Groups ☐ Subset of Test Group

Protocol: UDP-IPv4 ▼ Layer 4-7 Endpoint: NONE ▼

Payload Size: AUTO ▼ MSS: AUTO

Total Download Rate: ▼ 1G (1 Gbps) ▼

Total Upload Rate: ▼ Zero (0 bps) ▼

Percentage TCP Rate: 10% (10%) ▼

Station-Down Quiesce period: 0 (0 sec) ▼

Save | DEFAULT

Load | DEFAULT ▼

Delete | DEFAULT ▼

Start ☐ Pause Cancel

D. Enter a name in the 'Save' field, click save, and make sure it shows up as a loadable configuration. In this case, we are saving the configuration as 'udp-dl-120'

WiFi Capacity Test

| Settings | Select Ports | Test Groups | PDU Mix Settings | Advanced Settings | Select Output | Notes |

Station Increment: 1,10,120 ▼ [?] Loop Iterations: Single (1) ▼

Duration: 20 sec (20 s) ▼ ☐ Use Test Groups ☐ Subset of Test Group

Protocol: UDP-IPv4 ▼ Layer 4-7 Endpoint: NONE ▼

Payload Size: AUTO ▼ MSS: AUTO

Total Download Rate: ▼ 1G (1 Gbps) ▼

Total Upload Rate: ▼ Zero (0 bps) ▼

Percentage TCP Rate: 10% (10%) ▼

Station-Down Quiesce period: 0 (0 sec) ▼

Save | udp-dl-120

Load | DEFAULT ▼

Delete | DEFAULT
layer-4
testme
udp-dl-128
udp-dl-120

☐ Pause Cancel

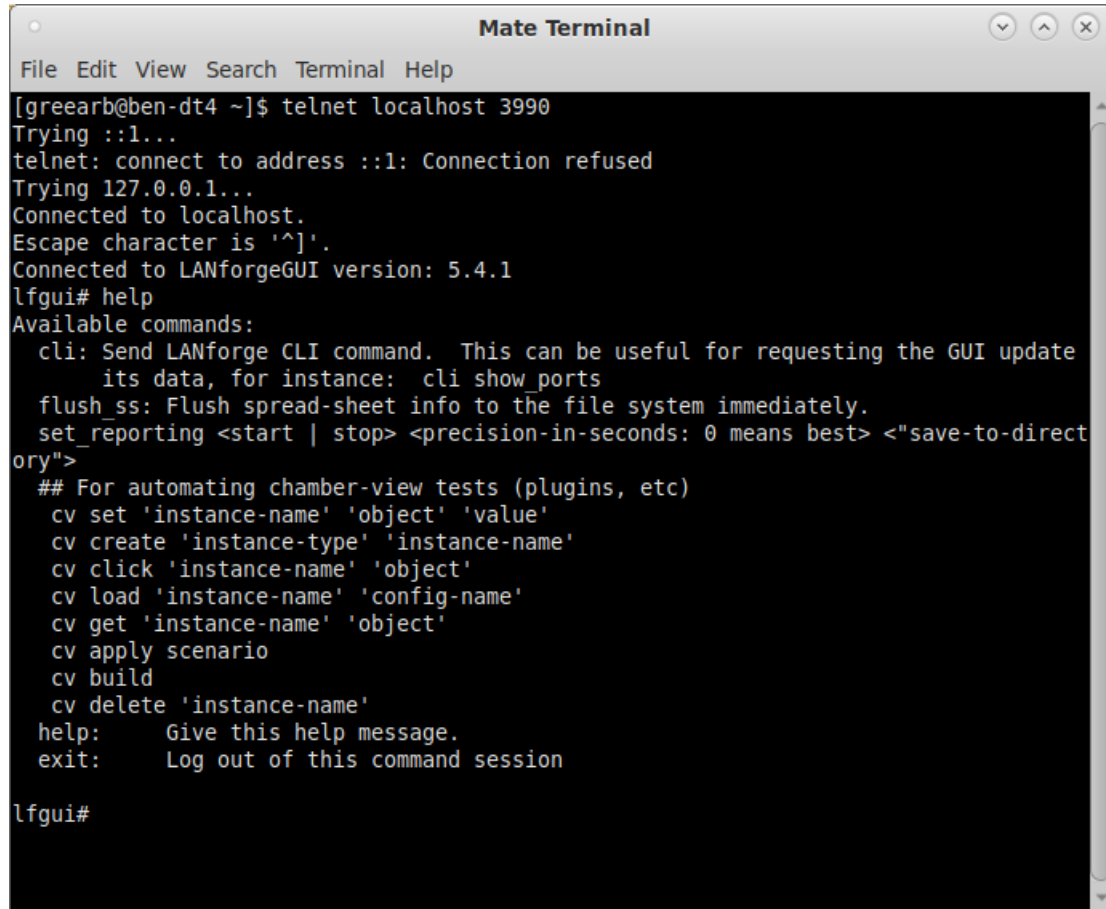2. Use the lf_gui_cmd.pl script to launch the WiFi Capacity Test.

A. Open an ssh session or terminal window and log into the LANforge system, or some other system with the LANforge scripts/ repository. On a LANforge system, this will usually be /home/lanforge/scripts In this case, the directory name is called lf_scripts

B. Run the lf_gui_cli_cmd.pl script with appropriate arguments. Use --help for details. Once you run this, the WiFi Capacity test should be automatically opened and the test will be started. The script will end when the capacity test has completed. You may copy the results to some easily found location, such as a web server directory.

C. For details on what GUI-CLI commands are supported, please see the screen-shot below and look at the contents of the lf_gui_cmd.pl script.

```
                              Mate Terminal                        ⌄  ⌃  ⊗

 File  Edit  View  Search  Terminal  Help

[greearb@ben-dt4 ~]$ telnet localhost 3990
Trying ::1...
telnet: connect to address ::1: Connection refused
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
Connected to LANforgeGUI version: 5.4.1
lfgui# help
Available commands:
  cli: Send LANforge CLI command.  This can be useful for requesting the GUI update
       its data, for instance:  cli show_ports
  flush_ss: Flush spread-sheet info to the file system immediately.
  set_reporting <start | stop> <precision-in-seconds: 0 means best> <"save-to-direct
ory">
  ## For automating chamber-view tests (plugins, etc)
   cv set 'instance-name' 'object' 'value'
   cv create 'instance-type' 'instance-name'
   cv click 'instance-name' 'object'
   cv load 'instance-name' 'config-name'
   cv get 'instance-name' 'object'
   cv apply scenario
   cv build
   cv delete 'instance-name'
  help:     Give this help message.
  exit:     Log out of this command session

lfgui#
```