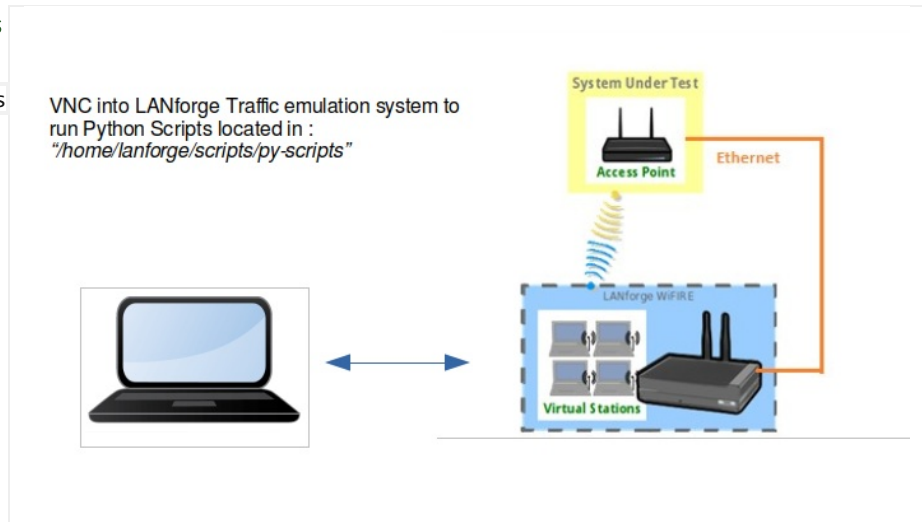


Start Here: Introduction to Executing Python Script on LANforge

Goal: Run First Python Script on LANforge

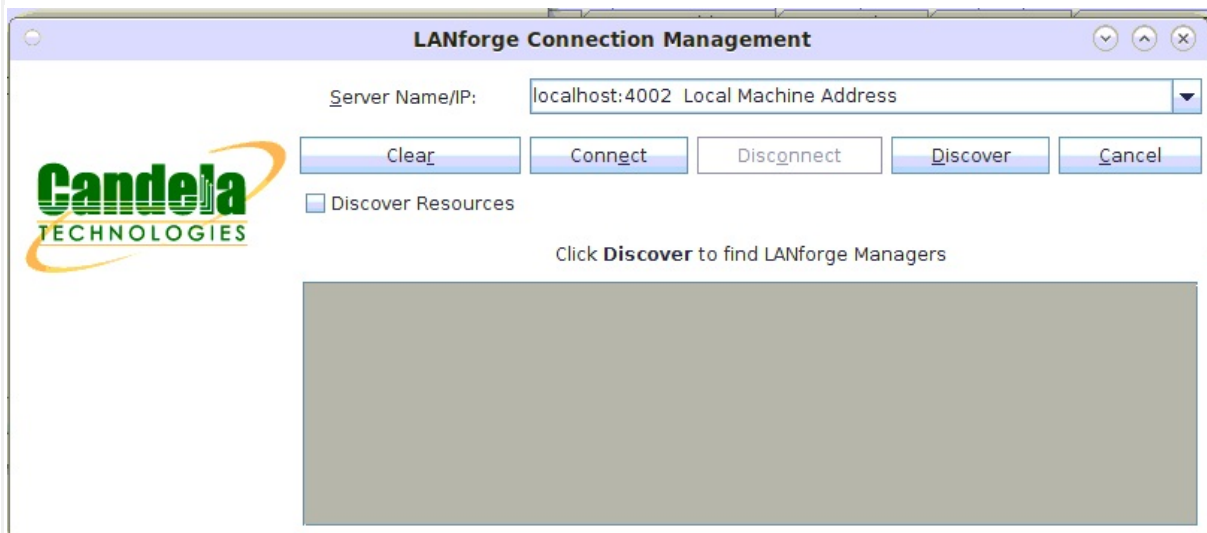
Each LANforge system has Python scripts preinstalled at `/home/lanforge/scripts` to configure the LANforge and run Traffic Emulation. Goal is to execute `sta_connect2.py`, one of the pre-installed python scripts located at



`/home/lanforge/scripts/py-script/sta_connect2.py`

The Script `sta_connect2.py` will create a station, create TCP and UDP traffic, run traffic for a short amount of time, and verify whether traffic was sent and received. It also verifies the station connected to the requested BSSID if bssid is specified as an argument. The script will clean up the station and connections at the end of the test. An html and pdf report of the results will be generated and placed in `/home/lanforge/html-reports` directory. The script will clean up the station and connections at the end of the test.

1. **Start the LANforgeGUI if GUI not running:**
To start the LANforgeGUI navigate to : `/home/lanforge/LANforgeGUI_5.4.5`
Execute : `./lfcclient.bash`
Select 'Connect' to connect to: `localhost:4002 Local Machine Address`



2. Where Do I Find Scripts?

Preinstalled Python Scripts Location on LANforge: `/home/lanforge/scripts/py-scripts`

Example script `sta_connect2.py` location: `/home/lanforge/scripts/py-scripts/sta_connect2.py`

3. Initial Information to gather as input to `sta_connect2.py` script:

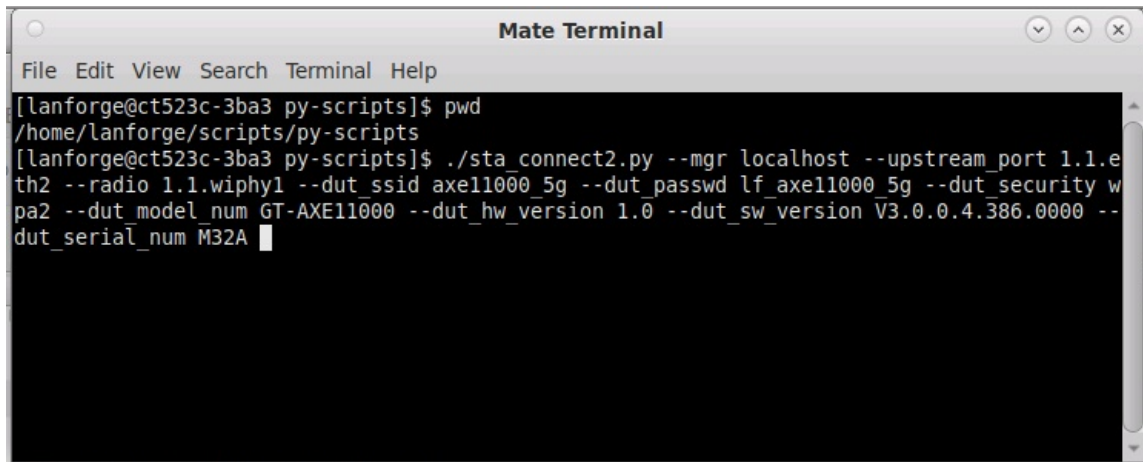
Note: An example of a Device Under Test is an Access Point

The DUT information is used in report generation. The DUT information may be optional.

- A. The LANforge manager IP address: `--mgr [localhost]`
- B. The LANforge upstream port: `--upstream_port [eth port]`
- C. The LANforge radio: `--radio [radio]`
- D. The Device Under Test ssid: `--dut_ssid [ssid]`
- E. The Device Under Test passwd: `--dut_passwd [passwd]`
- F. The Device Under Test security: `--dut_security [security]`
- G. The Device Under Test Model Number: `--dut_model_num [model]`
- H. The Device Under Test Hardware Version: `--dut_hw_version [hw version]`
- I. The Device Under Test Software Version: `--dut_sw_version [sw version]`
- J. The Device Under Test Serial Number: `--dut_serial_num [serial number]`

4. Example Command for `sta_connect2.py`:

```
./sta_connect2.py --mgr localhost --upstream_port 1.1.eth2  
--radio 1.1.wiphy1 --dut_ssid axe11000_5g --dut_passwd lf_axe11000_5g --dut_security wpa2  
--dut_model_num GT-AXE11000 --dut_hw_version 1.0 --dut_sw_version V3.0.0.4.386.0000  
--dut_serial_num M32A
```



The screenshot shows a terminal window titled "Mate Terminal" with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal prompt is `[lanforge@ct523c-3ba3 py-scripts]$`. The user enters `pwd` and the output is `/home/lanforge/scripts/py-scripts`. Then, the user enters the full command from the previous block, and the terminal shows the command being executed. The output of the command is not visible in this screenshot.

5. Results for `sta_connect2.py` located in `/home/lanforge/html-reports`:

```
1655813768.675400 INFO PASSED: 1.1.sta0000 connected to AP: FC:34:97:2B:38:94 With IP: 192.168.50.152  
PASSED: udpsta0000-0-A 1936800 bps  
PASSED: udpsta0000-0-A 1936500 bps  
PASSED: udpsta0000-0-B 1936500 bps  
PASSED: udpsta0000-0-B 1935600 bps  
PASSED: tcpsta0000-0-A 1892400 bps  
PASSED: tcpsta0000-0-A 1893000 bps  
PASSED: tcpsta0000-0-B 1893000 bps  
PASSED: tcpsta0000-0-B 1892400 bps sta_connect2.py 1109  
1655813769.016487 INFO Test Results HTML located: /home/lanforge/html-reports/2022-06-21-05-14-39_sta_connect2/2022-06-21-05-14-39-sta_c  
onnect2.html sta_connect2.py 1117  
1655813769.016640 INFO Test Results PDF located: /home/lanforge/html-reports/2022-06-21-05-14-39_sta_connect2/2022-06-21-05-14-39-sta_co  
nnect2.pdf sta_connect2.py 1120  
1655813769.016695 INFO PASS: All tests pass sta_connect2.py 1128  
[lanforge@ct523c-3ba3 py-scripts]$
```

6. Results for `sta_connect2.py` located in `/home/lanforge/html-reports`:

Script produces both html and pdf results

Sample `sta_connect2.py` Script HTML Output: [example of html output](#)

Sample `sta_connect2.py` Script pdf Output: [example of pdf output](#)

Other script options may be shown by typing `./sta_connect2.py --help`

