IPERF-3

PREPARED FOR Netgear

PREPARED BY

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July 22, 2021

Netgear Scripting Project

EXECUTIVE SUMMARY

Iperf-3 is a tool for network performance measurement and tuning. The aim of this test to verify that aggregate throughput and per client throughput meets the expectation.

Netgear Scripting Project:

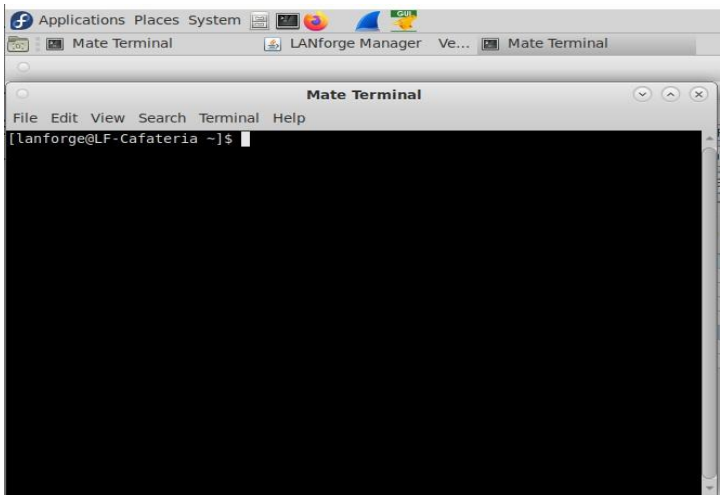
[22-07-2021]

1. Test Procedure

1. Script will are create mac-vlan and clients in port-mgr tab
2. Create generic-eth and generic-sta in generic tab
3. Run the uplink, downlink in generic tab
4. For bi-direction, station will flow the traffic in layer 3 tab
5. All the collected values will be ploted in the graph.

3. How to use Script?

1) Open the Mate terminal in your lanforge.



2) Change the directory to “cd home/lanforge/CandelaAutomationScripts/Iperf3”

3) execute the python test eg -

1. **Run uplink test for 2.4GHz** = python iperf3_test.py --mgr 192.168.200.12 --mgr_port 8080 --ssid portal --passwd [Blank] --sec open --radio0 wiphy0 --radio1 wiphy1 --macvlan eth1 --mode0 6 --mode1 10 --num_ports 2 --tx_rate 5000 --time 60 --side_a_min_speed 5000000 --side_b_min_speed 500000 --test_2G 1 --test_2G_up 1 --resource 2
2. **Run all test for all scenario** = python iperf3_test.py --mgr 192.168.200.12 --mgr_port 8080 --ssid portal --passwd [Blank] --sec open --radio0 wiphy0 --radio1

wiphy1 --macvlan eth1 --mode0 6 --mode1 10 --num_ports 2 --tx_rate 5000 --time 60 --side_a_min_speed 5000000 --side_b_min_speed 500000 --all_test 1

3. **Run downlink and bi-dir test for 5GHz** = python iperf3_test.py --mgr 192.168.200.12 --mgr_port 8080 --ssid portal --passwd [Blank] --sec open --radio0 wiphy0 --radio1 wiphy1 --macvlan eth1 --mode0 6 --mode1 10 --num_ports 2 --tx_rate 5000 --time 60 --side_a_min_speed 5000000 --side_b_min_speed 500000 --test_5G 1 --test_5G_dw 1 --test_5G_bi 1
4. **Run bi for 2+5 GHz scenario** = python iperf3_test.py --mgr 192.168.200.12 --mgr_port 8080 --ssid portal --passwd [Blank] --sec open --radio0 wiphy0 --radio1 wiphy1 --macvlan eth1 --mode0 6 --mode1 10 --num_ports 2 --tx_rate 5000 --time 60 --side_a_min_speed 5000000 --side_b_min_speed 500000 --test_both 1 --test_both_bi 1

optional arguments:

-h, --help show this help message and exit

--ssid SSID SSID for stations to associate to

--passwd PASSWD Number of stations to create

--security SECURITY security type to use for ssid { wep | wpa | wpa2 | wpa3 | open }

--radio0 RADIO0 radio EID for 2.4 GHz, e.g: 1.wiphy2

--radio1 RADIO1 radio EID for 5 GHz, e.g: 1.wiphy2

--mode0 MODE0 select bssid for 2.4 GHz, e.g: 6

--mode1 MODE1 select bssid for 5 GHz, e.g: 10

--macvlan_parent MACVLAN_PARENT specifies parent port for macvlan creation

--num_ports NUM_PORTS number of ports to create

--tx_rate TX_RATE Enter the tx rate in Kbps eg. 10Mbps=10000k

--time TIME Enter the run time in sec

--side_a_min_speed SIDE_A_MIN_SPEED --speed you want to monitor traffic with (max is 10G)

--side_b_min_speed SIDE_B_MIN_SPEED --speed you want to monitor traffic with (max is 10G)

--all_test ALL_TEST --run all scenario

--all_test_up ALL_TEST_UP --run uplink test for all scenario

--all_test_dw ALL_TEST_DW --run downlink test for all scenario

--all_test_bi ALL_TEST_BI --run bi-directional test for all scenario

--test_2G TEST_2G --run 2.4 GHz scenario

--test_2G_up TEST_2G_UP --run uplink for 2.4 GHz scenario

--test_2G_dw TEST_2G_DW --run downlink for 2.4 GHz scenario

--test_2G_bi TEST_2G_BI --run bi-directional for 2.4 GHz scenario

--test_5G TEST_5G --run 5 GHz scenario

--test_5G_up TEST_5G_UP --run uplink for 5 GHz scenario

--test_5G_dw TEST_5G_DW --run downlink for 5 GHz scenario

--test_5G_bi TEST_5G_BI --run bi-directional for 5 GHz scenario

--test_both TEST_BOTH --run 2+5 GHz scenario

--test_both_up TEST_BOTH_UP --run uplink for 2+5 GHz scenario

--test_both_dw TEST_BOTH_DW --run downlink for 2+5 GHz scenario

--test_both_bi TEST_BOTH_BI --run bi-directional for 2+5 GHz scenario

--ap_ip AP_IP --Enter the AP Ip Address

--user USER --Enter the username

--resource RESOURCE --Enter the resource

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After execution of script results can be seen on the html-reports directory

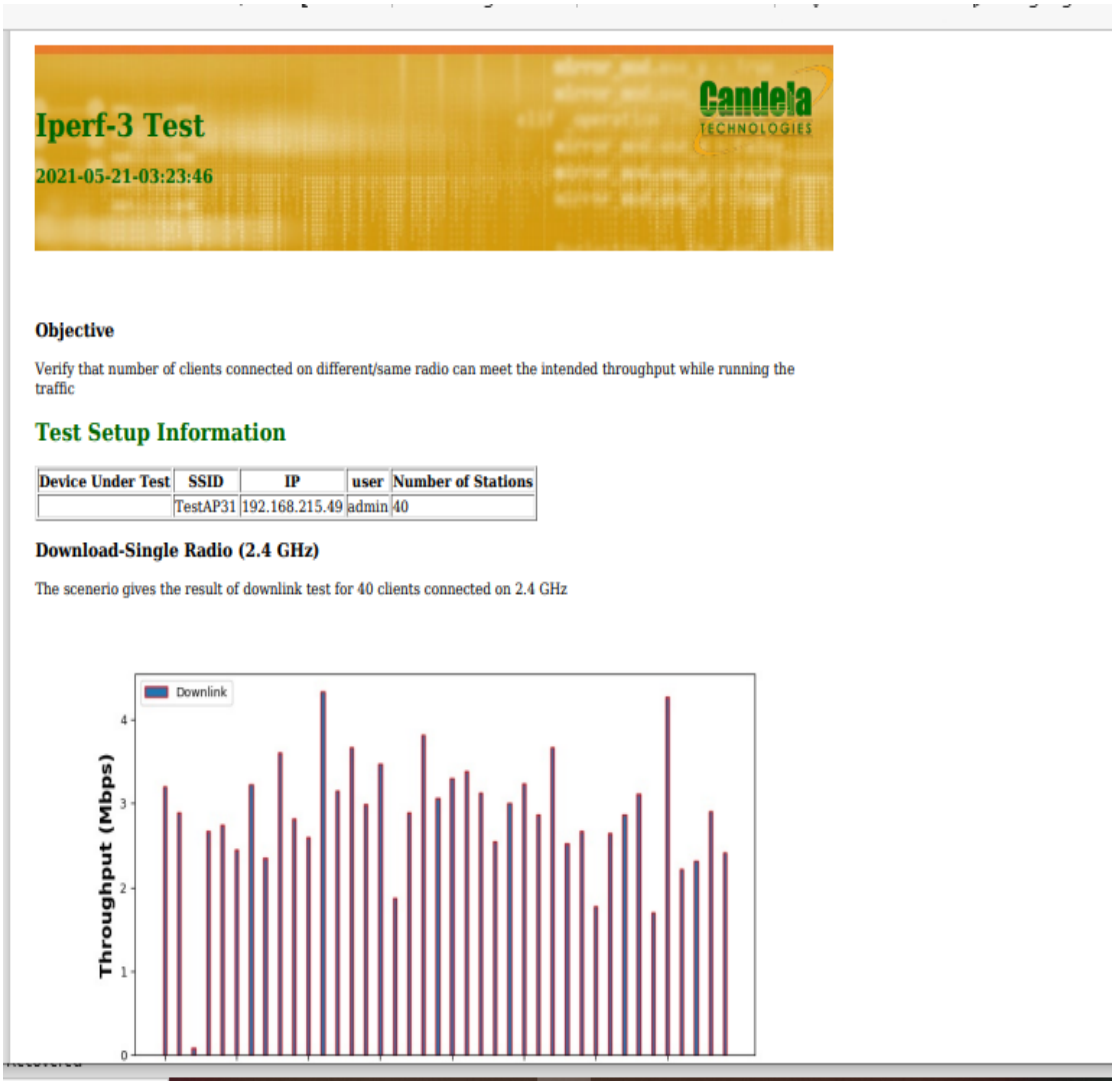
`~ /home/lanforge/html-reports

Log files can be seen in py-jsonfolder

Pdf report (output.pdf) and html reports (output.html) can be found inside py- json folder

4. Results

Screenshot of pdf report generation is shown below



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For any support related help contact - support@candelatech.com