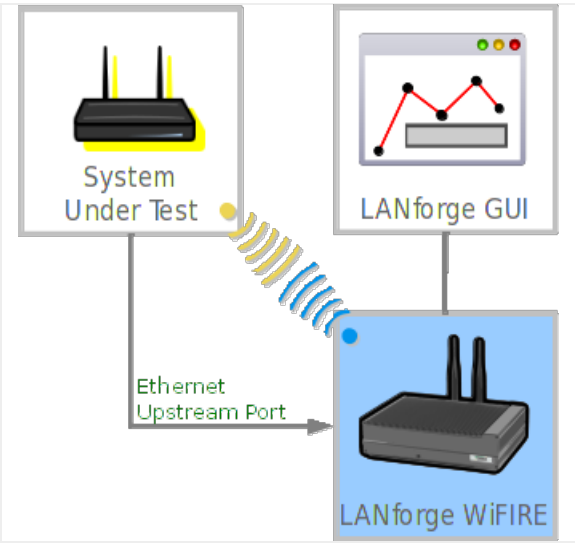
sales@candelatech.com
support@candelatech.com
+1 (360) 380-1618 [PST, GMT -8]

Using iperf3 to Generate Traffic

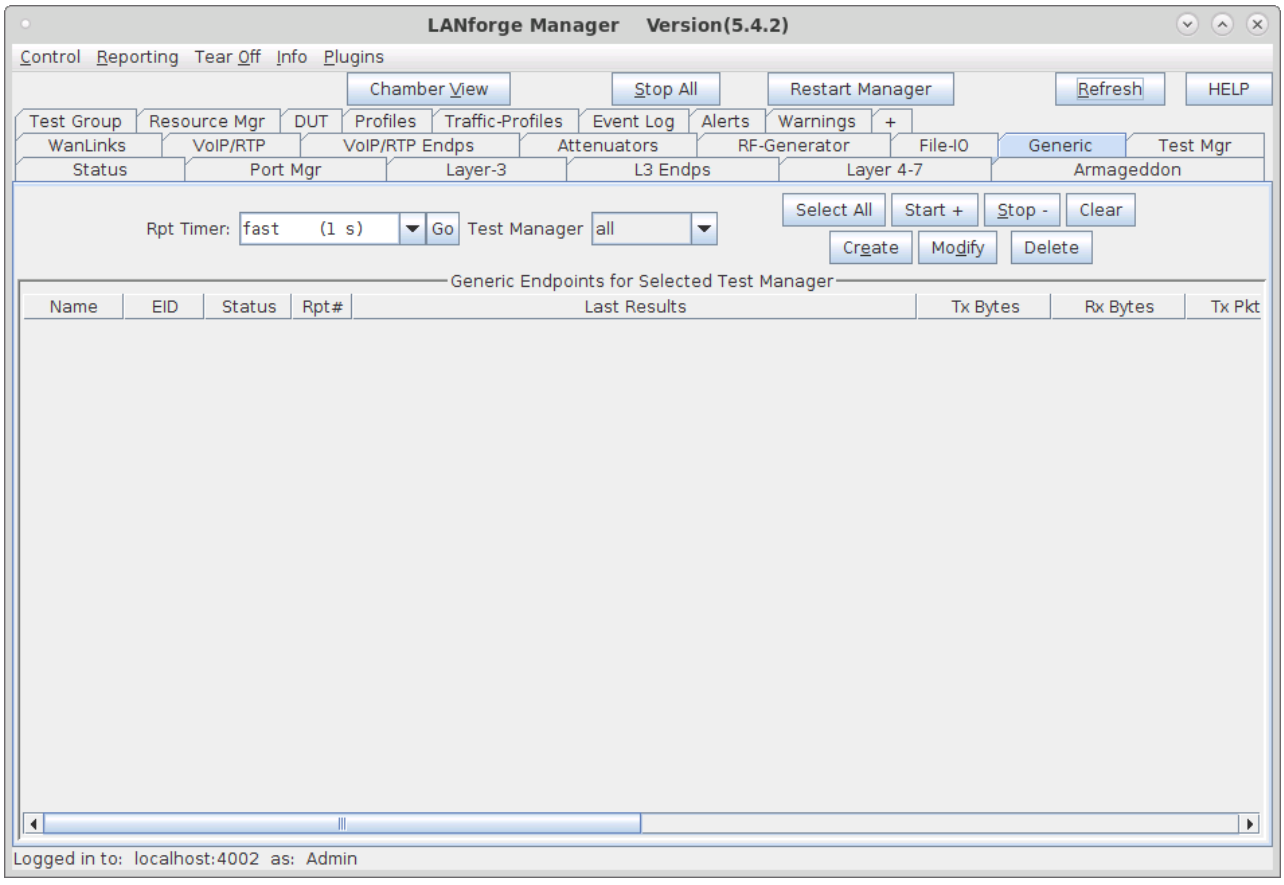
Goal: Set up virtual stations using a LANforge system, connect them to an AP under test, set up iperf3, and run tests.

In this test scenario a LANforge system is used to create both the wireless stations and iperf3 server. The test is then configured to use iperf3 to generate traffic in both the download and upload directions.

Although LANforge Generic endpoints prompt the use of iperf3, iperf2 could be used instead with a manual configuration. This example however, focuses on how to use iperf3.

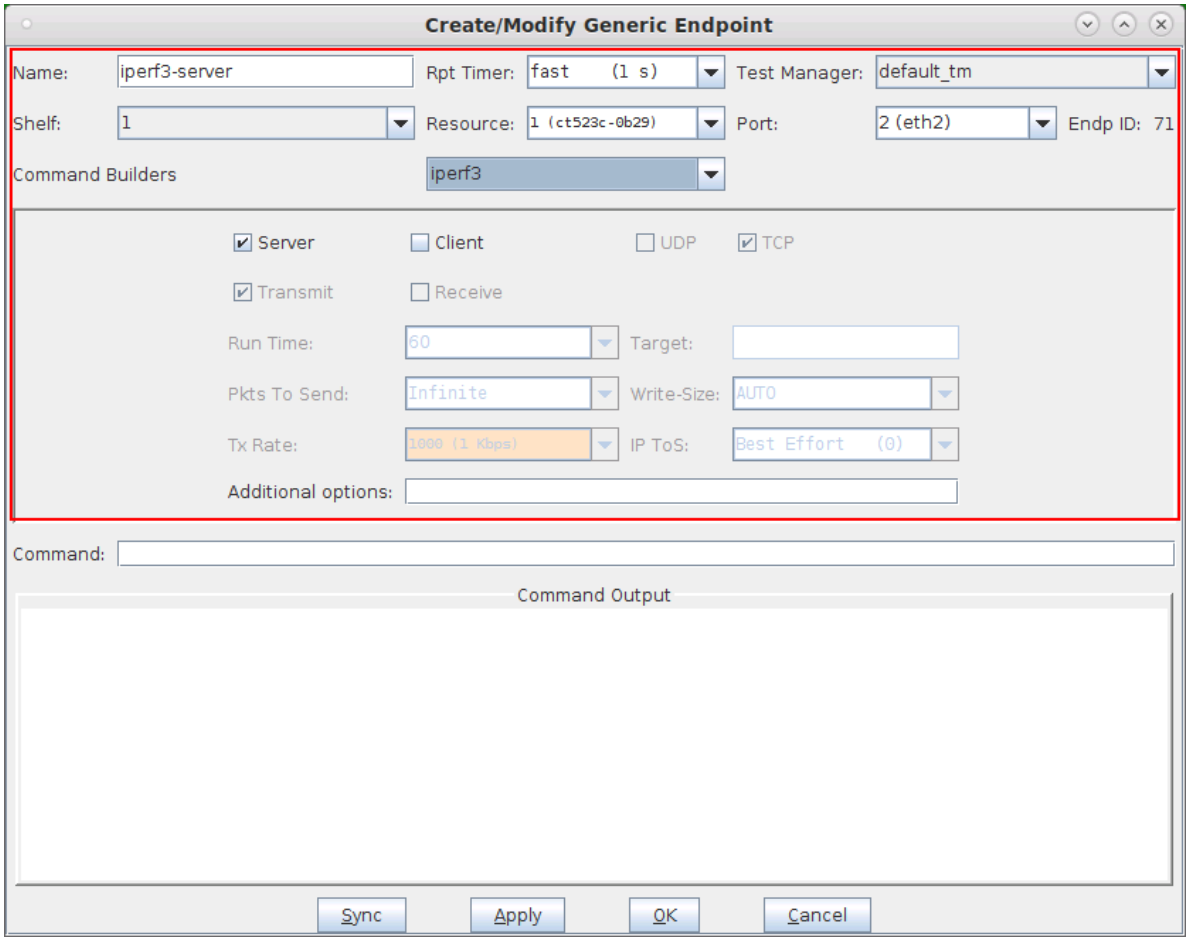


1. **Select the Generic tab from the main GUI window.**

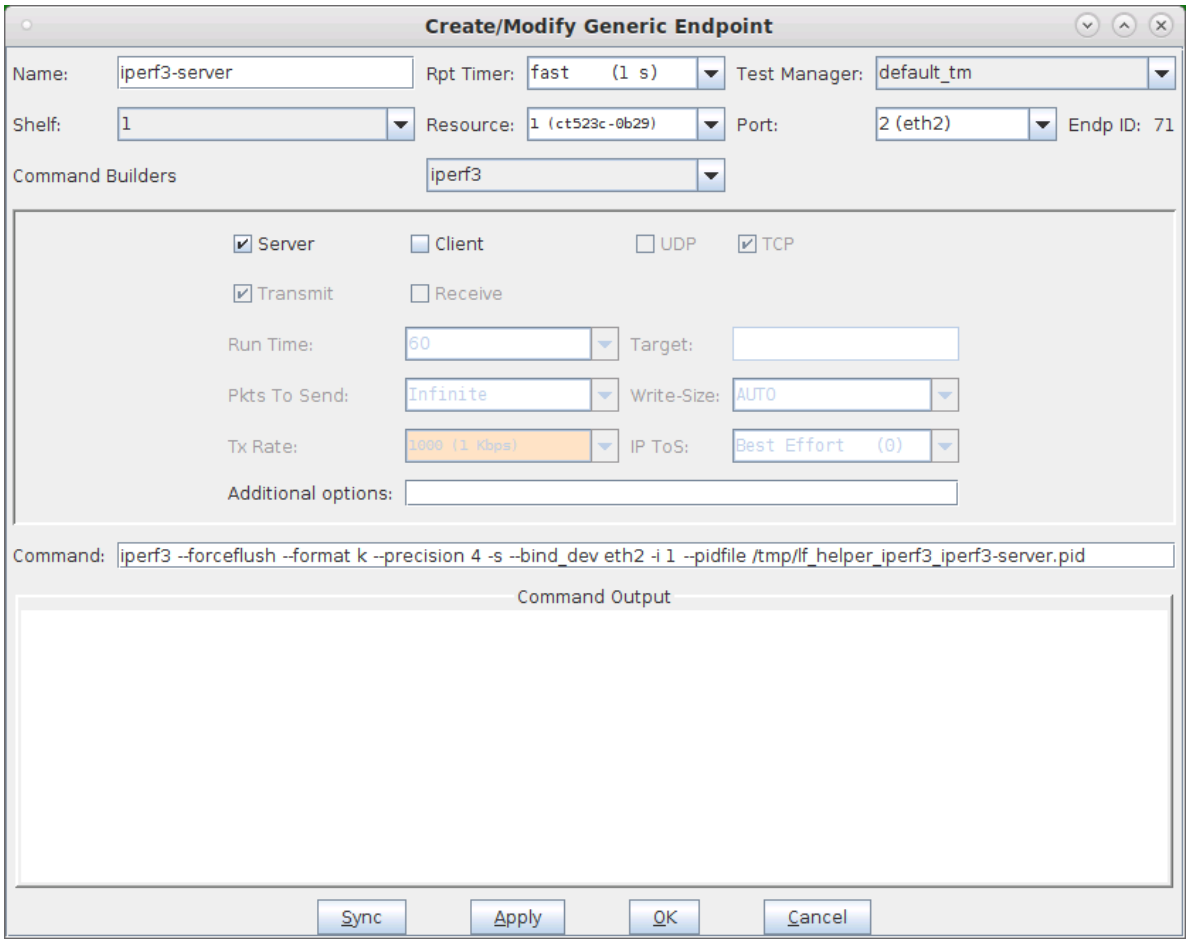


2. **Select the Create button to create the iperf3 server.**

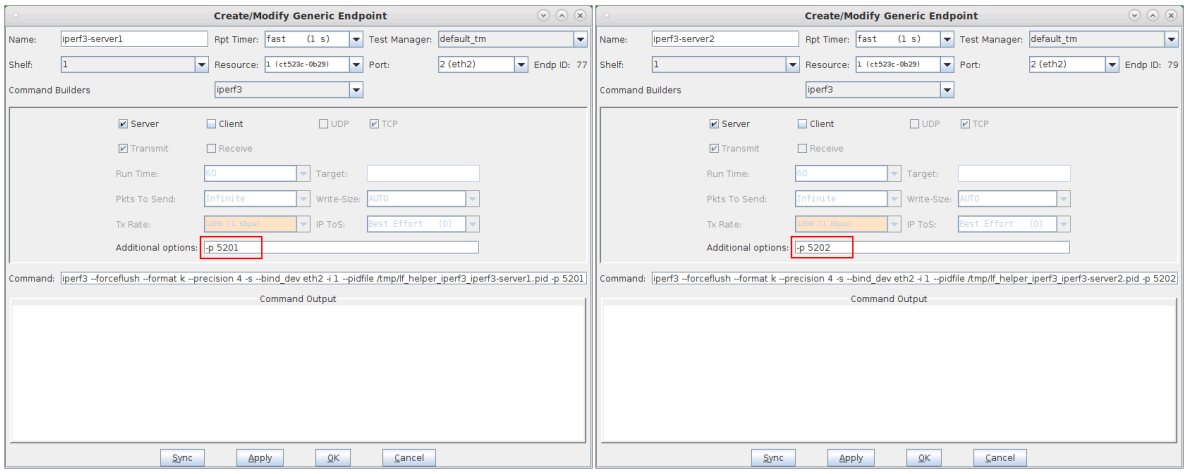
A. Use the top section to name the connection and choose the port/interface, then use the Command Builder for iperf3 to choose the Server option. The command line will be filled in when the Apply button is selected.



B. For a single iperf3 test at a time setup one server.

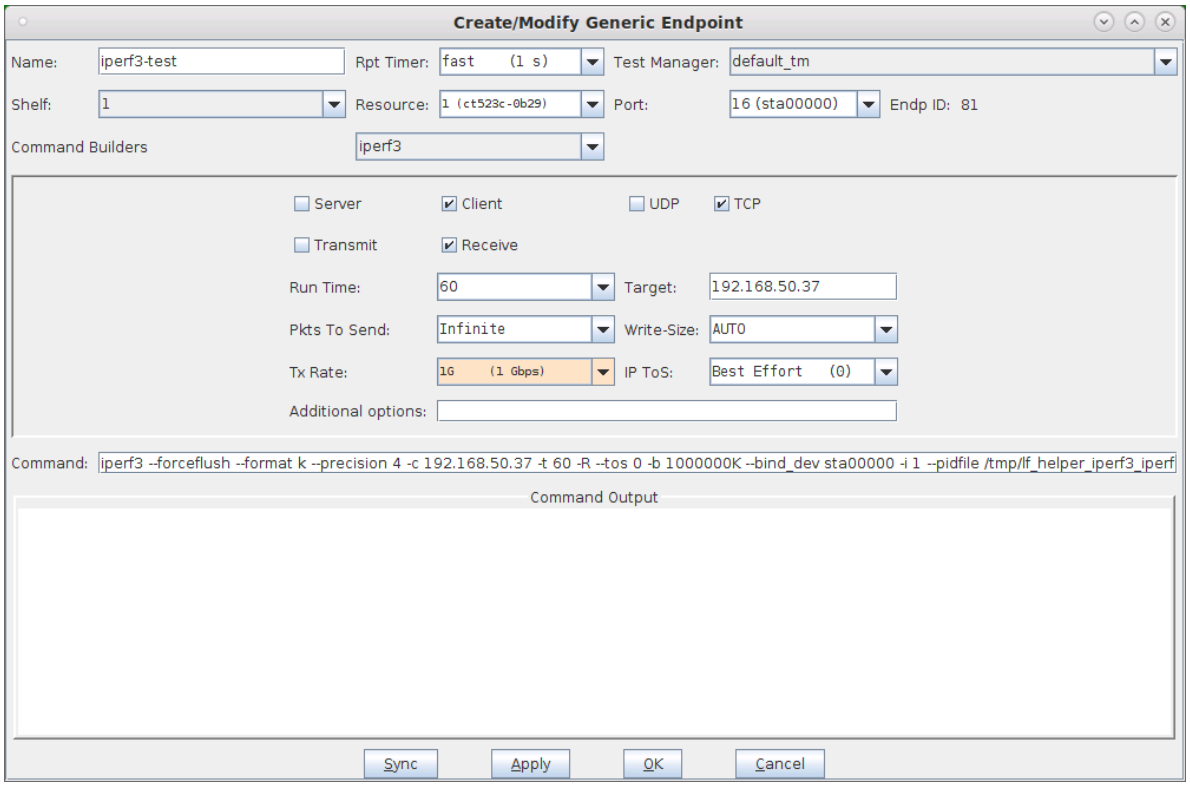


C. For multiple iperf3 tests at a time, setup multiple servers, each with a unique IP port number by using the -p option.

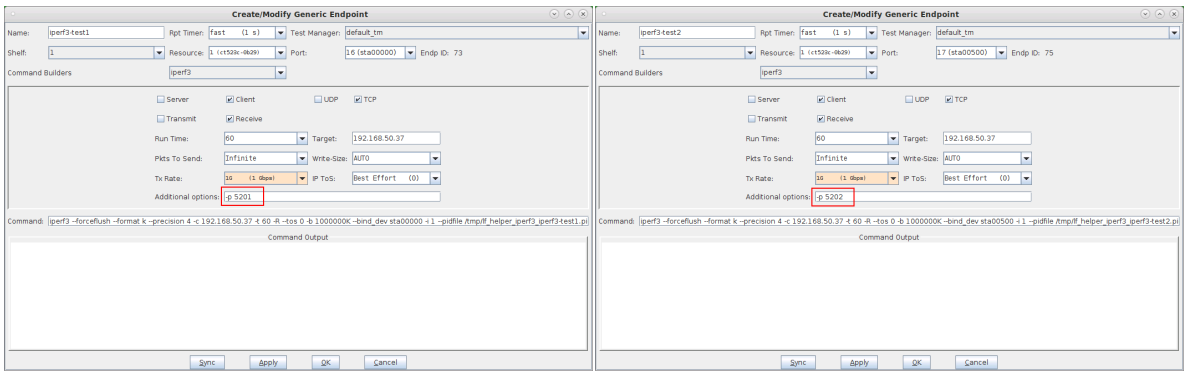


3. **Create the iperf3 client.**

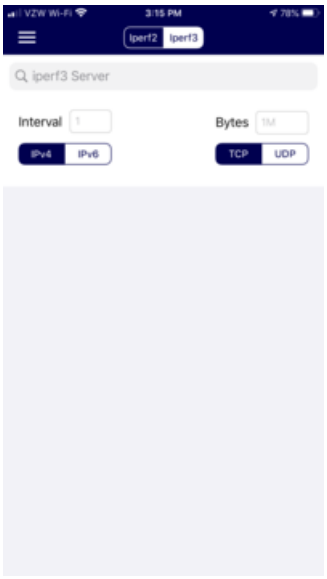
A. For a single iperf3 test at a time setup one client.



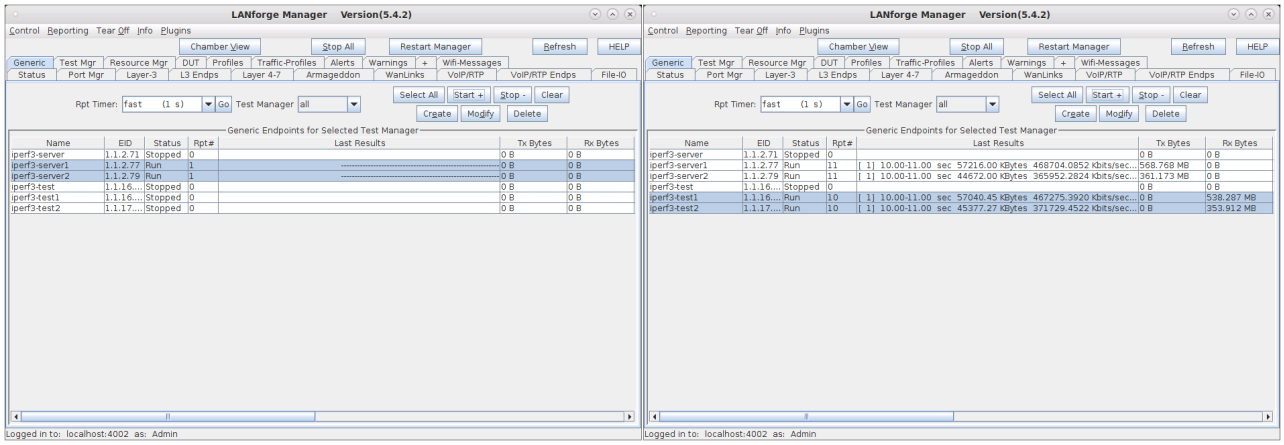
B. For multiple iperf3 tests at a time, setup multiple clients using the corresponding IP ports as the servers.



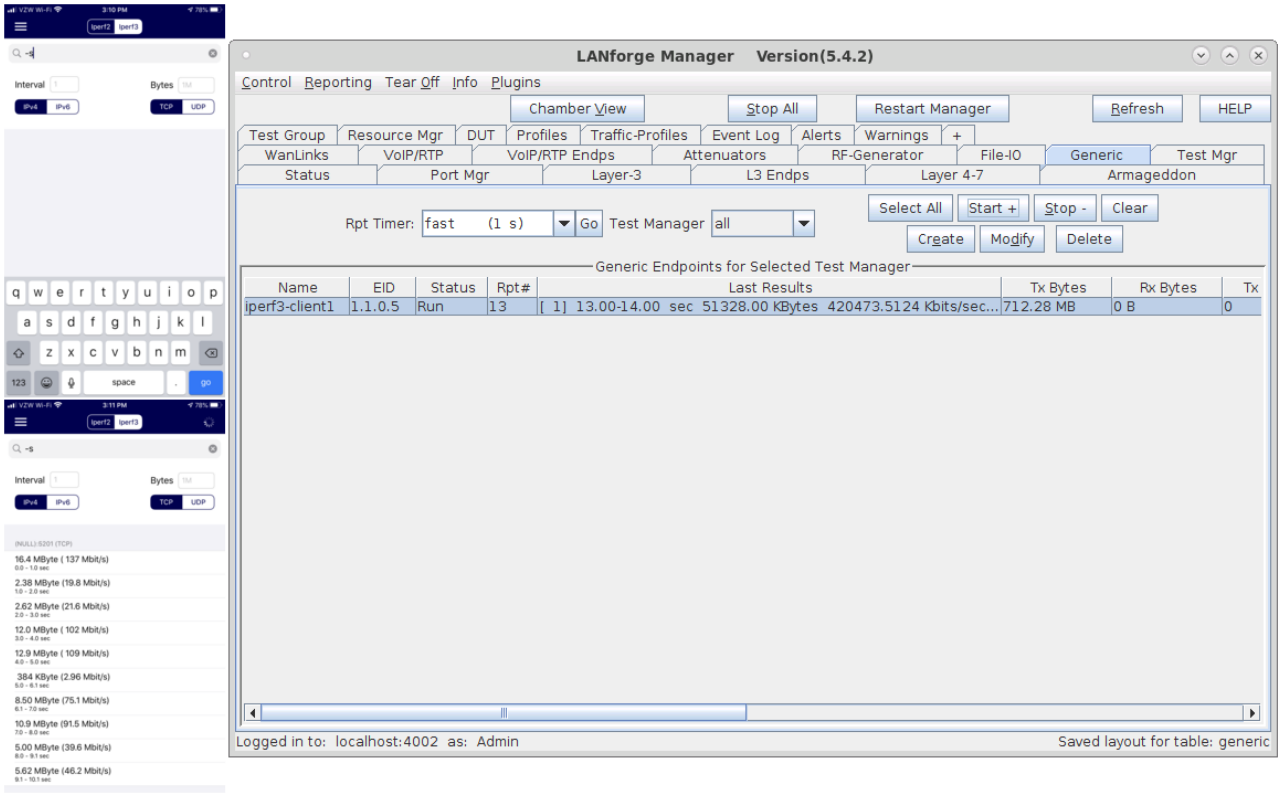
4. **If you want to run iperf3 on a mobile device, run it in server mode.**
One free and simple mobile application for iperf3 is provided by he.net



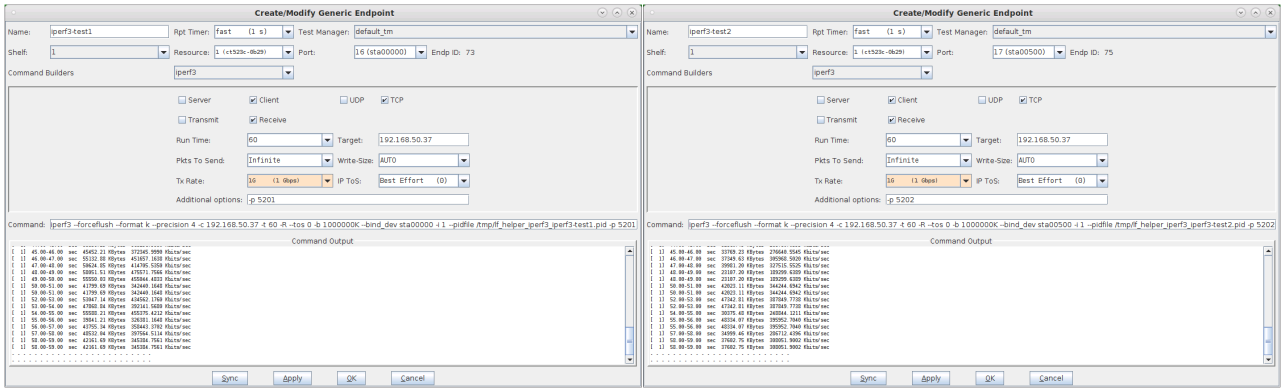
5. **To start any iperf3 test, start the server or servers first, then start the clients.**



6. **For mobile devices, start the iperf3 server on the mobile devices first, then start the clients.**



7. **Modify the endpoint to view the per iteration text results.**


Create/Modify Generic Endpoint
Name: iperf3-test1
Rpt Timer: fast (1 s)
Test Manager: default_tm
Shelf: 1
Resource: 1 (c1523c-0b29)
Port: 16 (sta00000)
Endp ID: 73
Command Builders
iperf3
Server
Client
UDP
TCP
Transmit
Receive
Run Time: 60
Target: 192.168.50.37
Pkts To Send: Infinite
Write-Size: AUTO
Tx Rate: 1G (1 Gbps)
IP ToS: Best Effort (0)
Additional options: -p 5201
Command: iperf3 -forceflush --format k --precision 4 -c 192.168.50.37 -t 60 -R --tos 0 -b 1000000K --bind_dev sta00000 -i 1 --pidfile /tmp/lf_helper_iperf3_iperf3-test1.pid -p 5201
Command Output
Sync
Apply
OK
Cancel
Create/Modify Generic Endpoint
Name: iperf3-test2
Rpt Timer: fast (1 s)
Test Manager: default_tm
Shelf: 1
Resource: 1 (c1523c-0b29)
Port: 17 (sta00500)
Endp ID: 75
Command Builders
iperf3
Server
Client
UDP
TCP
Transmit
Receive
Run Time: 60
Target: 192.168.50.37
Pkts To Send: Infinite
Write-Size: AUTO
Tx Rate: 1G (1 Gbps)
IP ToS: Best Effort (0)
Additional options: -p 5202
Command: iperf3 --forceflush --format k --precision 4 -c 192.168.50.37 -t 60 -R --tos 0 -b 1000000K --bind_dev sta00500 -i 1 --pidfile /tmp/lf_helper_iperf3_iperf3-test2.pid -p 5202
Command Output
Sync
Apply
OK
Cancel