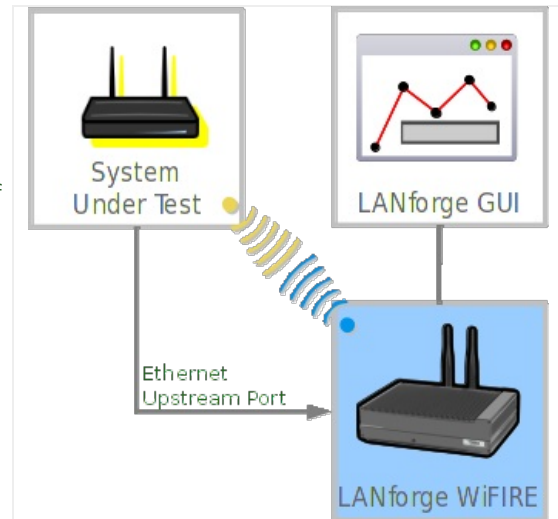


## Using iperf3 to Generate Traffic

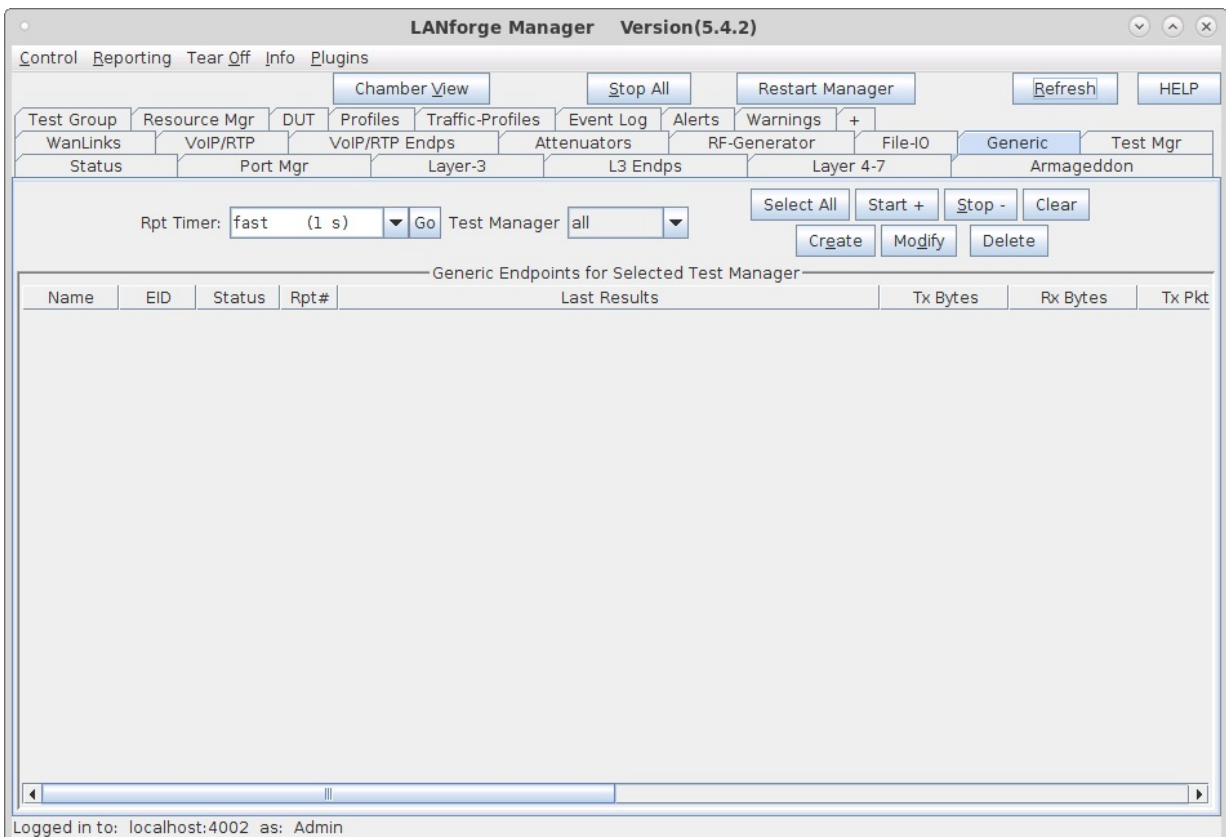
**Goal:** Set up virtual stations using a LANforge system, connect them to an AP under test, set up iperf3, and run tests.

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.

**Create/Modify Generic Endpoint**

Name: iperf3-server Rpt Timer: fast (1 s) Test Manager: default\_tm

Shelf: 1 Resource: 1 (ct523c-0b29) Port: 2 (eth2) Endp ID: 71

Command Builders: iperf3

Server  Client  UDP  TCP

Transmit  Receive

Run Time: 60 Target:

Pkts To Send: Infinite Write-Size: AUTO

Tx Rate: 1000 (1 Kbps) IP ToS: Best Effort (0)

Additional options:

Command:

Command Output

Sync Apply OK Cancel

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

**Create/Modify Generic Endpoint**

Name: iperf3-server Rpt Timer: fast (1 s) Test Manager: default\_tm

Shelf: 1 Resource: 1 (ct523c-0b29) Port: 2 (eth2) Endp ID: 71

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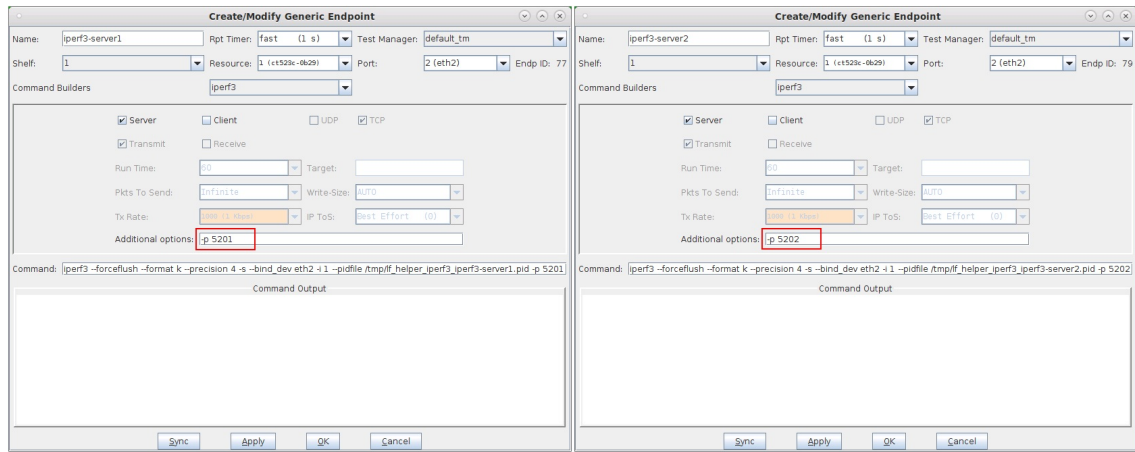
Additional options:

Command: iperf3 --forceflush --format k --precision 4 -s --bind\_dev eth2 -i 1 --pidfile /tmp/lf\_helper\_iperf3\_iperf3-server.pid

Command Output

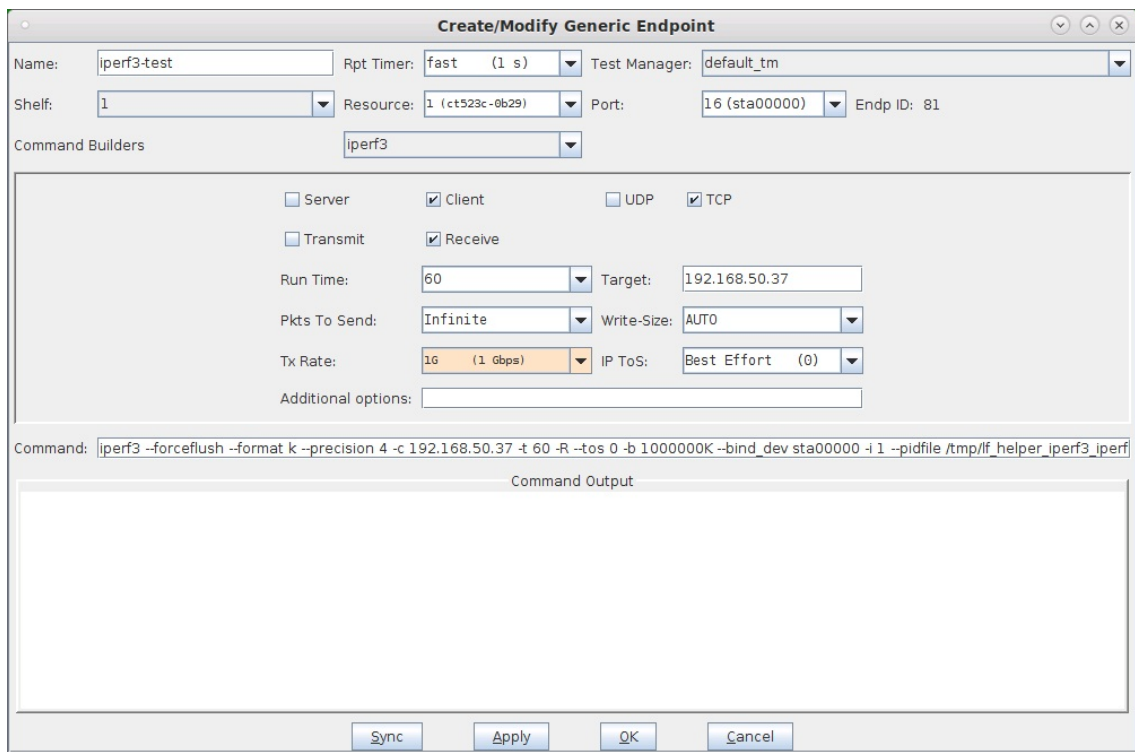
Sync Apply OK Cancel

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

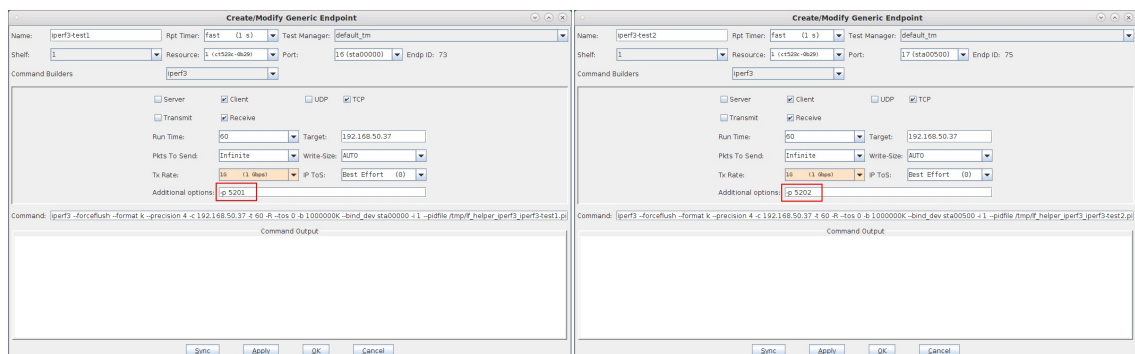


### 3. Create the iperf3 client.

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

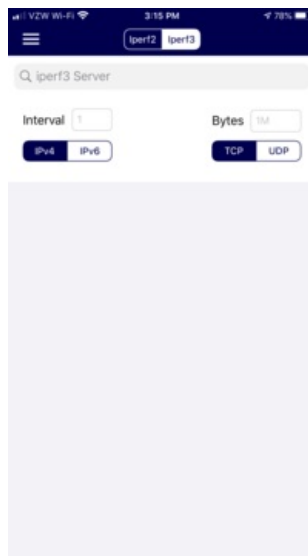


- B. For multiple iperf3 tests at a time, setup multiple clients using the corresponding IP ports as the servers.

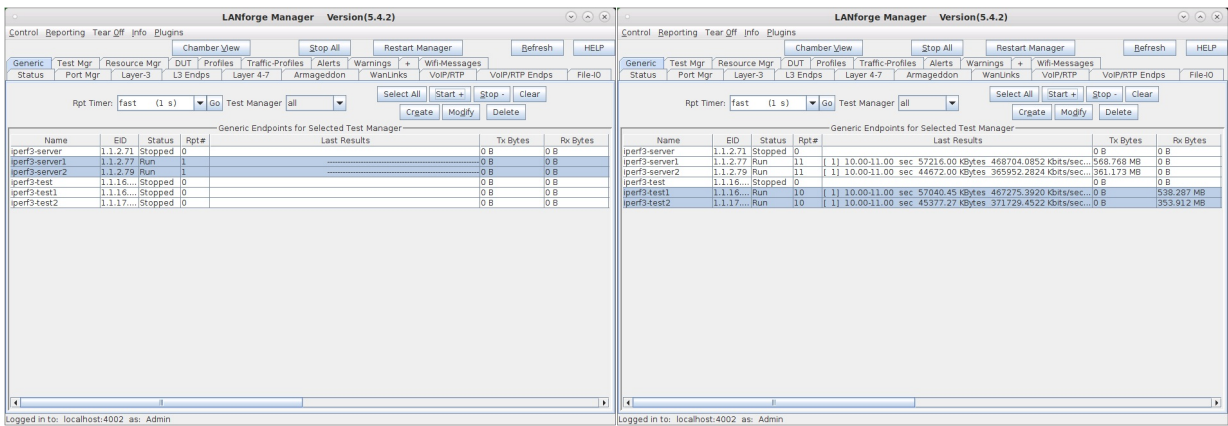


### 4. If you want to run iperf3 on a mobile device, run it in server mode.

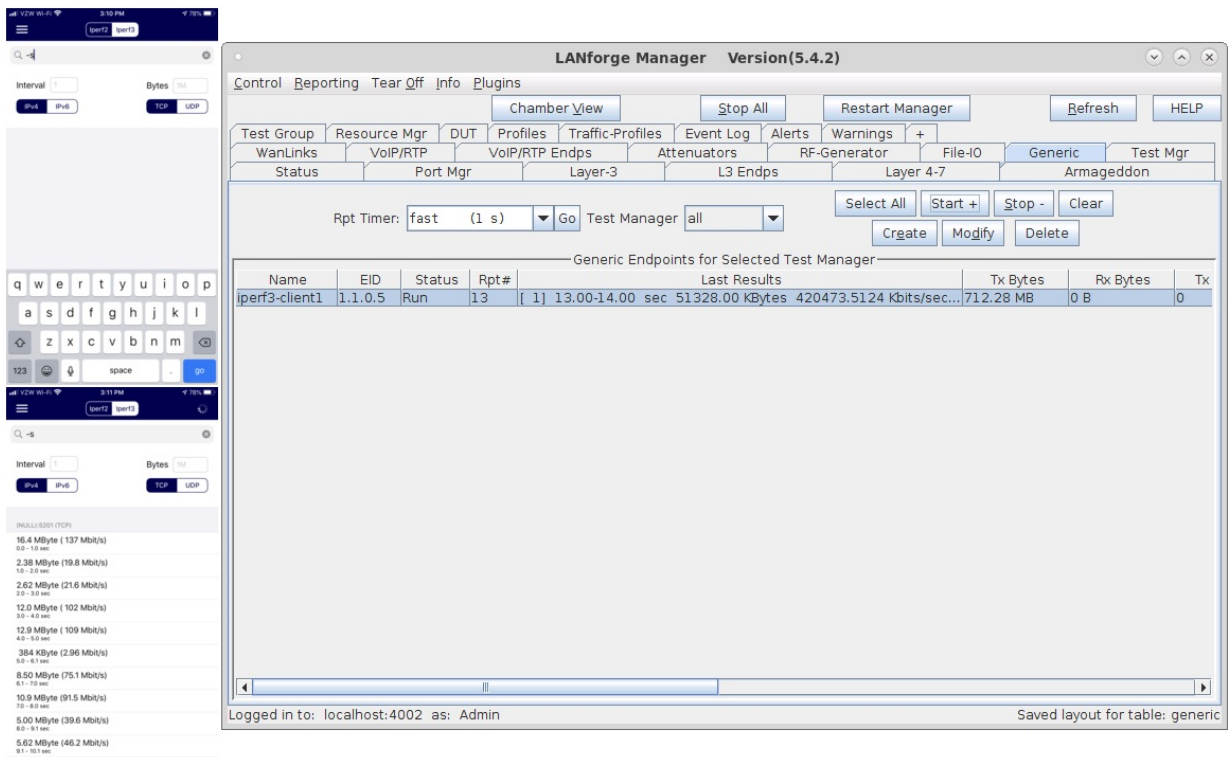
One free and simple mobile application for iperf3 is provided by [he.net](https://he.net)



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:  Rpt Timer:  Test Manager:

Shell:  Resource:  Port:  Endp ID: 73

Command Builders:

Server  Client  UDP  TCP  
 Transmit  Receive

Run Time:  Target:

Pkts To Send:  Write Size:

Tx Rate:   IP ToS:

Additional options:

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/uf_helper_iperf3_iperf3-test1.pid -p 5201`

Command Output

```

I 11 45:00:46:00 sec 65421 21 Pkts/sec 32296 9999 Rcv/Sec
I 11 45:00:47:00 sec 65112 20 Pkts/sec 41505 1830 Rcv/Sec
I 11 45:00:48:00 sec 65624 20 Pkts/sec 44376 1550 Rcv/Sec
I 11 45:00:49:00 sec 65852 19 Pkts/sec 45771 1700 Rcv/Sec
I 11 45:00:50:00 sec 65554 20 Pkts/sec 45544 4833 Rcv/Sec
I 11 45:00:51:00 sec 65779 19 Pkts/sec 46344 1460 Rcv/Sec
I 11 45:00:52:00 sec 65799 19 Pkts/sec 46344 1460 Rcv/Sec
I 11 45:00:53:00 sec 65847 18 Pkts/sec 46652 1390 Rcv/Sec
I 11 45:00:54:00 sec 65866 18 Pkts/sec 46652 1390 Rcv/Sec
I 11 45:00:55:00 sec 65828 21 Pkts/sec 46575 4212 Rcv/Sec
I 11 45:00:56:00 sec 65861 18 Pkts/sec 46521 1460 Rcv/Sec
I 11 45:00:57:00 sec 65775 24 Pkts/sec 45844 3792 Rcv/Sec
I 11 45:00:58:00 sec 65221 24 Pkts/sec 46248 1941 Rcv/Sec
I 11 45:00:59:00 sec 42181 89 Pkts/sec 46254 1961 Rcv/Sec

```

Buttons: Sync Apply OK Cancel

### Create/Modify Generic Endpoint

Name:  Rpt Timer:  Test Manager:

Shell:  Resource:  Port:  Endp ID: 75

Command Builders:

Server  Client  UDP  TCP  
 Transmit  Receive

Run Time:  Target:

Pkts To Send:  Write Size:

Tx Rate:   IP ToS:

Additional options:

Command: `iperf3 -forceflush -format k -precision 4 -c 192.168.50.37 -t 60 -R -tos 0 -b 1000000K -bind_dev sta005000 -i 1 -pidfile tmp/uf_helper_iperf3_iperf3-test2.pid -p 5202`

Command Output

```

I 11 45:00:46:00 sec 32742 22 Pkts/sec 27648 924 Rcv/Sec
I 11 45:00:47:00 sec 32940 20 Pkts/sec 30560 5024 Rcv/Sec
I 11 45:00:48:00 sec 33624 20 Pkts/sec 32712 5224 Rcv/Sec
I 11 45:00:49:00 sec 33336 20 Pkts/sec 33200 5224 Rcv/Sec
I 11 45:00:50:00 sec 33287 20 Pkts/sec 33200 5224 Rcv/Sec
I 11 45:00:51:00 sec 42652 11 Pkts/sec 34244 494 Rcv/Sec
I 11 45:00:52:00 sec 42602 11 Pkts/sec 34244 494 Rcv/Sec
I 11 45:00:53:00 sec 42744 21 Pkts/sec 35160 772 Rcv/Sec
I 11 45:00:54:00 sec 42624 21 Pkts/sec 35160 772 Rcv/Sec
I 11 45:00:55:00 sec 42675 20 Pkts/sec 34544 1211 Rcv/Sec
I 11 45:00:56:00 sec 42224 27 Pkts/sec 35952 1944 Rcv/Sec
I 11 45:00:57:00 sec 42224 27 Pkts/sec 35952 1944 Rcv/Sec
I 11 45:00:58:00 sec 37624 20 Pkts/sec 36852 3000 Rcv/Sec
I 11 45:00:59:00 sec 37624 20 Pkts/sec 36852 3000 Rcv/Sec

```

Buttons: Sync Apply OK Cancel

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