Successfully set up CLI

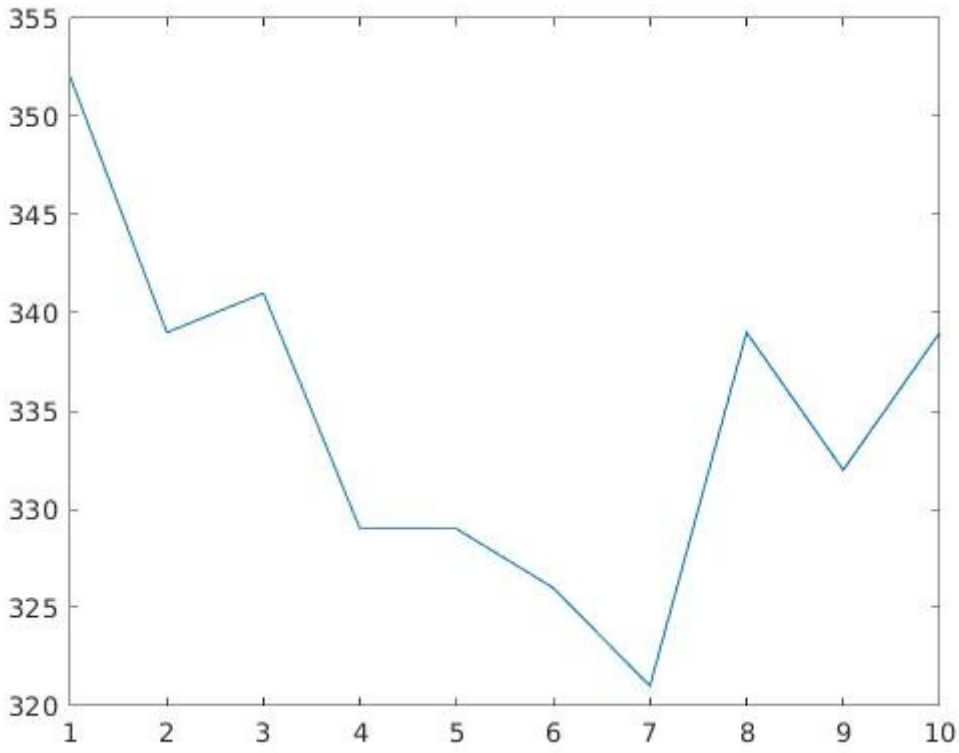
Repeating iperf experiment from assignment 2

1. Set lab machine as iperf server, Raspberry Pi as client.
TCP, 10s long experiment.

```
Server listening on TCP port 5001
Binding to local address 192.168.10.1
TCP window size:  128 KByte (default)
------------------------------------------------------------
[  4] local 192.168.10.1 port 5001 connected with 192.168.10.2 port 49762
[ ID] Interval       Transfer     Bandwidth
[  4]  0.0-10.0 sec   381 MBytes   318 Mbits/sec
[  4] local 192.168.10.1 port 5001 connected with 192.168.10.2 port 49764
[  4]  0.0-10.0 sec   383 MBytes   320 Mbits/sec
```

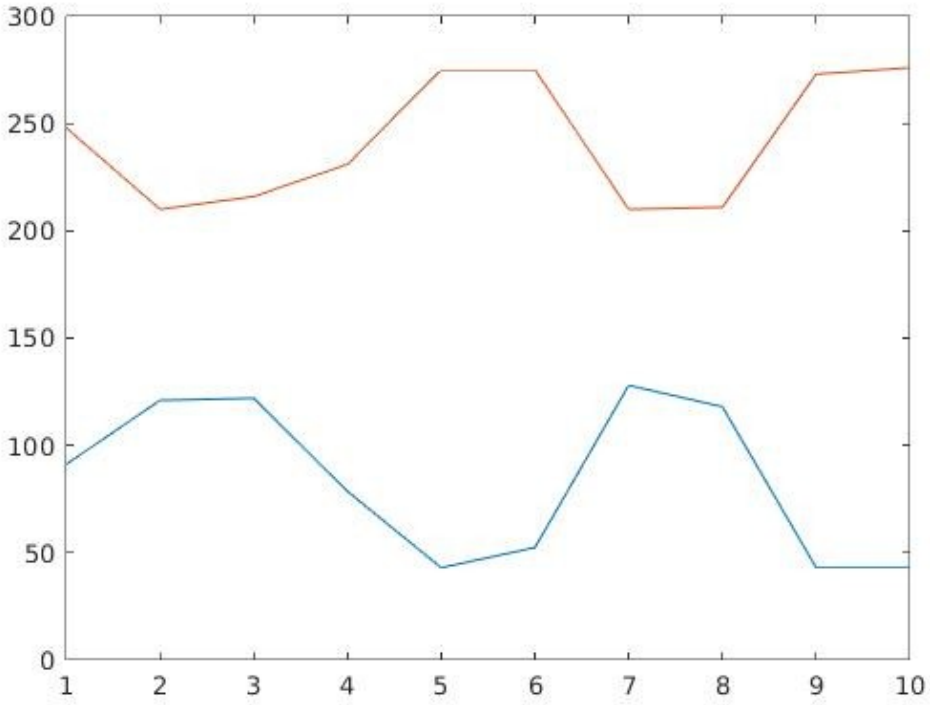
The bandwidth has decreased from around 350 Mbits/sec to around 320 Mbits/sec compared to assignment 2.

2. Set raspberry Pi as iperf server, lab machine as client.
TCP, 10s long experiment, 1s interval

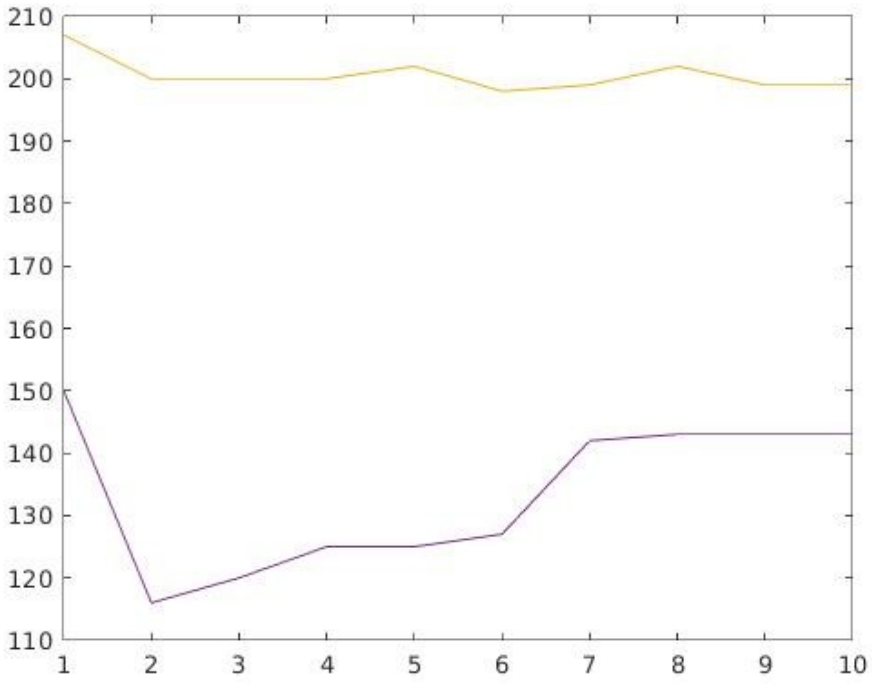


y-axis: Bandwidth in Mbits/s x-axis: time/s
Average around 335Mb/s (Same as in assignment 2).

3. Set Raspberry Pi as iperf server, lab machine as client.
Bi-directional iperf, TCP, 10s long experiment with 1s interval. The upper line is Raspberry Pi to Machine, and blue line is machine to raspberry pi, which is odd (should be other way round)



X-axis: time/s Y-axis: Bandwidth in Mbits/s
When I reran the test.



X-axis: time/s Y-axis: Bandwidth in Mbits/s

The values now align with what I saw in assignment 2, where machine to raspberry pi is faster than raspberry pi to machine. (Yellow line is Machine to Raspberry pi, purple line is Raspberry pi to machine).
4. One way iperf using UDP. Machine to Raspberry Pi server.
Tests: 5s, Bandwidths: 100kb/s, 1mb/s, 100mb/s.
No packet losses registered until bandwidth limit is at 1000mb/s

```
orie4264@engs-labb09:~/CWM-ProgNets/assignment3$ iperf -c 192.168.10.2 -t 5 -b 1000m -u
------------------------------------------------------------
Client connecting to 192.168.10.2, UDP port 5001
Sending 1470 byte datagrams, IPG target: 11.76 us (kalman adjust)
UDP buffer size:  208 KByte (default)
------------------------------------------------------------
[  3] local 192.168.10.1 port 53584 connected with 192.168.10.2 port 5001
[ ID] Interval       Transfer     Bandwidth
[  3]  0.0- 5.0 sec   213 MBytes   357 Mbits/sec
[  3] Sent 151773 datagrams
[  3] Server Report:
[  3]  0.0- 5.0 sec   212 MBytes   356 Mbits/sec   0.029 ms  315/151773 (0.21%)
```

No difference from assignment 2, except for small drops in bandwidth

When running on ip address 192.168.10.250, bandwidth = 316Mbits/sec when Pi machine = client, Lab machine = server

When Pi machine = server, Lab machine = client. Bandwidth = 338 Mbits/s

When changing egress port to 3.
When Pi machine = client, lab machine = server. Bandwidth = 350Mbits/s
When Pi machine = server, lab machine = client. Bandwidth = 355Mbits/s
No duplicate pings.

When changing mac address.
Still getting proper bandwidth, but no duplicate pings.