Report Lab2

(i)

Sahasra Ranjan

MAC address: 14:7d:da:2a:cb:af

IPv4: 192.168.1.101

MTU(*Maximum Transmission Unit*): 1500

```
en0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
  options=400<CHANNEL_IO>
  ether 14:7d:da:2a:cb:af
  inet6 fe80::1c6c:a29:51d2:d1f5%en0 prefixlen 64 optimistic secured scopeid 0x6
  inet 192.168.1.101 netmask 0xffffff00 broadcast 192.168.1.255
  nd6 options=201<PERFORMNUD,DAD>
  media: autoselect
  status: active
```

(ii)

traceroute www.google.com

- 64 hops max

```
traceroute to www.google.com (172.217.166.36), 64 hops max, 52 byte packets
 1  192.168.1.1 (192.168.1.1)  2.858 ms  2.222 ms  1.248 ms
 2  10.25.187.1 (10.25.187.1)  3.640 ms  10.213 ms  6.334 ms
 3  172.31.31.113 (172.31.31.113)  14.924 ms  15.391 ms  14.607 ms
 4  172.31.31.153 (172.31.31.153)  650.177 ms  77.871 ms  23.075 ms
 5  * * *
 6  dynamic-121.178.225.103.sitibroadband.in (103.225.178.121)  21.886 ms  14.175 ms
17.558 ms
 7  172.31.1.66 (172.31.1.66)  15.704 ms  14.441 ms  13.853 ms
 8  209.85.173.49 (209.85.173.49)  46.217 ms  45.604 ms  45.735 ms
```

```
 9   108.170.248.209 (108.170.248.209)  47.276 ms
     108.170.248.193 (108.170.248.193)  46.337 ms
     108.170.248.209 (108.170.248.209)  47.521 ms
10   108.170.234.209 (108.170.234.209)  47.699 ms
     108.170.235.51 (108.170.235.51)  53.199 ms  54.047 ms
11   bom07s18-in-f4.1e100.net (172.217.166.36)  46.040 ms  45.862 ms  46.269 ms
```

traceroute www.cnn.com

```
traceroute to turner-tls.map.fastly.net (199.232.253.67), 64 hops max, 72 byte
packets
 1   192.168.1.1 (192.168.1.1)  2.137 ms  1.435 ms  2.229 ms
 2   10.25.187.1 (10.25.187.1)  3.715 ms  5.728 ms  3.104 ms
 3   172.31.31.113 (172.31.31.113)  22.852 ms  19.470 ms  19.249 ms
 4   * * *
 5   * * *
 6   dynamic-121.178.225.103.sitibroadband.in (103.225.178.121)  41.338 ms  26.139 ms
18.166 ms
 7   172.31.1.66 (172.31.1.66)  18.016 ms  18.480 ms  17.670 ms
 8   115.113.172.1.static-kolkata.vsnl.net.in (115.113.172.1)  20.981 ms  27.058 ms
18.645 ms
 9   172.28.162.209 (172.28.162.209)  50.335 ms  55.671 ms  50.035 ms
10   172.28.132.237 (172.28.132.237)  52.179 ms  53.739 ms  56.856 ms
11   115.110.206.150.static-mumbai.vsnl.net.in (115.110.206.150)  59.801 ms  59.522 ms
60.250 ms
12   199.232.253.67 (199.232.253.67)  59.064 ms  59.988 ms  59.665 ms
```

traceroute www.iitd.ac.in

```
traceroute to www.iitd.ac.in (103.27.9.24), 64 hops max, 72 byte packets
 1   192.168.1.1 (192.168.1.1)  4.005 ms  2.344 ms  1.517 ms
 2   10.25.187.1 (10.25.187.1)  18.935 ms  4.318 ms  4.599 ms
 3   172.31.31.113 (172.31.31.113)  20.534 ms  19.235 ms  18.270 ms
 4   * * *
 5   * * *
 6   dynamic-121.178.225.103.sitibroadband.in (103.225.178.121)  25.974 ms  17.833 ms
18.678 ms
 7   172.31.1.66 (172.31.1.66)  19.008 ms  21.855 ms  18.519 ms
 8   115.113.172.1.static-kolkata.vsnl.net.in (115.113.172.1)  19.407 ms  18.927 ms
23.413 ms
 9   172.31.169.85 (172.31.169.85)  60.093 ms  63.174 ms  60.568 ms
10   14.140.210.22.static-delhi-vsnl.net.in (14.140.210.22)  60.933 ms  62.221 ms
60.821 ms
11   * * *
12   * * *
13   * * *
```

```
14  103.27.9.24 (103.27.9.24)  63.072 ms  64.514 ms  61.559 ms
15  103.27.9.24 (103.27.9.24)  61.610 ms  61.875 ms  62.003 ms
16  103.27.9.24 (103.27.9.24)  61.317 ms  61.668 ms  63.931 ms
```

traceroute www.iitd.ac.in

We used VPN for this since the server refused to connect to client

```
traceroute to www.iitb.ac.in (10.204.1.112), 64 hops max, 72 byte packets
 1  www.ctara.iitb.ac.in (10.204.1.112)  55.077 ms  57.174 ms *
```

(iii)

Average RTT obtained

- www.google.com: 52.212 ms
- www.cnn.com: 53.784 ms
- www.iitd.ac.in: 69.752 ms
- www.iitb.ac.in: `request timeout`
- www.iitb.ac.in: 64.017 ms (with VPN)

Q) are pings to servers more if the server is geographically further away? No (reason??)

(iv)

TCP

iperf3 −c iperf.biznetnetworks.com

```
Connecting to host iperf.biznetnetworks.com, port 5201
[  6] local 192.168.1.101 port 61818 connected to 117.102.109.186 port 5201
[ ID] Interval           Transfer     Bandwidth
[  6]   0.00–1.00   sec  1.87 MBytes  15.6 Mbits/sec
[  6]   1.00–2.00   sec  3.83 MBytes  32.2 Mbits/sec
[  6]   2.00–3.00   sec  3.13 MBytes  26.2 Mbits/sec
[  6]   3.00–4.00   sec  2.17 MBytes  18.2 Mbits/sec
```

```
[  6]    4.00-5.00   sec  2.69 MBytes  22.6 Mbits/sec
[  6]    5.00-6.00   sec  3.03 MBytes  25.4 Mbits/sec
[  6]    6.00-7.00   sec  3.15 MBytes  26.4 Mbits/sec
[  6]    7.00-8.00   sec  1.88 MBytes  15.8 Mbits/sec
[  6]    8.00-9.00   sec  2.30 MBytes  19.3 Mbits/sec
[  6]    9.00-10.00  sec  2.31 MBytes  19.4 Mbits/sec
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval          Transfer     Bandwidth
[  6]    0.00-10.00  sec  26.4 MBytes  22.1 Mbits/sec                   sender
[  6]    0.00-10.00  sec  25.8 MBytes  21.6 Mbits/sec                   receiver

iperf Done.
```

iperf -c iperf.scottlinux.com

```
[  6] local 192.168.1.101 port 61831 connected to 45.33.39.39 port 5201
[ ID] Interval          Transfer     Bandwidth
[  6]    0.00-1.00   sec   143 KBytes  1.17 Mbits/sec
[  6]    1.00-2.00   sec   536 KBytes  4.39 Mbits/sec
[  6]    2.00-3.00   sec  1.45 MBytes  12.1 Mbits/sec
[  6]    3.00-4.00   sec  2.91 MBytes  24.5 Mbits/sec
[  6]    4.00-5.00   sec  4.88 MBytes  40.9 Mbits/sec
[  6]    5.00-6.00   sec  3.44 MBytes  28.9 Mbits/sec
[  6]    6.00-7.00   sec  3.14 MBytes  26.4 Mbits/sec
[  6]    7.00-8.00   sec  2.57 MBytes  21.6 Mbits/sec
[  6]    8.00-9.00   sec   824 KBytes  6.75 Mbits/sec
[  6]    9.00-10.00  sec  2.20 MBytes  18.5 Mbits/sec
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval          Transfer     Bandwidth
[  6]    0.00-10.00  sec  22.1 MBytes  18.5 Mbits/sec                   sender
[  6]    0.00-10.00  sec  21.2 MBytes  17.8 Mbits/sec                   receiver

iperf Done.
```

UDP

iperf.scottlinux.com

1M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 1M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 63259 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec   120 KBytes   980 Kbits/sec  15
[  6]   1.00-2.00   sec   128 KBytes  1.05 Mbits/sec  16
[  6]   2.00-3.00   sec   120 KBytes   984 Kbits/sec  15
[  6]   3.00-4.00   sec   120 KBytes   983 Kbits/sec  15
[  6]   4.00-5.00   sec   120 KBytes   983 Kbits/sec  15
[  6]   5.00-6.00   sec   128 KBytes  1.05 Mbits/sec  16
[  6]   6.00-7.00   sec   120 KBytes   983 Kbits/sec  15
[  6]   7.00-8.00   sec   120 KBytes   983 Kbits/sec  15
[  6]   8.00-9.00   sec   120 KBytes   982 Kbits/sec  15
[  6]   9.00-10.00  sec   128 KBytes  1.05 Mbits/sec  16
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  1.20 MBytes  1.00 Mbits/sec  5503895.693 ms  0/153 (0%)
[  6] Sent 153 datagrams

iperf Done.
```

2M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 2M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 52163 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec   232 KBytes  1.89 Mbits/sec  29
[  6]   1.00-2.00   sec   248 KBytes  2.03 Mbits/sec  31
[  6]   2.00-3.00   sec   240 KBytes  1.97 Mbits/sec  30
[  6]   3.00-4.00   sec   248 KBytes  2.03 Mbits/sec  31
[  6]   4.00-5.00   sec   240 KBytes  1.97 Mbits/sec  30
[  6]   5.00-6.00   sec   248 KBytes  2.03 Mbits/sec  31
[  6]   6.00-7.00   sec   240 KBytes  1.96 Mbits/sec  30
[  6]   7.00-8.00   sec   248 KBytes  2.03 Mbits/sec  31
[  6]   8.00-9.00   sec   240 KBytes  1.97 Mbits/sec  30
[  6]   9.00-10.00  sec   248 KBytes  2.03 Mbits/sec  31
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  2.38 MBytes  1.99 Mbits/sec  346.473 ms  0/303 (0%)
[  6] Sent 303 datagrams

iperf Done.
```

4M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 4M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 52838 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec   448 KBytes  3.65 Mbits/sec  56
[  6]   1.00-2.00   sec   496 KBytes  4.08 Mbits/sec  62
[  6]   2.00-3.00   sec   488 KBytes  3.99 Mbits/sec  61
[  6]   3.00-4.00   sec   488 KBytes  4.00 Mbits/sec  61
[  6]   4.00-5.00   sec   488 KBytes  4.00 Mbits/sec  61
[  6]   5.00-6.00   sec   488 KBytes  4.00 Mbits/sec  61
[  6]   6.00-7.00   sec   488 KBytes  4.00 Mbits/sec  61
[  6]   7.00-8.00   sec   488 KBytes  3.99 Mbits/sec  61
[  6]   8.00-9.00   sec   488 KBytes  4.00 Mbits/sec  61
[  6]   9.00-10.00  sec   488 KBytes  4.00 Mbits/sec  61
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  4.73 MBytes  3.97 Mbits/sec  1.514 ms  0/605 (0%)
[  6] Sent 605 datagrams

iperf Done.
```

8M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 8M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 65043 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec   896 KBytes  7.33 Mbits/sec  112
[  6]   1.00-2.00   sec   976 KBytes  7.97 Mbits/sec  122
[  6]   2.00-3.00   sec   976 KBytes  8.02 Mbits/sec  122
[  6]   3.00-4.00   sec   976 KBytes  8.00 Mbits/sec  122
[  6]   4.00-5.00   sec   976 KBytes  8.00 Mbits/sec  122
[  6]   5.00-6.00   sec   976 KBytes  7.97 Mbits/sec  122
[  6]   6.00-7.00   sec   976 KBytes  8.02 Mbits/sec  122
[  6]   7.00-8.00   sec   976 KBytes  8.00 Mbits/sec  122
[  6]   8.00-9.00   sec   976 KBytes  7.99 Mbits/sec  122
[  6]   9.00-10.00  sec   976 KBytes  8.00 Mbits/sec  122
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  9.45 MBytes  7.93 Mbits/sec  1.791 ms  0/1210 (0%)
[  6] Sent 1210 datagrams

iperf Done.
```

16M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 16M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 54045 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec  1.73 MBytes  14.4 Mbits/sec  221
[  6]   1.00-2.01   sec  1.91 MBytes  16.0 Mbits/sec  245
[  6]   2.01-3.01   sec  1.91 MBytes  16.1 Mbits/sec  245
[  6]   3.01-4.00   sec  1.90 MBytes  15.9 Mbits/sec  243
[  6]   4.00-5.00   sec  1.91 MBytes  16.1 Mbits/sec  245
[  6]   5.00-6.00   sec  1.90 MBytes  15.9 Mbits/sec  243
[  6]   6.00-7.00   sec  1.91 MBytes  16.1 Mbits/sec  245
[  6]   7.00-8.00   sec  1.91 MBytes  16.0 Mbits/sec  244
[  6]   8.00-9.00   sec  1.91 MBytes  16.0 Mbits/sec  244
[  6]   9.00-10.01  sec  1.91 MBytes  15.9 Mbits/sec  244
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.01  sec  18.9 MBytes  15.8 Mbits/sec  2.283 ms  71/2419 (2.9%)
[  6] Sent 2419 datagrams

iperf Done.
```

32M

```
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 54571 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.01   sec  3.47 MBytes  28.9 Mbits/sec  444
[  6]   1.01-2.01   sec  3.81 MBytes  32.0 Mbits/sec  488
[  6]   2.01-3.01   sec  3.82 MBytes  32.0 Mbits/sec  489
[  6]   3.01-4.01   sec  3.80 MBytes  31.9 Mbits/sec  486
[  6]   4.01-5.00   sec  3.81 MBytes  32.0 Mbits/sec  488
[  6]   5.00-6.00   sec  3.84 MBytes  32.2 Mbits/sec  491
[  6]   6.00-7.00   sec  3.81 MBytes  32.0 Mbits/sec  488
[  6]   7.00-8.00   sec  3.81 MBytes  32.0 Mbits/sec  488
[  6]   8.00-9.01   sec  3.81 MBytes  31.8 Mbits/sec  488
[  6]   9.01-10.01  sec  3.81 MBytes  32.0 Mbits/sec  488
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.01  sec  37.8 MBytes  31.7 Mbits/sec  4.403 ms  10/4838 (0.21%)
[  6] Sent 4838 datagrams

iperf Done.
```

64M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 64M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 52915 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.01   sec  6.90 MBytes  57.6 Mbits/sec  883
[  6]   1.01-2.01   sec  7.66 MBytes  64.3 Mbits/sec  981
[  6]   2.01-3.00   sec  7.59 MBytes  63.7 Mbits/sec  972
[  6]   3.00-4.00   sec  7.66 MBytes  64.6 Mbits/sec  981
[  6]   4.00-5.00   sec  7.62 MBytes  63.7 Mbits/sec  976
[  6]   5.00-6.00   sec  7.63 MBytes  64.0 Mbits/sec  977
[  6]   6.00-7.00   sec  7.63 MBytes  64.1 Mbits/sec  977
[  6]   7.00-8.00   sec  7.60 MBytes  64.0 Mbits/sec  973
[  6]   8.00-9.00   sec  7.63 MBytes  64.0 Mbits/sec  977
[  6]   9.00-10.00  sec  7.65 MBytes  63.9 Mbits/sec  981
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  75.6 MBytes  63.4 Mbits/sec  1.168 ms  6826/9645 (71%)
[  6] Sent 9645 datagrams

iperf Done.
```

128M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 128M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 59708 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec  13.8 MBytes   115 Mbits/sec  1764
[  6]   1.00-2.00   sec  13.8 MBytes   116 Mbits/sec  1778
[  6]   2.00-3.00   sec  16.7 MBytes   140 Mbits/sec  2139
[  6]   3.00-4.00   sec  13.8 MBytes   116 Mbits/sec  1776
[  6]   4.00-5.00   sec  16.7 MBytes   140 Mbits/sec  2138
[  6]   5.00-6.00   sec  15.4 MBytes   128 Mbits/sec  1974
[  6]   6.00-7.00   sec  16.2 MBytes   136 Mbits/sec  2081
[  6]   7.00-8.00   sec  14.2 MBytes   119 Mbits/sec  1826
[  6]   8.00-9.00   sec  13.8 MBytes   115 Mbits/sec  1766
[  6]   9.00-10.00  sec  16.8 MBytes   141 Mbits/sec  2153
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter      Lost/Total Datagrams
[  6]   0.00-10.00  sec   151 MBytes   127 Mbits/sec  469.606 ms  18046/18823 (96%)
[  6] Sent 18823 datagrams

iperf Done.
```

256M

```
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 51463 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec  28.7 MBytes   240 Mbits/sec  3679
[  6]   1.00-2.00   sec  29.6 MBytes   248 Mbits/sec  3786
[  6]   2.00-3.00   sec  30.6 MBytes   257 Mbits/sec  3917
[  6]   3.00-4.00   sec  30.4 MBytes   255 Mbits/sec  3896
[  6]   4.00-5.00   sec  32.6 MBytes   274 Mbits/sec  4176
[  6]   5.00-6.00   sec  28.5 MBytes   238 Mbits/sec  3651
[  6]   6.00-7.00   sec  32.4 MBytes   272 Mbits/sec  4152
[  6]   7.00-8.00   sec  23.2 MBytes   194 Mbits/sec  2970
[  6]   8.00-9.00   sec  35.9 MBytes   302 Mbits/sec  4598
[  6]   9.00-10.00  sec  30.4 MBytes   255 Mbits/sec  3899
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec   302 MBytes   254 Mbits/sec  285.509 ms  37857/38163 (99%)
[  6] Sent 38163 datagrams

iperf Done.
```

512M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 512M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 55046 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec  55.7 MBytes   467 Mbits/sec  7133
[  6]   1.00-2.00   sec  54.9 MBytes   459 Mbits/sec  7031
[  6]   2.00-3.00   sec  61.2 MBytes   514 Mbits/sec  7841
[  6]   3.00-4.00   sec  67.1 MBytes   562 Mbits/sec  8585
[  6]   4.00-5.00   sec  61.2 MBytes   514 Mbits/sec  7839
[  6]   5.00-6.00   sec  60.7 MBytes   509 Mbits/sec  7773
[  6]   6.00-7.00   sec  43.0 MBytes   360 Mbits/sec  5503
[  6]   7.00-8.00   sec  79.2 MBytes   664 Mbits/sec  10133
[  6]   8.00-9.00   sec  65.8 MBytes   555 Mbits/sec  8427
[  6]   9.00-10.00  sec  50.2 MBytes   421 Mbits/sec  6425
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec   599 MBytes   502 Mbits/sec  300919930.215 ms  59157/59248
(1e+02%)
[  6] Sent 59248 datagrams

iperf Done.
```

1024M

```
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 54506 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec   113 MBytes   950 Mbits/sec  14510
[  6]   1.00-2.00   sec   122 MBytes  1.02 Gbits/sec  15554
[  6]   2.00-3.00   sec   122 MBytes  1.02 Gbits/sec  15635
[  6]   3.00-4.00   sec   122 MBytes  1.02 Gbits/sec  15622
[  6]   4.00-5.00   sec   122 MBytes  1.02 Gbits/sec  15648
[  6]   5.00-6.00   sec   122 MBytes  1.03 Gbits/sec  15622
[  6]   6.00-7.00   sec   122 MBytes  1.02 Gbits/sec  15627
[  6]   7.00-8.00   sec   122 MBytes  1.02 Gbits/sec  15615
[  6]   8.00-9.00   sec   122 MBytes  1.02 Gbits/sec  15639
[  6]   9.00-10.00  sec   120 MBytes  1.01 Gbits/sec  15387
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  1.18 GBytes  1.01 Gbits/sec  96.536 ms  154018/154644
(1e+02%)
[  6] Sent 154644 datagrams

iperf Done.
```

2048M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 2048M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 54948 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec   236 MBytes  1.97 Gbits/sec  30144
[  6]   1.00-2.00   sec   240 MBytes  2.02 Gbits/sec  30775
[  6]   2.00-3.00   sec   243 MBytes  2.04 Gbits/sec  31120
[  6]   3.00-4.00   sec   246 MBytes  2.07 Gbits/sec  31472
[  6]   4.00-5.00   sec   244 MBytes  2.04 Gbits/sec  31191
[  6]   5.00-6.01   sec   242 MBytes  2.03 Gbits/sec  31003
[  6]   6.01-7.00   sec   246 MBytes  2.07 Gbits/sec  31501
[  6]   7.00-8.00   sec   244 MBytes  2.05 Gbits/sec  31229
[  6]   8.00-9.00   sec   244 MBytes  2.04 Gbits/sec  31218
[  6]   9.00-10.00  sec   245 MBytes  2.06 Gbits/sec  31357
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  2.37 GBytes  2.04 Gbits/sec  6679689.929 ms  273180/273330
(1e+02%)
[  6] Sent 273330 datagrams

iperf Done.
```

4096M

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 4096M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 55191 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec   388 MBytes  3.25 Gbits/sec  49664
[  6]   1.00-2.00   sec   570 MBytes  4.78 Gbits/sec  72916
[  6]   2.00-3.00   sec   487 MBytes  4.09 Gbits/sec  62359
[  6]   3.00-4.00   sec   487 MBytes  4.09 Gbits/sec  62365
[  6]   4.00-5.00   sec   495 MBytes  4.15 Gbits/sec  63351
[  6]   5.00-6.00   sec   484 MBytes  4.06 Gbits/sec  61942
[  6]   6.00-7.00   sec   468 MBytes  3.92 Gbits/sec  59888
[  6]   7.00-8.00   sec   521 MBytes  4.37 Gbits/sec  66716
[  6]   8.00-9.00   sec   477 MBytes  4.00 Gbits/sec  61023
[  6]   9.00-10.00  sec   505 MBytes  4.24 Gbits/sec  64633
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  4.77 GBytes  4.10 Gbits/sec  321678.496 ms  602885/603082
(1e+02%)
[  6] Sent 603082 datagrams

iperf Done.
```

8192M (Here we got throughput less than the specified UDP rate)

```
sahasraranjan@Sahasra-MacBook-Pro apps % ./iperf3 -c iperf.scottlinux.com -u -b 8192M
Connecting to host iperf.scottlinux.com, port 5201
[  6] local 192.168.1.101 port 55616 connected to 45.33.39.39 port 5201
[ ID] Interval           Transfer     Bandwidth       Total Datagrams
[  6]   0.00-1.00   sec   467 MBytes  3.91 Gbits/sec  59736
[  6]   1.00-2.00   sec   638 MBytes  5.35 Gbits/sec  81648
[  6]   2.00-3.00   sec   676 MBytes  5.67 Gbits/sec  86526
[  6]   3.00-4.00   sec   645 MBytes  5.41 Gbits/sec  82542
[  6]   4.00-5.00   sec   655 MBytes  5.49 Gbits/sec  83824
[  6]   5.00-6.00   sec   686 MBytes  5.75 Gbits/sec  87760
[  6]   6.00-7.00   sec   668 MBytes  5.60 Gbits/sec  85463
[  6]   7.00-8.00   sec   685 MBytes  5.74 Gbits/sec  87623
[  6]   8.00-9.00   sec   695 MBytes  5.83 Gbits/sec  88952
[  6]   9.00-10.00  sec   695 MBytes  5.83 Gbits/sec  88910
- - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bandwidth       Jitter    Lost/Total Datagrams
[  6]   0.00-10.00  sec  6.36 GBytes  5.46 Gbits/sec  10472026883.641 ms
776924/776960 (1e+02%)
[  6] Sent 776960 datagrams

iperf Done.
```