**Client and Server on the same Machine**:

Running 20 pings:

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=1 ttl=64 time=0.908 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=2 ttl=64 time=0.462 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=3 ttl=64 time=0.538 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=4 ttl=64 time=0.457 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=5 ttl=64 time=0.412 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=6 ttl=64 time=0.614 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=7 ttl=64 time=0.601 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=8 ttl=64 time=0.434 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=9 ttl=64 time=0.473 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=10 ttl=64 time=0.523 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=11 ttl=64 time=0.509 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=12 ttl=64 time=0.593 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=13 ttl=64 time=0.606 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=14 ttl=64 time=0.719 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=15 ttl=64 time=0.496 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=16 ttl=64 time=0.456 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=17 ttl=64 time=0.404 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=18 ttl=64 time=0.579 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=19 ttl=64 time=0.596 ms

64 bytes from linux-01.socs.uoguelph.ca (131.104.48.82): icmp\_seq=20 ttl=64 time=0.519 ms

--- linux-01.socs.uoguelph.ca ping statistics ---

**Summary of Stats:**

20 packets transmitted, 20 received, 0% packet loss, time 19029ms

Round Trip Time:

Min = 0.404 ms

Avg = 0.544 ms

Max = 0.908 ms

Stddev = 0.114 ms

**Running TCP File Transfer 20 for times:**

Trial Time (ms)

File sent successfully.

1 12.7919

File sent successfully.

2 12.1422

File sent successfully.

3 10.4823

File sent successfully.

4 12.6643

File sent successfully.

5 8.97646

File sent successfully.

6 12.8019

File sent successfully.

7 11.8573

File sent successfully.

8 10.2952

File sent successfully.

9 13.72

File sent successfully.

10 1033.65

File sent successfully.

11 8.49771

File sent successfully.

12 11.8139

File sent successfully.

13 9.35888

File sent successfully.

14 13.0241

File sent successfully.

15 12.6343

File sent successfully.

16 7.44581

File sent successfully.

17 9.42111

File sent successfully.

18 1043.42

File sent successfully.

19 120.456

File sent successfully.

20 14.7719

**Summary of Stats:**

Average Time: 119.511 ms

Minimum Time: 7.44581 ms

Maximum Time: 1043.42 ms

File size: 169855 bytes

Transfer rate = file size/ transfer time

Average Transfer Rate: 1421 KB/s

Minimum Transfer Rate: 22818 KB/s

Maximum Transfer Rate: 163 KB/s

**Client and Server on different environments:**

Running 20 pings:

64 bytes from 131.104.48.71: icmp\_seq=1 ttl=64 time=1.28 ms

64 bytes from 131.104.48.71: icmp\_seq=2 ttl=64 time=0.673 ms

64 bytes from 131.104.48.71: icmp\_seq=3 ttl=64 time=0.630 ms

64 bytes from 131.104.48.71: icmp\_seq=4 ttl=64 time=0.685 ms

64 bytes from 131.104.48.71: icmp\_seq=5 ttl=64 time=0.649 ms

64 bytes from 131.104.48.71: icmp\_seq=6 ttl=64 time=0.679 ms

64 bytes from 131.104.48.71: icmp\_seq=7 ttl=64 time=0.539 ms

64 bytes from 131.104.48.71: icmp\_seq=8 ttl=64 time=0.625 ms

64 bytes from 131.104.48.71: icmp\_seq=9 ttl=64 time=0.605 ms

64 bytes from 131.104.48.71: icmp\_seq=10 ttl=64 time=0.720 ms

64 bytes from 131.104.48.71: icmp\_seq=11 ttl=64 time=0.746 ms

64 bytes from 131.104.48.71: icmp\_seq=12 ttl=64 time=0.722 ms

64 bytes from 131.104.48.71: icmp\_seq=13 ttl=64 time=0.689 ms

64 bytes from 131.104.48.71: icmp\_seq=14 ttl=64 time=0.704 ms

64 bytes from 131.104.48.71: icmp\_seq=15 ttl=64 time=0.736 ms

64 bytes from 131.104.48.71: icmp\_seq=16 ttl=64 time=0.679 ms

64 bytes from 131.104.48.71: icmp\_seq=17 ttl=64 time=0.839 ms

64 bytes from 131.104.48.71: icmp\_seq=18 ttl=64 time=0.835 ms

64 bytes from 131.104.48.71: icmp\_seq=19 ttl=64 time=0.693 ms

64 bytes from 131.104.48.71: icmp\_seq=20 ttl=64 time=0.662 ms

**Summary of Stats**:

20 packets transmitted, 20 received, 0% packet loss, time 19351ms

Round Tript Time:

Min = 0.539 ms

Avg: 0.719 ms

Max: 1.280 ms

Stddev: 0.145 ms

**Running TCP File Transfer 20 for times:**

Trial Time (ms)

File sent successfully.

1 37.9972

File sent successfully.

2 9.37009

File sent successfully.

3 11.9452

File sent successfully.

4 14.9398

File sent successfully.

5 9.40681

File sent successfully.

6 10.4926

File sent successfully.

7 11.1265

File sent successfully.

8 13.1991

File sent successfully.

9 9.77898

File sent successfully.

10 11.2796

File sent successfully.

11 13.782

File sent successfully.

12 10.2816

File sent successfully.

13 11.5647

File sent successfully.

14 12.9702

File sent successfully.

15 19.295

File sent successfully.

16 13.479

File sent successfully.

17 13.7992

File sent successfully.

18 12.7053

File sent successfully.

19 8.89063

File sent successfully.

20 1023.71

**Summary of Stats**

Average Time: 64.0005 ms

Minimum Time: 8.89063 ms

Maximum Time: 1023.71 ms

File size = 169855 bytes

Transfer rate = file size/ transfer time

Average Transfer Rate: 2654 KB/s

Minimum Time Transfer Rate: 19112 KB/s

Maximum Time Transfer Rate: 166 KB/s