14740 Homework 2

1. Connectivity test between all the hosts by sending 10 ping messages between each other.

Result of host h1 (10.0.0.1) ping host h2 (ip: 10.0.0.2)

PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.

64 bytes from 10.0.0.2: icmp_seq=1 ttl=64 time=1007 ms

64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=2.36 ms

64 bytes from 10.0.0.2: icmp_seq=3 ttl=64 time=2.27 ms

64 bytes from 10.0.0.2: icmp_seq=4 ttl=64 time=2.34 ms

64 bytes from 10.0.0.2: icmp_seq=5 ttl=64 time=2.48 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=2.37 ms

64 bytes from 10.0.0.2: icmp_seq=7 ttl=64 time=2.21 ms

64 bytes from 10.0.0.2: icmp_seq=9 ttl=64 time=2.43 ms

64 bytes from 10.0.0.2: icmp_seq=10 ttl=64 time=2.46 ms

--- 10.0.0.2 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9024ms rtt min/avg/max/mdev = 2.217/114.096/1007.909/316.010 ms, pipe 2

Result of host h1 (10.0.0.1) ping host h3 (ip: 10.0.0.3)

PING 10.0.0.3 (10.0.0.3) 56(84) bytes of data.

64 bytes from 10.0.0.3: icmp_seq=1 ttl=64 time=12.5 ms

64 bytes from 10.0.0.3: icmp_seq=2 ttl=64 time=4.68 ms

64 bytes from 10.0.0.3: icmp_seq=3 ttl=64 time=4.68 ms

64 bytes from 10.0.0.3: icmp_seq=4 ttl=64 time=4.33 ms

64 bytes from 10.0.0.3: icmp_seq=5 ttl=64 time=4.29 ms
64 bytes from 10.0.0.3: icmp_seq=6 ttl=64 time=4.09 ms
64 bytes from 10.0.0.3: icmp_seq=7 ttl=64 time=5.18 ms
64 bytes from 10.0.0.3: icmp_seq=8 ttl=64 time=4.56 ms
64 bytes from 10.0.0.3: icmp_seq=9 ttl=64 time=4.14 ms
64 bytes from 10.0.0.3: icmp_seq=10 ttl=64 time=4.40 ms

--- 10.0.0.3 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9013ms rtt min/avg/max/mdev = 4.097/5.292/12.537/2.433 ms

Result of host h1 (10.0.0.1) ping host h4 (ip: 10.0.0.4)

PING 10.0.0.4 (10.0.0.4) 56(84) bytes of data.

64 bytes from 10.0.0.4: icmp_seq=1 ttl=64 time=30.3 ms

64 bytes from 10.0.0.4: icmp_seq=2 ttl=64 time=11.1 ms

64 bytes from 10.0.0.4: icmp_seq=3 ttl=64 time=10.6 ms

64 bytes from 10.0.0.4: icmp_seq=4 ttl=64 time=10.3 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=11.1 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=11.2 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=11.2 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=11.4 ms

64 bytes from 10.0.0.4: icmp_seq=9 ttl=64 time=10.4 ms

64 bytes from 10.0.0.4: icmp_seq=9 ttl=64 time=10.4 ms

^{--- 10.0.0.4} ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9018ms rtt min/avg/max/mdev = 10.370/12.956/30.342/6.155 ms

Result of host h1 (10.0.0.1) ping host h5 (ip: 10.0.0.5)

PING 10.0.0.5 (10.0.0.5) 56(84) bytes of data.

64 bytes from 10.0.0.5: icmp_seq=1 ttl=64 time=28.1 ms

64 bytes from 10.0.0.5: icmp_seq=2 ttl=64 time=11.6 ms

64 bytes from 10.0.0.5: icmp_seq=3 ttl=64 time=11.6 ms

64 bytes from 10.0.0.5: icmp_seq=4 ttl=64 time=10.8 ms

64 bytes from 10.0.0.5: icmp_seq=5 ttl=64 time=10.6 ms

64 bytes from 10.0.0.5: icmp_seq=6 ttl=64 time=10.8 ms

64 bytes from 10.0.0.5: icmp_seq=6 ttl=64 time=11.0 ms

64 bytes from 10.0.0.5: icmp_seq=8 ttl=64 time=11.1 ms

64 bytes from 10.0.0.5: icmp_seq=9 ttl=64 time=11.1 ms

--- 10.0.0.5 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9011ms rtt min/avg/max/mdev = 10.528/12.963/28.194/5.400 ms

Result of host h1 (10.0.0.1) ping host h6 (ip: 10.0.0.6)

PING 10.0.0.6 (10.0.0.6) 56(84) bytes of data.

64 bytes from 10.0.0.6: icmp_seq=1 ttl=64 time=34.3 ms

64 bytes from 10.0.0.6: icmp_seq=2 ttl=64 time=13.0 ms

64 bytes from 10.0.0.6: icmp_seq=3 ttl=64 time=13.1 ms
64 bytes from 10.0.0.6: icmp_seq=5 ttl=64 time=13.7 ms
64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=13.3 ms
64 bytes from 10.0.0.6: icmp_seq=7 ttl=64 time=14.0 ms
64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=13.5 ms
64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=13.3 ms
64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=13.4 ms

--- 10.0.0.6 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9022ms rtt min/avg/max/mdev = 13.076/15.784/34.364/6.576 ms

Result of host h1 (10.0.0.1) ping host h7 (ip: 10.0.0.7)

PING 10.0.0.7 (10.0.0.7) 56(84) bytes of data.

64 bytes from 10.0.0.7: icmp_seq=1 ttl=64 time=80.5 ms

64 bytes from 10.0.0.7: icmp_seq=2 ttl=64 time=32.5 ms

64 bytes from 10.0.0.7: icmp_seq=3 ttl=64 time=33.4 ms

64 bytes from 10.0.0.7: icmp_seq=4 ttl=64 time=33.5 ms

64 bytes from 10.0.0.7: icmp_seq=5 ttl=64 time=32.5 ms

64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=33.0 ms

64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=35.0 ms

64 bytes from 10.0.0.7: icmp_seq=7 ttl=64 time=35.7 ms

64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=32.7 ms

64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=32.7 ms

64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=33.3 ms

--- 10.0.0.7 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9014ms rtt min/avg/max/mdev = 32.516/37.948/80.558/14.221 ms

Result of host h1 (10.0.0.1) ping host h8 (ip: 10.0.0.8)

PING 10.0.0.8 (10.0.0.8) 56(84) bytes of data.

64 bytes from 10.0.0.8: icmp_seq=1 ttl=64 time=78.4 ms

64 bytes from 10.0.0.8: icmp_seq=2 ttl=64 time=34.5 ms

64 bytes from 10.0.0.8: icmp_seq=3 ttl=64 time=33.7 ms

64 bytes from 10.0.0.8: icmp_seq=4 ttl=64 time=34.8 ms

64 bytes from 10.0.0.8: icmp_seq=5 ttl=64 time=32.8 ms

64 bytes from 10.0.0.8: icmp_seq=6 ttl=64 time=32.5 ms

64 bytes from 10.0.0.8: icmp_seq=6 ttl=64 time=34.2 ms

64 bytes from 10.0.0.8: icmp_seq=7 ttl=64 time=34.2 ms

64 bytes from 10.0.0.8: icmp_seq=8 ttl=64 time=33.4 ms

64 bytes from 10.0.0.8: icmp_seq=9 ttl=64 time=35.8 ms

64 bytes from 10.0.0.8: icmp_seq=9 ttl=64 time=33.6 ms

--- 10.0.0.8 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9018ms rtt min/avg/max/mdev = 32.570/38.428/78.497/13.388 ms

Result of host h2 (10.0.0.2) ping host h1 (ip: 10.0.0.1)

PING 10.0.0.1 (10.0.0.1) 56(84) bytes of data.

64 bytes from 10.0.0.1: icmp_seq=1 ttl=64 time=5.11 ms
64 bytes from 10.0.0.1: icmp_seq=2 ttl=64 time=2.62 ms
64 bytes from 10.0.0.1: icmp_seq=3 ttl=64 time=3.48 ms
64 bytes from 10.0.0.1: icmp_seq=4 ttl=64 time=2.28 ms
64 bytes from 10.0.0.1: icmp_seq=5 ttl=64 time=3.16 ms
64 bytes from 10.0.0.1: icmp_seq=6 ttl=64 time=2.79 ms
64 bytes from 10.0.0.1: icmp_seq=7 ttl=64 time=2.59 ms
64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=2.19 ms
64 bytes from 10.0.0.1: icmp_seq=9 ttl=64 time=2.15 ms
64 bytes from 10.0.0.1: icmp_seq=9 ttl=64 time=2.15 ms

--- 10.0.0.1 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9012ms rtt min/avg/max/mdev = 2.155/2.910/5.113/0.837 ms

Result of host h2 (10.0.0.2) ping host h3 (ip: 10.0.0.3)

PING 10.0.0.3 (10.0.0.3) 56(84) bytes of data.

64 bytes from 10.0.0.3: icmp_seq=1 ttl=64 time=18.3 ms

64 bytes from 10.0.0.3: icmp_seq=3 ttl=64 time=6.95 ms

64 bytes from 10.0.0.3: icmp_seq=4 ttl=64 time=6.58 ms

64 bytes from 10.0.0.3: icmp_seq=5 ttl=64 time=8.02 ms

64 bytes from 10.0.0.3: icmp_seq=5 ttl=64 time=6.37 ms

64 bytes from 10.0.0.3: icmp_seq=6 ttl=64 time=6.37 ms

64 bytes from 10.0.0.3: icmp_seq=8 ttl=64 time=6.70 ms
64 bytes from 10.0.0.3: icmp_seq=9 ttl=64 time=6.59 ms
64 bytes from 10.0.0.3: icmp_seq=10 ttl=64 time=6.83 ms

--- 10.0.0.3 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9020ms rtt min/avg/max/mdev = 6.375/8.243/18.329/3.605 ms

Result of host h2 (10.0.0.2) ping host h4 (ip: 10.0.0.4)

PING 10.0.0.4 (10.0.0.4) 56(84) bytes of data.

64 bytes from 10.0.0.4: icmp_seq=1 ttl=64 time=22.7 ms

64 bytes from 10.0.0.4: icmp_seq=2 ttl=64 time=8.73 ms

64 bytes from 10.0.0.4: icmp_seq=3 ttl=64 time=8.99 ms

64 bytes from 10.0.0.4: icmp_seq=4 ttl=64 time=9.55 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=9.37 ms

64 bytes from 10.0.0.4: icmp_seq=6 ttl=64 time=8.12 ms

64 bytes from 10.0.0.4: icmp_seq=7 ttl=64 time=8.12 ms

64 bytes from 10.0.0.4: icmp_seq=7 ttl=64 time=8.51 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=8.51 ms

64 bytes from 10.0.0.4: icmp_seq=9 ttl=64 time=9.00 ms

64 bytes from 10.0.0.4: icmp_seq=9 ttl=64 time=8.85 ms

--- 10.0.0.4 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9013ms rtt min/avg/max/mdev = 8.120/10.309/22.718/4.156 ms

PING 10.0.0.5 (10.0.0.5) 56(84) bytes of data.

64 bytes from 10.0.0.5: icmp_seq=1 ttl=64 time=21.7 ms

64 bytes from 10.0.0.5: icmp_seq=2 ttl=64 time=8.71 ms

64 bytes from 10.0.0.5: icmp_seq=3 ttl=64 time=8.74 ms

64 bytes from 10.0.0.5: icmp_seq=4 ttl=64 time=8.18 ms

64 bytes from 10.0.0.5: icmp_seq=5 ttl=64 time=9.30 ms

64 bytes from 10.0.0.5: icmp_seq=6 ttl=64 time=9.49 ms

64 bytes from 10.0.0.5: icmp_seq=7 ttl=64 time=9.19 ms

64 bytes from 10.0.0.5: icmp_seq=8 ttl=64 time=8.13 ms

64 bytes from 10.0.0.5: icmp_seq=9 ttl=64 time=8.66 ms

64 bytes from 10.0.0.5: icmp_seq=10 ttl=64 time=8.79 ms

Result of host h2 (10.0.0.2) ping host h5 (ip: 10.0.0.5)

--- 10.0.0.5 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9012ms rtt min/avg/max/mdev = 8.134/10.094/21.708/3.893 ms

Result of host h2 (10.0.0.2) ping host h6 (ip: 10.0.0.6)

PING 10.0.0.6 (10.0.0.6) 56(84) bytes of data.

64 bytes from 10.0.0.6: icmp_seq=1 ttl=64 time=38.1 ms

64 bytes from 10.0.0.6: icmp_seq=2 ttl=64 time=16.6 ms

64 bytes from 10.0.0.6: icmp_seq=3 ttl=64 time=16.1 ms

64 bytes from 10.0.0.6: icmp_seq=4 ttl=64 time=15.4 ms
64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=16.6 ms
64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=15.4 ms
64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=14.7 ms
64 bytes from 10.0.0.6: icmp_seq=10 ttl=64 time=14.6 ms

--- 10.0.0.6 ping statistics ---

Result of host h2 (10.0.0.2) ping host h7 (ip: 10.0.0.7)

PING 10.0.0.7 (10.0.0.7) 56(84) bytes of data.

64 bytes from 10.0.0.7: icmp_seq=1 ttl=64 time=83.0 ms

64 bytes from 10.0.0.7: icmp_seq=3 ttl=64 time=35.2 ms

64 bytes from 10.0.0.7: icmp_seq=5 ttl=64 time=35.9 ms

64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=37.1 ms

64 bytes from 10.0.0.7: icmp_seq=7 ttl=64 time=36.1 ms

64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=37.2 ms

64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=35.7 ms

64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=35.7 ms

--- 10.0.0.7 ping statistics ---

10 packets transmitted, 8 received, 20% packet loss, time 9026ms rtt min/avg/max/mdev = 35.239/41.968/83.084/15.557 ms

Result of host h2 (10.0.0.2) ping host h8 (ip: 10.0.0.8)

PING 10.0.0.8 (10.0.0.8) 56(84) bytes of data.

64 bytes from 10.0.0.8: icmp_seq=1 ttl=64 time=85.6 ms

64 bytes from 10.0.0.8: icmp_seq=2 ttl=64 time=36.9 ms

64 bytes from 10.0.0.8: icmp_seq=4 ttl=64 time=35.6 ms

64 bytes from 10.0.0.8: icmp_seq=6 ttl=64 time=37.0 ms

64 bytes from 10.0.0.8: icmp_seq=7 ttl=64 time=37.1 ms

64 bytes from 10.0.0.8: icmp_seq=8 ttl=64 time=36.1 ms

64 bytes from 10.0.0.8: icmp_seq=9 ttl=64 time=36.3 ms

64 bytes from 10.0.0.8: icmp_seq=10 ttl=64 time=37.5 ms

--- 10.0.0.8 ping statistics ---

10 packets transmitted, 8 received, 20% packet loss, time 9018ms rtt min/avg/max/mdev = 35.637/42.787/85.610/16.196 ms

Result of host h3 (10.0.0.3) ping host h1 (ip: 10.0.0.1)

PING 10.0.0.1 (10.0.0.1) 56(84) bytes of data.

64 bytes from 10.0.0.1: icmp_seq=1 ttl=64 time=7.37 ms

64 bytes from 10.0.0.1: icmp_seq=2 ttl=64 time=4.44 ms

64 bytes from 10.0.0.1: icmp_seq=3 ttl=64 time=4.61 ms

64 bytes from 10.0.0.1: icmp_seq=4 ttl=64 time=5.51 ms

64 bytes from 10.0.0.1: icmp_seq=5 ttl=64 time=4.18 ms

64 bytes from 10.0.0.1: icmp_seq=6 ttl=64 time=4.53 ms
64 bytes from 10.0.0.1: icmp_seq=7 ttl=64 time=5.23 ms
64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=4.39 ms
64 bytes from 10.0.0.1: icmp_seq=9 ttl=64 time=4.58 ms
64 bytes from 10.0.0.1: icmp_seq=10 ttl=64 time=4.20 ms

--- 10.0.0.1 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9012ms rtt min/avg/max/mdev = 4.188/4.908/7.372/0.919 ms

Result of host h3 (10.0.0.3) ping host h2 (ip: 10.0.0.2)

PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.

64 bytes from 10.0.0.2: icmp_seq=1 ttl=64 time=10.3 ms

64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=7.35 ms

64 bytes from 10.0.0.2: icmp_seq=3 ttl=64 time=6.20 ms

64 bytes from 10.0.0.2: icmp_seq=4 ttl=64 time=7.27 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=6.67 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=6.76 ms

64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=6.76 ms

64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=6.85 ms

64 bytes from 10.0.0.2: icmp_seq=9 ttl=64 time=6.18 ms

64 bytes from 10.0.0.2: icmp_seq=9 ttl=64 time=6.18 ms

--- 10.0.0.2 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9018ms

Result of host h3 (10.0.0.3) ping host h4 (ip: 10.0.0.4)

PING 10.0.0.4 (10.0.0.4) 56(84) bytes of data.

64 bytes from 10.0.0.4: icmp_seq=1 ttl=64 time=42.3 ms

64 bytes from 10.0.0.4: icmp_seq=2 ttl=64 time=14.6 ms

64 bytes from 10.0.0.4: icmp_seq=3 ttl=64 time=14.7 ms

64 bytes from 10.0.0.4: icmp_seq=4 ttl=64 time=16.5 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=16.0 ms

64 bytes from 10.0.0.4: icmp_seq=6 ttl=64 time=15.9 ms

64 bytes from 10.0.0.4: icmp_seq=6 ttl=64 time=16.3 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=15.8 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=15.8 ms

--- 10.0.0.4 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9014ms rtt min/avg/max/mdev = 14.605/18.795/42.379/8.367 ms

Result of host h3 (10.0.0.3) ping host h5 (ip: 10.0.0.5)

PING 10.0.0.5 (10.0.0.5) 56(84) bytes of data.

64 bytes from 10.0.0.5: icmp_seq=1 ttl=64 time=41.8 ms

64 bytes from 10.0.0.5: icmp_seq=2 ttl=64 time=15.0 ms

64 bytes from 10.0.0.5: icmp_seq=3 ttl=64 time=14.9 ms

64 bytes from 10.0.0.5: icmp_seq=4 ttl=64 time=14.8 ms
64 bytes from 10.0.0.5: icmp_seq=5 ttl=64 time=15.3 ms
64 bytes from 10.0.0.5: icmp_seq=6 ttl=64 time=15.5 ms
64 bytes from 10.0.0.5: icmp_seq=7 ttl=64 time=15.7 ms
64 bytes from 10.0.0.5: icmp_seq=9 ttl=64 time=14.5 ms
64 bytes from 10.0.0.5: icmp_seq=10 ttl=64 time=14.9 ms

--- 10.0.0.5 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9019ms rtt min/avg/max/mdev = 14.524/18.088/41.843/8.407 ms

Result of host h3 (10.0.0.3) ping host h6 (ip: 10.0.0.6)

PING 10.0.0.6 (10.0.0.6) 56(84) bytes of data.

64 bytes from 10.0.0.6: icmp_seq=1 ttl=64 time=21.6 ms

64 bytes from 10.0.0.6: icmp_seq=2 ttl=64 time=8.81 ms

64 bytes from 10.0.0.6: icmp_seq=3 ttl=64 time=8.84 ms

64 bytes from 10.0.0.6: icmp_seq=4 ttl=64 time=8.15 ms

64 bytes from 10.0.0.6: icmp_seq=5 ttl=64 time=8.13 ms

64 bytes from 10.0.0.6: icmp_seq=5 ttl=64 time=8.62 ms

64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=9.09 ms

64 bytes from 10.0.0.6: icmp_seq=7 ttl=64 time=9.09 ms

64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=8.92 ms

64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=9.28 ms

64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=9.28 ms

--- 10.0.0.6 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9010ms rtt min/avg/max/mdev = 8.138/9.969/21.651/3.913 ms

Result of host h3 (10.0.0.3) ping host h7 (ip: 10.0.0.7)

PING 10.0.0.7 (10.0.0.7) 56(84) bytes of data.

64 bytes from 10.0.0.7: icmp_seq=1 ttl=64 time=64.1 ms

64 bytes from 10.0.0.7: icmp_seq=2 ttl=64 time=30.3 ms

64 bytes from 10.0.0.7: icmp_seq=3 ttl=64 time=30.3 ms

64 bytes from 10.0.0.7: icmp_seq=4 ttl=64 time=30.6 ms

64 bytes from 10.0.0.7: icmp_seq=5 ttl=64 time=28.7 ms

64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=28.6 ms

64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=29.6 ms

64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=29.0 ms

64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=29.5 ms

64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=29.5 ms

64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=29.5 ms

--- 10.0.0.7 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9013ms rtt min/avg/max/mdev = 28.525/32.976/64.133/10.410 ms

Result of host h3 (10.0.0.3) ping host h8 (ip: 10.0.0.8)

PING 10.0.0.8 (10.0.0.8) 56(84) bytes of data.

64 bytes from 10.0.0.8: icmp_seq=1 ttl=64 time=1067 ms
64 bytes from 10.0.0.8: icmp_seq=2 ttl=64 time=68.6 ms
64 bytes from 10.0.0.8: icmp_seq=4 ttl=64 time=29.2 ms
64 bytes from 10.0.0.8: icmp_seq=5 ttl=64 time=28.2 ms
64 bytes from 10.0.0.8: icmp_seq=6 ttl=64 time=28.6 ms
64 bytes from 10.0.0.8: icmp_seq=7 ttl=64 time=29.5 ms
64 bytes from 10.0.0.8: icmp_seq=9 ttl=64 time=29.5 ms
64 bytes from 10.0.0.8: icmp_seq=9 ttl=64 time=29.5 ms

--- 10.0.0.8 ping statistics ---

10 packets transmitted, 8 received, 20% packet loss, time 9027ms
rtt min/avg/max/mdev = 28.209/163.741/1067.023/341.654 ms, pipe 2

Result of host h4 (10.0.0.4) ping host h1 (ip: 10.0.0.1)

PING 10.0.0.1 (10.0.0.1) 56(84) bytes of data.

64 bytes from 10.0.0.1: icmp_seq=1 ttl=64 time=13.1 ms

64 bytes from 10.0.0.1: icmp_seq=2 ttl=64 time=11.2 ms

64 bytes from 10.0.0.1: icmp_seq=3 ttl=64 time=10.8 ms

64 bytes from 10.0.0.1: icmp_seq=4 ttl=64 time=10.4 ms

64 bytes from 10.0.0.1: icmp_seq=5 ttl=64 time=10.5 ms

64 bytes from 10.0.0.1: icmp_seq=6 ttl=64 time=10.7 ms

64 bytes from 10.0.0.1: icmp_seq=6 ttl=64 time=10.8 ms

64 bytes from 10.0.0.1: icmp_seq=7 ttl=64 time=10.8 ms

64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=10.6 ms

64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=10.6 ms

64 bytes from 10.0.0.1: icmp_seq=10 ttl=64 time=10.2 ms

--- 10.0.0.1 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9014ms rtt min/avg/max/mdev = 10.203/10.919/13.169/0.808 ms

Result of host h4 (10.0.0.4) ping host h2 (ip: 10.0.0.2)

PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.

64 bytes from 10.0.0.2: icmp_seq=1 ttl=64 time=11.1 ms

64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=8.35 ms

64 bytes from 10.0.0.2: icmp_seq=3 ttl=64 time=9.07 ms

64 bytes from 10.0.0.2: icmp_seq=4 ttl=64 time=8.54 ms

64 bytes from 10.0.0.2: icmp_seq=5 ttl=64 time=8.95 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=8.29 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=8.99 ms

64 bytes from 10.0.0.2: icmp_seq=7 ttl=64 time=8.98 ms

64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=8.98 ms

64 bytes from 10.0.0.2: icmp_seq=9 ttl=64 time=8.61 ms

64 bytes from 10.0.0.2: icmp_seq=9 ttl=64 time=8.61 ms

--- 10.0.0.2 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9012ms rtt min/avg/max/mdev = 8.290/9.052/11.139/0.828 ms

Result of host h4 (10.0.0.4) ping host h3 (ip: 10.0.0.3)

PING 10.0.0.3 (10.0.0.3) 56(84) bytes of data.

64 bytes from 10.0.0.3: icmp_seq=1 ttl=64 time=21.4 ms

64 bytes from 10.0.0.3: icmp_seq=2 ttl=64 time=15.6 ms

64 bytes from 10.0.0.3: icmp_seq=3 ttl=64 time=17.4 ms

64 bytes from 10.0.0.3: icmp_seq=5 ttl=64 time=14.9 ms

64 bytes from 10.0.0.3: icmp_seq=6 ttl=64 time=14.8 ms

64 bytes from 10.0.0.3: icmp_seq=7 ttl=64 time=15.9 ms

64 bytes from 10.0.0.3: icmp_seq=8 ttl=64 time=16.3 ms

64 bytes from 10.0.0.3: icmp_seq=9 ttl=64 time=14.2 ms

--- 10.0.0.3 ping statistics ---

10 packets transmitted, 8 received, 20% packet loss, time 9011ms rtt min/avg/max/mdev = 14.256/16.368/21.445/2.127 ms

Result of host h4 (10.0.0.4) ping host h5 (ip: 10.0.0.5)

PING 10.0.0.5 (10.0.0.5) 56(84) bytes of data.

64 bytes from 10.0.0.5: icmp_seq=1 ttl=64 time=2.06 ms

64 bytes from 10.0.0.5: icmp_seq=2 ttl=64 time=0.439 ms

64 bytes from 10.0.0.5: icmp_seq=3 ttl=64 time=0.415 ms

64 bytes from 10.0.0.5: icmp_seq=4 ttl=64 time=0.205 ms

64 bytes from 10.0.0.5: icmp_seq=5 ttl=64 time=0.051 ms

64 bytes from 10.0.0.5: icmp_seq=6 ttl=64 time=0.117 ms

64 bytes from 10.0.0.5: icmp_seq=7 ttl=64 time=0.481 ms

64 bytes from 10.0.0.5: icmp_seq=8 ttl=64 time=0.123 ms
64 bytes from 10.0.0.5: icmp_seq=9 ttl=64 time=0.572 ms
64 bytes from 10.0.0.5: icmp_seq=10 ttl=64 time=0.055 ms

--- 10.0.0.5 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 8997ms rtt min/avg/max/mdev = 0.051/0.451/2.060/0.566 ms

Result of host h4 (10.0.0.4) ping host h6 (ip: 10.0.0.6)

PING 10.0.0.6 (10.0.0.6) 56(84) bytes of data.

64 bytes from 10.0.0.6: icmp_seq=1 ttl=64 time=1060 ms

64 bytes from 10.0.0.6: icmp_seq=2 ttl=64 time=51.6 ms

64 bytes from 10.0.0.6: icmp_seq=3 ttl=64 time=24.8 ms

64 bytes from 10.0.0.6: icmp_seq=4 ttl=64 time=24.8 ms

64 bytes from 10.0.0.6: icmp_seq=5 ttl=64 time=23.8 ms

64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=23.5 ms

64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=23.3 ms

64 bytes from 10.0.0.6: icmp_seq=7 ttl=64 time=23.3 ms

64 bytes from 10.0.0.6: icmp_seq=7 ttl=64 time=24.2 ms

64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=24.2 ms

64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=24.1 ms

--- 10.0.0.6 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9020ms rtt min/avg/max/mdev = 23.310/130.531/1060.147/309.980 ms, pipe 2 PING 10.0.0.7 (10.0.0.7) 56(84) bytes of data.

64 bytes from 10.0.0.7: icmp_seq=1 ttl=64 time=109 ms

64 bytes from 10.0.0.7: icmp_seq=3 ttl=64 time=46.6 ms

64 bytes from 10.0.0.7: icmp_seq=4 ttl=64 time=45.8 ms

64 bytes from 10.0.0.7: icmp_seq=5 ttl=64 time=47.2 ms

64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=44.4 ms

Result of host h4 (10.0.0.4) ping host h7 (ip: 10.0.0.7)

64 bytes from 10.0.0.7: icmp_seq=7 ttl=64 time=44.1 ms

64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=44.1 ms

64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=45.3 ms

64 bytes from 10.0.0.7: icmp_seq=10 ttl=64 time=44.6 ms

--- 10.0.0.7 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9018ms rtt min/avg/max/mdev = 44.115/52.402/109.147/20.089 ms

Result of host h4 (10.0.0.4) ping host h8 (ip: 10.0.0.8)

PING 10.0.0.8 (10.0.0.8) 56(84) bytes of data.

64 bytes from 10.0.0.8: icmp_seq=3 ttl=64 time=46.0 ms

64 bytes from 10.0.0.8: icmp_seq=1 ttl=64 time=1104 ms

64 bytes from 10.0.0.8: icmp_seq=5 ttl=64 time=44.5 ms

64 bytes from 10.0.0.8: icmp_seq=7 ttl=64 time=45.3 ms

64 bytes from 10.0.0.8: icmp_seq=8 ttl=64 time=44.9 ms
64 bytes from 10.0.0.8: icmp_seq=9 ttl=64 time=43.9 ms
64 bytes from 10.0.0.8: icmp_seq=10 ttl=64 time=43.2 ms

--- 10.0.0.8 ping statistics ---

10 packets transmitted, 7 received, 30% packet loss, time 9030ms rtt min/avg/max/mdev = 43.204/196.032/1104.057/370.700 ms, pipe 2

Result of host h5 (10.0.0.5) ping host h1 (ip: 10.0.0.1)

PING 10.0.0.1 (10.0.0.1) 56(84) bytes of data.

64 bytes from 10.0.0.1: icmp_seq=1 ttl=64 time=14.0 ms

64 bytes from 10.0.0.1: icmp_seq=3 ttl=64 time=11.9 ms

64 bytes from 10.0.0.1: icmp_seq=4 ttl=64 time=12.2 ms

64 bytes from 10.0.0.1: icmp_seq=5 ttl=64 time=11.1 ms

64 bytes from 10.0.0.1: icmp_seq=6 ttl=64 time=10.9 ms

64 bytes from 10.0.0.1: icmp_seq=7 ttl=64 time=11.8 ms

64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=11.4 ms

64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=11.4 ms

64 bytes from 10.0.0.1: icmp_seq=9 ttl=64 time=11.4 ms

--- 10.0.0.1 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9025ms rtt min/avg/max/mdev = 10.982/11.896/14.084/0.877 ms

PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.

64 bytes from 10.0.0.2: icmp_seq=1 ttl=64 time=11.0 ms

64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=9.46 ms

64 bytes from 10.0.0.2: icmp_seq=3 ttl=64 time=9.06 ms

64 bytes from 10.0.0.2: icmp_seq=4 ttl=64 time=8.83 ms

Result of host h5 (10.0.0.5) ping host h2 (ip: 10.0.0.2)

64 bytes from 10.0.0.2: icmp_seq=5 ttl=64 time=8.67 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=8.71 ms

64 bytes from 10.0.0.2: icmp_seq=7 ttl=64 time=9.20 ms

64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=9.44 ms

64 bytes from 10.0.0.2: icmp_seq=9 ttl=64 time=8.25 ms

64 bytes from 10.0.0.2: icmp_seq=10 ttl=64 time=8.26 ms

--- 10.0.0.2 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9017ms rtt min/avg/max/mdev = 8.256/9.093/11.008/0.761 ms

Result of host h5 (10.0.0.5) ping host h3 (ip: 10.0.0.3)

PING 10.0.0.3 (10.0.0.3) 56(84) bytes of data.

64 bytes from 10.0.0.3: icmp_seq=1 ttl=64 time=18.7 ms

64 bytes from 10.0.0.3: icmp_seq=3 ttl=64 time=16.1 ms

64 bytes from 10.0.0.3: icmp_seq=4 ttl=64 time=16.5 ms

64 bytes from 10.0.0.3: icmp_seq=5 ttl=64 time=15.3 ms

64 bytes from 10.0.0.3: icmp_seq=7 ttl=64 time=15.8 ms
64 bytes from 10.0.0.3: icmp_seq=8 ttl=64 time=16.3 ms
64 bytes from 10.0.0.3: icmp_seq=9 ttl=64 time=16.5 ms
64 bytes from 10.0.0.3: icmp_seq=10 ttl=64 time=16.7 ms

--- 10.0.0.3 ping statistics ---

10 packets transmitted, 8 received, 20% packet loss, time 9033ms rtt min/avg/max/mdev = 15.355/16.543/18.783/0.965 ms

Result of host h5 (10.0.0.5) ping host h4 (ip: 10.0.0.4)

PING 10.0.0.4 (10.0.0.4) 56(84) bytes of data.

64 bytes from 10.0.0.4: icmp_seq=1 ttl=64 time=1.59 ms

64 bytes from 10.0.0.4: icmp_seq=2 ttl=64 time=0.365 ms

64 bytes from 10.0.0.4: icmp_seq=3 ttl=64 time=0.429 ms

64 bytes from 10.0.0.4: icmp_seq=4 ttl=64 time=0.144 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=0.085 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=0.034 ms

64 bytes from 10.0.0.4: icmp_seq=6 ttl=64 time=0.034 ms

64 bytes from 10.0.0.4: icmp_seq=7 ttl=64 time=0.436 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=0.038 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=0.038 ms

64 bytes from 10.0.0.4: icmp_seq=9 ttl=64 time=0.322 ms

64 bytes from 10.0.0.4: icmp_seq=10 ttl=64 time=0.326 ms

--- 10.0.0.4 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9000ms

Result of host h5 (10.0.0.5) ping host h6 (ip: 10.0.0.6)

PING 10.0.0.6 (10.0.0.6) 56(84) bytes of data.

64 bytes from 10.0.0.6: icmp_seq=1 ttl=64 time=58.6 ms

64 bytes from 10.0.0.6: icmp_seq=2 ttl=64 time=23.3 ms

64 bytes from 10.0.0.6: icmp_seq=3 ttl=64 time=25.5 ms

64 bytes from 10.0.0.6: icmp_seq=4 ttl=64 time=22.3 ms

64 bytes from 10.0.0.6: icmp_seq=5 ttl=64 time=24.2 ms

64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=23.1 ms

64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=23.4 ms

64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=23.4 ms

64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=25.2 ms

64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=25.2 ms

--- 10.0.0.6 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9011ms rtt min/avg/max/mdev = 22.306/27.328/58.637/10.489 ms

64 bytes from 10.0.0.6: icmp_seq=10 ttl=64 time=24.7 ms

Result of host h5 (10.0.0.5) ping host h7 (ip: 10.0.0.7)

PING 10.0.0.7 (10.0.0.7) 56(84) bytes of data.

64 bytes from 10.0.0.7: icmp_seq=1 ttl=64 time=1103 ms

64 bytes from 10.0.0.7: icmp_seq=2 ttl=64 time=104 ms

64 bytes from 10.0.0.7: icmp_seq=3 ttl=64 time=47.2 ms
64 bytes from 10.0.0.7: icmp_seq=4 ttl=64 time=43.3 ms
64 bytes from 10.0.0.7: icmp_seq=5 ttl=64 time=48.0 ms
64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=45.2 ms
64 bytes from 10.0.0.7: icmp_seq=7 ttl=64 time=45.3 ms
64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=43.8 ms
64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=43.0 ms
64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=43.0 ms

--- 10.0.0.7 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9008ms rtt min/avg/max/mdev = 43.012/157.054/1103.547/315.996 ms, pipe 2

Result of host h5 (10.0.0.5) ping host h8 (ip: 10.0.0.8)

PING 10.0.0.8 (10.0.0.8) 56(84) bytes of data.

64 bytes from 10.0.0.8: icmp_seq=3 ttl=64 time=52.7 ms

64 bytes from 10.0.0.8: icmp_seq=4 ttl=64 time=46.0 ms

64 bytes from 10.0.0.8: icmp_seq=5 ttl=64 time=44.8 ms

64 bytes from 10.0.0.8: icmp_seq=6 ttl=64 time=42.9 ms

64 bytes from 10.0.0.8: icmp_seq=7 ttl=64 time=44.0 ms

64 bytes from 10.0.0.8: icmp_seq=8 ttl=64 time=43.9 ms

64 bytes from 10.0.0.8: icmp_seq=8 ttl=64 time=43.9 ms

10 packets transmitted, 7 received, 30% packet loss, time 9027ms rtt min/avg/max/mdev = 42.960/45.720/52.762/3.032 ms

Result of host h6 (10.0.0.6) ping host h1 (ip: 10.0.0.1)

PING 10.0.0.1 (10.0.0.1) 56(84) bytes of data.

64 bytes from 10.0.0.1: icmp_seq=1 ttl=64 time=18.7 ms

64 bytes from 10.0.0.1: icmp_seq=2 ttl=64 time=14.3 ms

64 bytes from 10.0.0.1: icmp_seq=4 ttl=64 time=12.3 ms

64 bytes from 10.0.0.1: icmp_seq=5 ttl=64 time=12.7 ms

64 bytes from 10.0.0.1: icmp_seq=6 ttl=64 time=13.4 ms

64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=13.0 ms

64 bytes from 10.0.0.1: icmp_seq=9 ttl=64 time=13.5 ms

64 bytes from 10.0.0.1: icmp_seq=9 ttl=64 time=13.5 ms

--- 10.0.0.1 ping statistics ---

10 packets transmitted, 8 received, 20% packet loss, time 9019ms rtt min/avg/max/mdev = 12.359/14.162/18.790/1.917 ms

Result of host h6 (10.0.0.6) ping host h2 (ip: 10.0.0.2)

PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.

64 bytes from 10.0.0.2: icmp_seq=1 ttl=64 time=20.5 ms

64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=16.3 ms

64 bytes from 10.0.0.2: icmp_seq=3 ttl=64 time=15.4 ms

64 bytes from 10.0.0.2: icmp_seq=4 ttl=64 time=14.8 ms
64 bytes from 10.0.0.2: icmp_seq=5 ttl=64 time=16.6 ms
64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=15.0 ms
64 bytes from 10.0.0.2: icmp_seq=7 ttl=64 time=16.5 ms
64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=16.9 ms
64 bytes from 10.0.0.2: icmp_seq=9 ttl=64 time=15.8 ms
64 bytes from 10.0.0.2: icmp_seq=9 ttl=64 time=15.8 ms

--- 10.0.0.2 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9015ms rtt min/avg/max/mdev = 14.865/16.387/20.586/1.555 ms

Result of host h6 (10.0.0.6) ping host h3 (ip: 10.0.0.3)

PING 10.0.0.3 (10.0.0.3) 56(84) bytes of data.

64 bytes from 10.0.0.3: icmp_seq=1 ttl=64 time=11.8 ms

64 bytes from 10.0.0.3: icmp_seq=3 ttl=64 time=9.51 ms

64 bytes from 10.0.0.3: icmp_seq=4 ttl=64 time=8.79 ms

64 bytes from 10.0.0.3: icmp_seq=5 ttl=64 time=9.36 ms

64 bytes from 10.0.0.3: icmp_seq=6 ttl=64 time=8.51 ms

64 bytes from 10.0.0.3: icmp_seq=7 ttl=64 time=9.19 ms

64 bytes from 10.0.0.3: icmp_seq=8 ttl=64 time=8.14 ms

64 bytes from 10.0.0.3: icmp_seq=8 ttl=64 time=8.14 ms

64 bytes from 10.0.0.3: icmp_seq=9 ttl=64 time=8.22 ms

--- 10.0.0.3 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9011ms rtt min/avg/max/mdev = 8.141/9.124/11.836/1.065 ms

Result of host h6 (10.0.0.6) ping host h4 (ip: 10.0.0.4)

PING 10.0.0.4 (10.0.0.4) 56(84) bytes of data.

64 bytes from 10.0.0.4: icmp_seq=1 ttl=64 time=33.0 ms

64 bytes from 10.0.0.4: icmp_seq=2 ttl=64 time=24.2 ms

64 bytes from 10.0.0.4: icmp_seq=3 ttl=64 time=24.1 ms

64 bytes from 10.0.0.4: icmp_seq=4 ttl=64 time=22.8 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=25.1 ms

64 bytes from 10.0.0.4: icmp_seq=6 ttl=64 time=24.0 ms

64 bytes from 10.0.0.4: icmp_seq=6 ttl=64 time=24.1 ms

64 bytes from 10.0.0.4: icmp_seq=7 ttl=64 time=24.1 ms

64 bytes from 10.0.0.4: icmp_seq=9 ttl=64 time=24.1 ms

--- 10.0.0.4 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9017ms rtt min/avg/max/mdev = 22.839/25.213/33.005/2.829 ms

Result of host h6 (10.0.0.6) ping host h5 (ip: 10.0.0.5)

PING 10.0.0.5 (10.0.0.5) 56(84) bytes of data.

64 bytes from 10.0.0.5: icmp_seq=1 ttl=64 time=28.1 ms

64 bytes from 10.0.0.5: icmp_seq=2 ttl=64 time=25.5 ms
64 bytes from 10.0.0.5: icmp_seq=3 ttl=64 time=23.4 ms
64 bytes from 10.0.0.5: icmp_seq=4 ttl=64 time=23.9 ms
64 bytes from 10.0.0.5: icmp_seq=5 ttl=64 time=25.8 ms
64 bytes from 10.0.0.5: icmp_seq=6 ttl=64 time=23.8 ms
64 bytes from 10.0.0.5: icmp_seq=7 ttl=64 time=23.2 ms
64 bytes from 10.0.0.5: icmp_seq=8 ttl=64 time=24.1 ms
64 bytes from 10.0.0.5: icmp_seq=9 ttl=64 time=24.2 ms

--- 10.0.0.5 ping statistics ---

Result of host h6 (10.0.0.6) ping host h7 (ip: 10.0.0.7)

PING 10.0.0.7 (10.0.0.7) 56(84) bytes of data.

64 bytes from 10.0.0.7: icmp_seq=1 ttl=64 time=45.4 ms

64 bytes from 10.0.0.7: icmp_seq=2 ttl=64 time=21.6 ms

64 bytes from 10.0.0.7: icmp_seq=3 ttl=64 time=21.3 ms

64 bytes from 10.0.0.7: icmp_seq=4 ttl=64 time=20.5 ms

64 bytes from 10.0.0.7: icmp_seq=5 ttl=64 time=20.5 ms

64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=21.1 ms

64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=21.5 ms

64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=20.2 ms

64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=20.2 ms

64 bytes from 10.0.0.7: icmp_seq=10 ttl=64 time=21.1 ms

--- 10.0.0.7 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9014ms rtt min/avg/max/mdev = 20.256/23.405/45.423/7.353 ms

PING 10.0.0.8 (10.0.0.8) 56(84) bytes of data.

64 bytes from 10.0.0.8: icmp_seq=1 ttl=64 time=47.4 ms

64 bytes from 10.0.0.8: icmp_seq=2 ttl=64 time=21.4 ms

64 bytes from 10.0.0.8: icmp_seq=3 ttl=64 time=21.4 ms

64 bytes from 10.0.0.8: icmp_seq=4 ttl=64 time=20.9 ms

64 bytes from 10.0.0.8: icmp_seq=5 ttl=64 time=21.3 ms

Result of host h6 (10.0.0.6) ping host h8 (ip: 10.0.0.8)

64 bytes from 10.0.0.8: icmp_seq=8 ttl=64 time=20.8 ms
64 bytes from 10.0.0.8: icmp_seq=9 ttl=64 time=21.2 ms

64 bytes from 10.0.0.8: icmp_seq=7 ttl=64 time=21.9 ms

64 bytes from 10.0.0.8: icmp_seq=10 ttl=64 time=21.1 ms

--- 10.0.0.8 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9012ms $rtt\ min/avg/max/mdev = 20.872/24.223/47.477/8.227\ ms$

Result of host h7 (10.0.0.7) ping host h1 (ip: 10.0.0.1)

PING 10.0.0.1 (10.0.0.1) 56(84) bytes of data.

64 bytes from 10.0.0.1: icmp_seq=1 ttl=64 time=40.5 ms
64 bytes from 10.0.0.1: icmp_seq=3 ttl=64 time=34.8 ms
64 bytes from 10.0.0.1: icmp_seq=4 ttl=64 time=34.4 ms
64 bytes from 10.0.0.1: icmp_seq=6 ttl=64 time=33.4 ms
64 bytes from 10.0.0.1: icmp_seq=7 ttl=64 time=34.8 ms
64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=33.8 ms
64 bytes from 10.0.0.1: icmp_seq=9 ttl=64 time=33.6 ms
64 bytes from 10.0.0.1: icmp_seq=10 ttl=64 time=33.9 ms

--- 10.0.0.1 ping statistics ---

10 packets transmitted, 8 received, 20% packet loss, time 9019ms rtt min/avg/max/mdev = 33.488/34.953/40.513/2.170 ms

Result of host h7 (10.0.0.7) ping host h2 (ip: 10.0.0.2)

PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.

64 bytes from 10.0.0.2: icmp_seq=1 ttl=64 time=44.3 ms

64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=37.6 ms

64 bytes from 10.0.0.2: icmp_seq=3 ttl=64 time=36.3 ms

64 bytes from 10.0.0.2: icmp_seq=5 ttl=64 time=37.1 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=35.8 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=36.4 ms

64 bytes from 10.0.0.2: icmp_seq=7 ttl=64 time=36.4 ms

64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=38.4 ms

64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=36.3 ms

64 bytes from 10.0.0.2: icmp_seq=10 ttl=64 time=35.4 ms

--- 10.0.0.2 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9021ms rtt min/avg/max/mdev = 35.491/37.561/44.308/2.546 ms

Result of host h7 (10.0.0.7) ping host h3 (ip: 10.0.0.3)

PING 10.0.0.3 (10.0.0.3) 56(84) bytes of data.

64 bytes from 10.0.0.3: icmp_seq=1 ttl=64 time=32.2 ms

64 bytes from 10.0.0.3: icmp_seq=2 ttl=64 time=29.1 ms

64 bytes from 10.0.0.3: icmp_seq=3 ttl=64 time=28.6 ms

64 bytes from 10.0.0.3: icmp_seq=4 ttl=64 time=29.1 ms

64 bytes from 10.0.0.3: icmp_seq=5 ttl=64 time=29.8 ms

64 bytes from 10.0.0.3: icmp_seq=6 ttl=64 time=29.8 ms

64 bytes from 10.0.0.3: icmp_seq=6 ttl=64 time=29.0 ms

64 bytes from 10.0.0.3: icmp_seq=8 ttl=64 time=29.0 ms

64 bytes from 10.0.0.3: icmp_seq=9 ttl=64 time=29.3 ms

64 bytes from 10.0.0.3: icmp_seq=9 ttl=64 time=29.3 ms

--- 10.0.0.3 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9011ms rtt min/avg/max/mdev = 28.612/29.596/32.201/1.001 ms

Result of host h7 (10.0.0.7) ping host h4 (ip: 10.0.0.4)

PING 10.0.0.4 (10.0.0.4) 56(84) bytes of data.

64 bytes from 10.0.0.4: icmp_seq=1 ttl=64 time=49.5 ms

64 bytes from 10.0.0.4: icmp_seq=2 ttl=64 time=45.3 ms

64 bytes from 10.0.0.4: icmp_seq=3 ttl=64 time=44.9 ms

64 bytes from 10.0.0.4: icmp_seq=4 ttl=64 time=46.9 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=43.4 ms

64 bytes from 10.0.0.4: icmp_seq=6 ttl=64 time=44.6 ms

64 bytes from 10.0.0.4: icmp_seq=7 ttl=64 time=45.7 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=43.0 ms

64 bytes from 10.0.0.4: icmp_seq=10 ttl=64 time=44.0 ms

--- 10.0.0.4 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9008ms rtt min/avg/max/mdev = 43.072/45.313/49.573/1.886 ms

Result of host h7 (10.0.0.7) ping host h5 (ip: 10.0.0.5)

PING 10.0.0.5 (10.0.0.5) 56(84) bytes of data.

64 bytes from 10.0.0.5: icmp_seq=1 ttl=64 time=50.4 ms

64 bytes from 10.0.0.5: icmp_seq=2 ttl=64 time=46.6 ms

64 bytes from 10.0.0.5: icmp_seq=3 ttl=64 time=46.2 ms

64 bytes from 10.0.0.5: icmp_seq=4 ttl=64 time=44.3 ms

64 bytes from 10.0.0.5: icmp_seq=5 ttl=64 time=44.6 ms

64 bytes from 10.0.0.5: icmp_seq=6 ttl=64 time=44.7 ms

64 bytes from 10.0.0.5: icmp_seq=7 ttl=64 time=44.2 ms 64 bytes from 10.0.0.5: icmp_seq=8 ttl=64 time=43.1 ms 64 bytes from 10.0.0.5: icmp_seq=9 ttl=64 time=45.2 ms

--- 10.0.0.5 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9013ms rtt min/avg/max/mdev = 43.101/45.528/50.463/2.030 ms

Result of host h7 (10.0.0.7) ping host h6 (ip: 10.0.0.6)

PING 10.0.0.6 (10.0.0.6) 56(84) bytes of data.

64 bytes from 10.0.0.6: icmp_seq=1 ttl=64 time=23.7 ms

64 bytes from 10.0.0.6: icmp_seq=2 ttl=64 time=20.9 ms

64 bytes from 10.0.0.6: icmp_seq=3 ttl=64 time=20.7 ms

64 bytes from 10.0.0.6: icmp_seq=4 ttl=64 time=21.5 ms

64 bytes from 10.0.0.6: icmp_seq=5 ttl=64 time=21.8 ms

64 bytes from 10.0.0.6: icmp_seq=5 ttl=64 time=20.9 ms

64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=21.4 ms

64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=21.4 ms

64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=21.4 ms

64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=20.4 ms

64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=20.4 ms

--- 10.0.0.6 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9015ms rtt min/avg/max/mdev = 20.423/21.264/23.775/0.923 ms

Result of host h7 (10.0.0.7) ping host h8 (ip: 10.0.0.8)

PING 10.0.0.8 (10.0.0.8) 56(84) bytes of data.

64 bytes from 10.0.0.8: icmp_seq=1 ttl=64 time=2.66 ms

64 bytes from 10.0.0.8: icmp_seq=2 ttl=64 time=0.339 ms

64 bytes from 10.0.0.8: icmp_seq=3 ttl=64 time=0.272 ms

64 bytes from 10.0.0.8: icmp_seq=4 ttl=64 time=0.058 ms

64 bytes from 10.0.0.8: icmp_seq=5 ttl=64 time=0.092 ms

64 bytes from 10.0.0.8: icmp_seq=6 ttl=64 time=0.039 ms

64 bytes from 10.0.0.8: icmp_seq=7 ttl=64 time=0.325 ms

64 bytes from 10.0.0.8: icmp_seq=8 ttl=64 time=0.053 ms

64 bytes from 10.0.0.8: icmp_seq=9 ttl=64 time=0.483 ms

64 bytes from 10.0.0.8: icmp_seq=10 ttl=64 time=0.058 ms

--- 10.0.0.8 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9001ms rtt min/avg/max/mdev = 0.039/0.438/2.663/0.756 ms

Result of host h8 (10.0.0.8) ping host h1 (ip: 10.0.0.1)

PING 10.0.0.1 (10.0.0.1) 56(84) bytes of data.

64 bytes from 10.0.0.1: icmp_seq=1 ttl=64 time=38.0 ms

64 bytes from 10.0.0.1: icmp_seq=3 ttl=64 time=34.2 ms

64 bytes from 10.0.0.1: icmp_seq=6 ttl=64 time=33.6 ms

64 bytes from 10.0.0.1: icmp_seq=7 ttl=64 time=34.9 ms
64 bytes from 10.0.0.1: icmp_seq=8 ttl=64 time=34.9 ms
64 bytes from 10.0.0.1: icmp_seq=9 ttl=64 time=34.0 ms
64 bytes from 10.0.0.1: icmp_seq=10 ttl=64 time=35.4 ms

--- 10.0.0.1 ping statistics ---

10 packets transmitted, 7 received, 30% packet loss, time 9024ms rtt min/avg/max/mdev = 33.642/35.059/38.009/1.349 ms

Result of host h8 (10.0.0.8) ping host h2 (ip: 10.0.0.2)

PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.

64 bytes from 10.0.0.2: icmp_seq=1 ttl=64 time=40.0 ms

64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=36.3 ms

64 bytes from 10.0.0.2: icmp_seq=5 ttl=64 time=36.4 ms

64 bytes from 10.0.0.2: icmp_seq=6 ttl=64 time=36.7 ms

64 bytes from 10.0.0.2: icmp_seq=7 ttl=64 time=36.7 ms

64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=35.2 ms

64 bytes from 10.0.0.2: icmp_seq=8 ttl=64 time=35.2 ms

--- 10.0.0.2 ping statistics ---

10 packets transmitted, 7 received, 30% packet loss, time 9016ms rtt min/avg/max/mdev = 35.297/36.839/40.050/1.396 ms

Result of host h8 (10.0.0.8) ping host h3 (ip: 10.0.0.3)

PING 10.0.0.3 (10.0.0.3) 56(84) bytes of data.

64 bytes from 10.0.0.3: icmp_seq=1 ttl=64 time=33.0 ms

64 bytes from 10.0.0.3: icmp_seq=2 ttl=64 time=29.5 ms

64 bytes from 10.0.0.3: icmp_seq=3 ttl=64 time=29.6 ms

64 bytes from 10.0.0.3: icmp_seq=4 ttl=64 time=30.6 ms

64 bytes from 10.0.0.3: icmp_seq=5 ttl=64 time=30.1 ms

64 bytes from 10.0.0.3: icmp_seq=6 ttl=64 time=28.8 ms

64 bytes from 10.0.0.3: icmp_seq=7 ttl=64 time=30.0 ms

64 bytes from 10.0.0.3: icmp_seq=8 ttl=64 time=29.5 ms

64 bytes from 10.0.0.3: icmp_seq=9 ttl=64 time=30.6 ms

--- 10.0.0.3 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9013ms rtt min/avg/max/mdev = 28.801/30.213/33.079/1.158 ms

Result of host h8 (10.0.0.8) ping host h4 (ip: 10.0.0.4)

PING 10.0.0.4 (10.0.0.4) 56(84) bytes of data.

64 bytes from 10.0.0.4: icmp_seq=1 ttl=64 time=57.1 ms

64 bytes from 10.0.0.4: icmp_seq=2 ttl=64 time=46.2 ms

64 bytes from 10.0.0.4: icmp_seq=3 ttl=64 time=44.6 ms

64 bytes from 10.0.0.4: icmp_seq=4 ttl=64 time=44.6 ms

64 bytes from 10.0.0.4: icmp_seq=5 ttl=64 time=44.8 ms

64 bytes from 10.0.0.4: icmp_seq=6 ttl=64 time=44.3 ms

64 bytes from 10.0.0.4: icmp_seq=8 ttl=64 time=44.8 ms
64 bytes from 10.0.0.4: icmp_seq=9 ttl=64 time=45.5 ms
64 bytes from 10.0.0.4: icmp_seq=10 ttl=64 time=43.8 ms

--- 10.0.0.4 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9022ms rtt min/avg/max/mdev = 43.841/46.232/57.149/3.919 ms

Result of host h8 (10.0.0.8) ping host h5 (ip: 10.0.0.5)

PING 10.0.0.5 (10.0.0.5) 56(84) bytes of data.

64 bytes from 10.0.0.5: icmp_seq=1 ttl=64 time=51.3 ms

64 bytes from 10.0.0.5: icmp_seq=2 ttl=64 time=45.7 ms

64 bytes from 10.0.0.5: icmp_seq=3 ttl=64 time=45.6 ms

64 bytes from 10.0.0.5: icmp_seq=4 ttl=64 time=45.6 ms

64 bytes from 10.0.0.5: icmp_seq=5 ttl=64 time=45.3 ms

64 bytes from 10.0.0.5: icmp_seq=5 ttl=64 time=45.3 ms

64 bytes from 10.0.0.5: icmp_seq=6 ttl=64 time=45.0 ms

64 bytes from 10.0.0.5: icmp_seq=8 ttl=64 time=45.0 ms

64 bytes from 10.0.0.5: icmp_seq=9 ttl=64 time=45.2 ms

64 bytes from 10.0.0.5: icmp_seq=9 ttl=64 time=45.2 ms

--- 10.0.0.5 ping statistics ---

10 packets transmitted, 9 received, 10% packet loss, time 9017ms rtt min/avg/max/mdev = 43.771/45.827/51.306/2.092 ms

PING 10.0.0.6 (10.0.0.6) 56(84) bytes of data.

64 bytes from 10.0.0.6: icmp_seq=1 ttl=64 time=24.2 ms

64 bytes from 10.0.0.6: icmp_seq=2 ttl=64 time=21.2 ms

64 bytes from 10.0.0.6: icmp_seq=3 ttl=64 time=21.0 ms

64 bytes from 10.0.0.6: icmp_seq=4 ttl=64 time=21.0 ms

Result of host h8 (10.0.0.8) ping host h6 (ip: 10.0.0.6)

64 bytes from 10.0.0.6: icmp_seq=5 ttl=64 time=20.1 ms 64 bytes from 10.0.0.6: icmp_seq=6 ttl=64 time=20.4 ms

64 bytes from 10.0.0.6: icmp_seq=7 ttl=64 time=20.6 ms

64 bytes from 10.0.0.6: icmp_seq=8 ttl=64 time=21.3 ms

64 bytes from 10.0.0.6: icmp_seq=9 ttl=64 time=20.6 ms

64 bytes from 10.0.0.6: icmp_seq=10 ttl=64 time=20.8 ms

--- 10.0.0.6 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9013ms rtt min/avg/max/mdev = 20.199/21.175/24.292/1.101 ms

Result of host h8 (10.0.0.8) ping host h7 (ip: 10.0.0.7)

PING 10.0.0.7 (10.0.0.7) 56(84) bytes of data.

64 bytes from 10.0.0.7: icmp_seq=1 ttl=64 time=2.11 ms

64 bytes from 10.0.0.7: icmp_seq=2 ttl=64 time=0.664 ms

64 bytes from 10.0.0.7: icmp_seq=3 ttl=64 time=0.474 ms

64 bytes from 10.0.0.7: icmp_seq=4 ttl=64 time=0.067 ms

64 bytes from 10.0.0.7: icmp_seq=5 ttl=64 time=0.052 ms
64 bytes from 10.0.0.7: icmp_seq=6 ttl=64 time=0.047 ms
64 bytes from 10.0.0.7: icmp_seq=7 ttl=64 time=0.217 ms
64 bytes from 10.0.0.7: icmp_seq=8 ttl=64 time=0.354 ms
64 bytes from 10.0.0.7: icmp_seq=9 ttl=64 time=0.072 ms
64 bytes from 10.0.0.7: icmp_seq=10 ttl=64 time=0.064 ms

--- 10.0.0.7 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 8999ms rtt min/avg/max/mdev = 0.047/0.412/2.110/0.600 ms

2. Measure the TCP bandwidth between every pair of hosts

- *** Iperf: testing TCP bandwidth between h2 and h1
- *** Results: ['9.18 Mbits/sec', '9.60 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h3 and h1
- *** Results: ['14.0 Mbits/sec', '14.3 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h4 and h1
- *** Results: ['6.04 Mbits/sec', '7.06 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h5 and h1
- *** Results: ['7.94 Mbits/sec', '8.80 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h6 and h1
- *** Results: ['7.80 Mbits/sec', '9.90 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h7 and h1
- *** Results: ['1.72 Mbits/sec', '1.88 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h8 and h1
- *** Results: ['1.90 Mbits/sec', '2.03 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h1 and h2
- *** Results: ['9.47 Mbits/sec', '10.4 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h3 and h2
- *** Results: ['4.97 Mbits/sec', '5.07 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h4 and h2
- *** Results: ['18.3 Mbits/sec', '18.7 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h5 and h2
- *** Results: ['18.4 Mbits/sec', '19.0 Mbits/sec']

```
*** Iperf: testing TCP bandwidth between h6 and h2
```

- *** Results: ['3.07 Mbits/sec', '3.19 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h7 and h2
- *** Results: ['1.37 Mbits/sec', '1.42 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h8 and h2
- *** Results: ['1.24 Mbits/sec', '1.40 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h1 and h3
- *** Results: ['14.2 Mbits/sec', '14.6 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h2 and h3
- *** Results: ['6.87 Mbits/sec', '7.17 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h4 and h3
- *** Results: ['1.98 Mbits/sec', '2.14 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h5 and h3
- *** Results: ['3.62 Mbits/sec', '4.08 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h6 and h3
- *** Results: ['18.7 Mbits/sec', '19.0 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h7 and h3
- *** Results: ['3.80 Mbits/sec', '5.57 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h8 and h3
- *** Results: ['3.78 Mbits/sec', '4.16 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h1 and h4
- *** Results: ['7.55 Mbits/sec', '7.67 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h2 and h4
- *** Results: ['19.0 Mbits/sec', '19.5 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h3 and h4
- *** Results: ['2.82 Mbits/sec', '3.17 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h5 and h4
- *** Results: ['52.1 Gbits/sec', '52.1 Gbits/sec']
- *** Iperf: testing TCP bandwidth between h6 and h4
- *** Results: ['2.33 Mbits/sec', '2.44 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h7 and h4
- *** Results: ['970 Kbits/sec', '1.13 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h8 and h4
- *** Results: ['952 Kbits/sec', '1.03 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h1 and h5
- *** Results: ['5.62 Mbits/sec', '5.95 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h2 and h5
- *** Results: ['18.4 Mbits/sec', '20.3 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h3 and h5
- *** Results: ['3.20 Mbits/sec', '3.29 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h4 and h5
- *** Results: ['52.0 Gbits/sec', '52.1 Gbits/sec']
- *** Iperf: testing TCP bandwidth between h6 and h5
- *** Results: ['1.63 Mbits/sec', '2.02 Mbits/sec']

```
*** Iperf: testing TCP bandwidth between h7 and h5
```

- *** Results: ['984 Kbits/sec', '1.15 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h8 and h5
- *** Results: ['821 Kbits/sec', '885 Kbits/sec']
- *** Iperf: testing TCP bandwidth between h1 and h6
- *** Results: ['7.83 Mbits/sec', '8.02 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h2 and h6
- *** Results: ['3.76 Mbits/sec', '3.98 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h3 and h6
- *** Results: ['18.1 Mbits/sec', '18.5 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h4 and h6
- *** Results: ['2.70 Mbits/sec', '3.16 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h5 and h6
- *** Results: ['1.73 Mbits/sec', '2.25 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h7 and h6
- *** Results: ['6.52 Mbits/sec', '7.90 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h8 and h6
- *** Results: ['5.63 Mbits/sec', '5.73 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h1 and h7
- *** Results: ['2.14 Mbits/sec', '2.34 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h2 and h7
- *** Results: ['614 Kbits/sec', '640 Kbits/sec']
- *** Iperf: testing TCP bandwidth between h3 and h7
- *** Results: ['4.03 Mbits/sec', '4.12 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h4 and h7
- *** Results: ['602 Kbits/sec', '635 Kbits/sec']
- *** Iperf: testing TCP bandwidth between h5 and h7
- *** Results: ['984 Kbits/sec', '1.05 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h6 and h7
- *** Results: ['7.14 Mbits/sec', '7.56 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h8 and h7
- *** Results: ['60.4 Gbits/sec', '60.5 Gbits/sec']
- *** Iperf: testing TCP bandwidth between h1 and h8
- *** Results: ['2.48 Mbits/sec', '3.44 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h2 and h8
- *** Results: ['928 Kbits/sec', '1.17 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h3 and h8
- *** Results: ['3.47 Mbits/sec', '3.66 Mbits/sec']
- *** Iperf: testing TCP bandwidth between h4 and h8
- *** Results: ['782 Kbits/sec', '829 Kbits/sec']
- *** Iperf: testing TCP bandwidth between h5 and h8
- *** Results: ['772 Kbits/sec', '952 Kbits/sec']
- *** Iperf: testing TCP bandwidth between h6 and h8
- *** Results: ['8.06 Mbits/sec', '10.2 Mbits/sec']

```
*** Iperf: testing TCP bandwidth between h7 and h8
*** Results: ['60.7 Gbits/sec', '60.7 Gbits/sec']
```

Sending 1470 byte datagrams

3. Measure the UDP packet loss between every pair of hosts at a bandwidth of 15 Mb/s.

server: h2 client: h1 Done running iperf on server, starting client now Client connecting to 10.0.0.2, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) 3 local 10.0.0.1 port 46922 connected with 10.0.0.2 port 5001 Transfer Bandwidth [ID] Interval [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.2 sec 13.0 MBytes 9.72 Mbits/sec 0.427 ms 3499/12754 (27%) 3] 0.0-11.2 sec 4 datagrams received out-of-order Shutting down the iperf server server: h3 client: h1 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.3, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) 3 local 10.0.0.1 port 40617 connected with 10.0.0.3 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.1 sec 17.5 MBytes 14.6 Mbits/sec 0.114 ms 250/12755 (2%) 3] 0.0-10.1 sec 1 datagrams received out-of-order Shutting down the iperf server server: h4 client: h1 Done running iperf on server, starting client now Client connecting to 10.0.0.4, UDP port 5001

UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.1 port 56787 connected with 10.0.0.4 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12757 datagrams [3] Server Report: [3] 0.0-11.2 sec 12.8 MBytes 9.62 Mbits/sec 0.451 ms 3601/12756 (28%) [3] 0.0-11.2 sec 2 datagrams received out-of-order Shutting down the iperf server server: h5 client: h1 Done running iperf on server, starting client now ______ Client connecting to 10.0.0.5, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.1 port 59555 connected with 10.0.0.5 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.2 sec 12.8 MBytes 9.63 Mbits/sec 0.388 ms 3593/12755 (28%) [3] 0.0-11.2 sec 1 datagrams received out-of-order Shutting down the iperf server server: h6 client: h1 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.6, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.1 port 37729 connected with 10.0.0.6 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.1 sec 17.3 MBytes 14.4 Mbits/sec 0.114 ms 418/12755 (3.3%) [3] 0.0-10.1 sec 18 datagrams received out-of-order

server: h7 client: h1 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.7, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) [3] local 10.0.0.1 port 53408 connected with 10.0.0.7 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.1 sec 17.0 MBytes 14.2 Mbits/sec 0.139 ms 620/12755 (4.9%) [3] 0.0-10.1 sec 26 datagrams received out-of-order Shutting down the iperf server server: h8 client: h1 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.8, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) ______ [3] local 10.0.0.1 port 52873 connected with 10.0.0.8 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.1 sec 17.0 MBytes 14.1 Mbits/sec 0.189 ms 632/12755 (5%) [3] 0.0-10.1 sec 11 datagrams received out-of-order Shutting down the iperf server server: h1 client: h2 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.1, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) .____ [3] local 10.0.0.2 port 42365 connected with 10.0.0.1 port 5001

```
[ ID] Interval
                   Transfer
                               Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 13.0 MBytes 9.72 Mbits/sec
                                                0.385 ms 3487/12754 (27%)
[ 3] 0.0-11.2 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h3 client: h2
Done running iperf on server, starting client now
______
Client connecting to 10.0.0.3, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
_____
3 local 10.0.0.2 port 59756 connected with 10.0.0.3 port 5001
[ ID] Interval
                  Transfer
                             Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 12.7 MBytes 9.55 Mbits/sec 0.439 ms 3664/12755 (29%)
[ 3] 0.0-11.2 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h4 client: h2
Done running iperf on server, starting client now
Client connecting to 10.0.0.4, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
[ 3] local 10.0.0.2 port 47147 connected with 10.0.0.4 port 5001
[ ID] Interval
                  Transfer
                               Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12757 datagrams
[ 3] Server Report:
[ 3] 0.0-10.0 sec 17.7 MBytes 14.9 Mbits/sec 0.061 ms 123/12756
(0.96\%)
[ 3] 0.0-10.0 sec 1 datagrams received out-of-order
```

server: h5 client: h2 Done running iperf on server, starting client now Client connecting to 10.0.0.5, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.2 port 36243 connected with 10.0.0.5 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.7 MBytes 14.9 Mbits/sec 0.056 ms 133/12755 (1%) [3] 0.0-10.0 sec 1 datagrams received out-of-order Shutting down the iperf server server: h6 client: h2 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.6, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) ______ [3] local 10.0.0.2 port 50178 connected with 10.0.0.6 port 5001 Transfer [ID] Interval Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.2 sec 12.6 MBytes 9.45 Mbits/sec 0.401 ms 3760/12755 (29%) [3] 0.0-11.2 sec 7 datagrams received out-of-order Shutting down the iperf server server: h7 client: h2 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.7, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.2 port 44668 connected with 10.0.0.7 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec

| [3] Sent 12757 datagrams |
|---|
| [3] Server Report: |
| [3] 0.0-11.2 sec 12.3 MBytes 9.21 Mbits/sec 0.510 ms 4010/12754 (31%) |
| [3] 0.0-11.2 sec 21 datagrams received out-of-order |
| Shutting down the iperf server |
| server: h8 client: h2 Done running iperf on server, starting client now |
| Client connecting to 10.0.0.8, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) |
| [3] local 10.0.0.2 port 42820 connected with 10.0.0.8 port 5001 |
| [ID] Interval Transfer Bandwidth |
| [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec |
| [3] Sent 12756 datagrams |
| [3] Server Report: |
| [3] 0.0-11.2 sec 12.3 MBytes 9.22 Mbits/sec 0.553 ms 4001/12755 (31%) |
| [3] 0.0-11.2 sec 3 datagrams received out-of-order |
| Shutting down the iperf server |
| server: h1 client: h3 |
| Done running iperf on server, starting client now |
| |
| Client connecting to 10.0.0.1, UDP port 5001 |
| Sending 1470 byte datagrams |
| UDP buffer size: 208 KByte (default) |
| [3] local 10.0.0.3 port 44388 connected with 10.0.0.1 port 5001 [ID] Interval Transfer Bandwidth |
| [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec |
| [3] Sent 12756 datagrams |
| [3] Server Report: |
| [3] 0.0-10.1 sec 17.5 MBytes 14.6 Mbits/sec 0.136 ms 255/12755 (2%) |
| [3] 0.0-10.1 sec 2 datagrams received out-of-order |
| Shutting down the iperf server |
| server: h2 client: h3 |
| Done running iperf on server, starting client now |
| |

Client connecting to 10.0.0.2, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.3 port 34054 connected with 10.0.0.2 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.4 sec 12.0 MBytes 9.72 Mbits/sec 0.446 ms 4193/12755 (33%) [3] 0.0-10.4 sec 8 datagrams received out-of-order Shutting down the iperf server server: h4 client: h3 Done running iperf on server, starting client now Client connecting to 10.0.0.4, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) 3 local 10.0.0.3 port 54546 connected with 10.0.0.4 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.3 sec 13.0 MBytes 9.64 Mbits/sec 0.383 ms 3517/12755 (28%) [3] 0.0-11.3 sec 1 datagrams received out-of-order Shutting down the iperf server server: h5 client: h3 Done running iperf on server, starting client now -----Client connecting to 10.0.0.5, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.3 port 38739 connected with 10.0.0.5 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.3 sec 13.0 MBytes 9.62 Mbits/sec 0.469 ms 3509/12755 (28%) [3] 0.0-11.3 sec 24 datagrams received out-of-order Shutting down the iperf server server: h6 client: h3 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.6, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) [3] local 10.0.0.3 port 45115 connected with 10.0.0.6 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: 0.099 ms 128/12755 (1%) [3] 0.0-10.0 sec 17.7 MBytes 14.9 Mbits/sec 3] 0.0-10.0 sec 12 datagrams received out-of-order Shutting down the iperf server server: h7 client: h3 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.7, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ 3 local 10.0.0.3 port 46237 connected with 10.0.0.7 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.3 MBytes 14.6 Mbits/sec 0.104 ms 389/12755 (3%) 3] 0.0-10.0 sec 26 datagrams received out-of-order Shutting down the iperf server server: h8 client: h3 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.8, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default)

[3] local 10.0.0.3 port 33090 connected with 10.0.0.8 port 5001 Transfer Bandwidth [ID] Interval [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.3 MBytes 14.6 Mbits/sec 0.149 ms 391/12755 (3.1%) 3] 0.0-10.0 sec 2 datagrams received out-of-order Shutting down the iperf server server: h1 client: h4 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.1, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.4 port 37872 connected with 10.0.0.1 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.2 sec 13.0 MBytes 9.72 Mbits/sec 0.400 ms 3489/12754 (27%) [3] 0.0-11.2 sec 2 datagrams received out-of-order Shutting down the iperf server server: h2 client: h4 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.2, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.4 port 54675 connected with 10.0.0.2 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.7 MBytes 14.9 Mbits/sec 0.118 ms 103/12755 (0.81%)[3] 0.0-10.0 sec 1 datagrams received out-of-order

server: h3 client: h4 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.3, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) 3 local 10.0.0.4 port 45812 connected with 10.0.0.3 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.2 sec 12.7 MBytes 9.51 Mbits/sec 0.369 ms 3691/12754 (29%) [3] 0.0-11.2 sec 1 datagrams received out-of-order Shutting down the iperf server server: h5 client: h4 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.5, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) ______ 3 local 10.0.0.4 port 50357 connected with 10.0.0.5 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec 0.015 ms 0/12755 (0%) [3] 0.0-10.0 sec 1 datagrams received out-of-order Shutting down the iperf server server: h6 client: h4 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.6, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) [3] local 10.0.0.4 port 43211 connected with 10.0.0.6 port 5001

```
[ ID] Interval
                  Transfer
                             Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-10.2 sec 11.4 MBytes 9.43 Mbits/sec 0.319 ms 4592/12755 (36%)
[ 3] 0.0-10.2 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h7 client: h4
Done running iperf on server, starting client now
______
Client connecting to 10.0.0.7, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
_____
3 local 10.0.0.4 port 44220 connected with 10.0.0.7 port 5001
[ ID] Interval
                  Transfer
                            Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 12.4 MBytes 9.29 Mbits/sec 0.462 ms 3943/12755 (31%)
[ 3] 0.0-11.2 sec 25 datagrams received out-of-order
Shutting down the iperf server
server: h8 client: h4
Done running iperf on server, starting client now
Client connecting to 10.0.0.8, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
[ 3] local 10.0.0.4 port 33154 connected with 10.0.0.8 port 5001
[ ID] Interval
                  Transfer
                               Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 12.3 MBytes 9.25 Mbits/sec 0.353 ms 3987/12756 (31%)
[ 3] 0.0-11.2 sec 27 datagrams received out-of-order
Shutting down the iperf server
```

server: h1 client: h5

Done running iperf on server, starting client now Client connecting to 10.0.0.1, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.5 port 38420 connected with 10.0.0.1 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.2 sec 13.0 MBytes 9.72 Mbits/sec 0.428 ms 3488/12755 (27%) [3] 0.0-11.2 sec 2 datagrams received out-of-order Shutting down the iperf server server: h2 client: h5 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.2, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ 3 local 10.0.0.5 port 58488 connected with 10.0.0.2 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.7 MBytes 14.9 Mbits/sec 0.093 ms 123/12755 (0.96%)[3] 0.0-10.0 sec 1 datagrams received out-of-order Shutting down the iperf server server: h3 client: h5 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.3, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.5 port 59314 connected with 10.0.0.3 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec

| [3] Sent 12756 datagrams |
|---|
| [3] Server Report: |
| [3] 0.0-11.2 sec 12.7 MBytes 9.50 Mbits/sec 0.283 ms 3698/12755 (29%) |
| [3] 0.0-11.2 sec 1 datagrams received out-of-order |
| Shutting down the iperf server |
| server: h4 client: h5 Done running iperf on server, starting client now |
| Client connecting to 10.0.0.4, UDP port 5001 |
| Sending 1470 byte datagrams |
| UDP buffer size: 208 KByte (default) |
| |
| [3] local 10.0.0.5 port 57462 connected with 10.0.0.4 port 5001 |
| [ID] Interval Transfer Bandwidth |
| [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams |
| [3] Server Report: |
| [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec 0.013 ms 0/12755 (0%) |
| [3] 0.0-10.0 sec 1 datagrams received out-of-order |
| Shutting down the iperf server |
| server: h6 client: h5 |
| Done running iperf on server, starting client now |
| |
| Client connecting to 10.0.0.6, UDP port 5001 |
| Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) |
| |
| [3] local 10.0.0.5 port 46090 connected with 10.0.0.6 port 5001 |
| [ID] Interval Transfer Bandwidth |
| [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec |
| [3] Sent 12756 datagrams |
| [3] Server Report: [3] 0.0-11.2 sec 12.6 MBytes 9.45 Mbits/sec 0.424 ms 3772/12754 (30%) |
| [3] 0.0-11.2 sec 1 datagrams received out-of-order |
| Shutting down the iperf server |
| server: h7 client: h5 |
| Done running iperf on server, starting client now |

Client connecting to 10.0.0.7, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.5 port 58561 connected with 10.0.0.7 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.2 sec 12.3 MBytes 9.25 Mbits/sec 0.420 ms 3981/12754 (31%) [3] 0.0-11.2 sec 3 datagrams received out-of-order Shutting down the iperf server server: h8 client: h5 Done running iperf on server, starting client now Client connecting to 10.0.0.8, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) 3 local 10.0.0.5 port 47760 connected with 10.0.0.8 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-11.2 sec 12.4 MBytes 9.29 Mbits/sec 0.422 ms 3939/12754 (31%) [3] 0.0-11.2 sec 10 datagrams received out-of-order Shutting down the iperf server server: h1 client: h6 Done running iperf on server, starting client now -----Client connecting to 10.0.0.1, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.6 port 33793 connected with 10.0.0.1 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.3 MBytes 14.5 Mbits/sec 0.119 ms 384/12755 (3%)

```
[ 3] 0.0-10.0 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h2 client: h6
Done running iperf on server, starting client now
_____
Client connecting to 10.0.0.2, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
[ 3] local 10.0.0.6 port 55549 connected with 10.0.0.2 port 5001
                  Transfer
[ ID] Interval
                               Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-10.4 sec 12.0 MBytes 9.71 Mbits/sec
                                                0.440 ms 4192/12755 (33%)
[ 3] 0.0-10.4 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h3 client: h6
Done running iperf on server, starting client now
_____
Client connecting to 10.0.0.3, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
_____
[ 3] local 10.0.0.6 port 45176 connected with 10.0.0.3 port 5001
[ ID] Interval
                  Transfer
                               Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-10.0 sec 17.7 MBytes 14.9 Mbits/sec
                                                0.056 ms 117/12755
(0.92\%)
[ 3] 0.0-10.0 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h4 client: h6
Done running iperf on server, starting client now
Client connecting to 10.0.0.4, UDP port 5001
Sending 1470 byte datagrams
```

```
UDP buffer size: 208 KByte (default)
_____
[ 3] local 10.0.0.6 port 54724 connected with 10.0.0.4 port 5001
                  Transfer
[ ID] Interval
                              Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 12.9 MBytes 9.63 Mbits/sec
                                              0.348 ms 3559/12754 (28%)
[ 3] 0.0-11.2 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h5 client: h6
Done running iperf on server, starting client now
______
Client connecting to 10.0.0.5, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
[ 3] local 10.0.0.6 port 50675 connected with 10.0.0.5 port 5001
[ ID] Interval
                  Transfer
                            Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 12.9 MBytes 9.61 Mbits/sec 0.431 ms 3582/12756 (28%)
Shutting down the iperf server
server: h7 client: h6
Done running iperf on server, starting client now
_____
Client connecting to 10.0.0.7, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
[ 3] local 10.0.0.6 port 39077 connected with 10.0.0.7 port 5001
[ ID] Interval
                  Transfer
                             Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-10.0 sec 17.5 MBytes 14.7 Mbits/sec
                                              0.066 ms 249/12755 (2%)
[ 3] 0.0-10.0 sec 3 datagrams received out-of-order
```

server: h8 client: h6 Done running iperf on server, starting client now ______ Client connecting to 10.0.0.8, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) ______ [3] local 10.0.0.6 port 33384 connected with 10.0.0.8 port 5001 Transfer Bandwidth [ID] Interval [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.5 MBytes 14.7 Mbits/sec 0.084 ms 277/12755 (2.2%) [3] 0.0-10.0 sec 27 datagrams received out-of-order Shutting down the iperf server server: h1 client: h7 Done running iperf on server, starting client now Client connecting to 10.0.0.1, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ 3 local 10.0.0.7 port 48817 connected with 10.0.0.1 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.0 MBytes 14.3 Mbits/sec 0.153 ms 626/12755 (4.9%) 3] 0.0-10.0 sec 2 datagrams received out-of-order Shutting down the iperf server server: h2 client: h7 Done running iperf on server, starting client now ______ Client connecting to 10.0.0.2, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.7 port 41772 connected with 10.0.0.2 port 5001 [ID] Interval Transfer Bandwidth

```
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 13.0 MBytes 9.72 Mbits/sec
                                              0.409 ms 3488/12755 (27%)
[ 3] 0.0-11.2 sec 2 datagrams received out-of-order
Shutting down the iperf server
server: h3 client: h7
Done running iperf on server, starting client now
_____
Client connecting to 10.0.0.3, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
______
3 local 10.0.0.7 port 50920 connected with 10.0.0.3 port 5001
[ ID] Interval
                 Transfer
                             Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-10.0 sec 17.3 MBytes 14.6 Mbits/sec 0.112 ms 382/12755 (3%)
[ 3] 0.0-10.0 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h4 client: h7
Done running iperf on server, starting client now
_____
Client connecting to 10.0.0.4, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
_____
3 local 10.0.0.7 port 35121 connected with 10.0.0.4 port 5001
[ ID] Interval
                 Transfer
                             Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 12.9 MBytes 9.63 Mbits/sec
                                              0.362 ms 3580/12755 (28%)
[ 3] 0.0-11.2 sec 2 datagrams received out-of-order
Shutting down the iperf server
server: h5 client: h7
```

Done running iperf on server, starting client now

Client connecting to 10.0.0.5, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ 3 local 10.0.0.7 port 40854 connected with 10.0.0.5 port 5001 Transfer [ID] Interval Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12757 datagrams [3] Server Report: [3] 0.0-11.2 sec 12.9 MBytes 9.62 Mbits/sec 0.504 ms 3579/12756 (28%) [3] 0.0-11.2 sec 1 datagrams received out-of-order Shutting down the iperf server server: h6 client: h7 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.6, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.7 port 44524 connected with 10.0.0.6 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.5 MBytes 14.7 Mbits/sec 0.087 ms 248/12755 (1.9%) [3] 0.0-10.0 sec 1 datagrams received out-of-order Shutting down the iperf server server: h8 client: h7 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.8, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ 3 local 10.0.0.7 port 38443 connected with 10.0.0.8 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report:

```
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
                                              0.018 \, \text{ms}
                                                          0/12755 (0%)
[ 3] 0.0-10.0 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h1 client: h8
Done running iperf on server, starting client now
_____
Client connecting to 10.0.0.1, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
_____
[ 3] local 10.0.0.8 port 38419 connected with 10.0.0.1 port 5001
[ ID] Interval
                  Transfer
                             Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-10.0 sec 17.0 MBytes 14.2 Mbits/sec
                                              0.107 ms 643/12756 (5%)
[ 3] 0.0-10.0 sec 1 datagrams received out-of-order
Shutting down the iperf server
server: h2 client: h8
Done running iperf on server, starting client now
_____
Client connecting to 10.0.0.2, UDP port 5001
Sending 1470 byte datagrams
UDP buffer size: 208 KByte (default)
-----
3 local 10.0.0.8 port 40895 connected with 10.0.0.2 port 5001
[ ID] Interval
                  Transfer
                            Bandwidth
[ 3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec
[ 3] Sent 12756 datagrams
[ 3] Server Report:
[ 3] 0.0-11.2 sec 13.0 MBytes 9.72 Mbits/sec 0.462 ms 3489/12755 (27%)
[ 3] 0.0-11.2 sec 29 datagrams received out-of-order
Shutting down the iperf server
server: h3 client: h8
Done running iperf on server, starting client now
Client connecting to 10.0.0.3, UDP port 5001
Sending 1470 byte datagrams
```

UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.8 port 45871 connected with 10.0.0.3 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.3 MBytes 14.5 Mbits/sec 0.145 ms 388/12755 (3%) [3] 0.0-10.0 sec 1 datagrams received out-of-order Shutting down the iperf server server: h4 client: h8 Done running iperf on server, starting client now ______ Client connecting to 10.0.0.4, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.8 port 44526 connected with 10.0.0.4 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12757 datagrams [3] Server Report: [3] 0.0-11.2 sec 12.9 MBytes 9.63 Mbits/sec 0.389 ms 3583/12755 (28%) [3] 0.0-11.2 sec 1 datagrams received out-of-order Shutting down the iperf server server: h5 client: h8 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.5, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ [3] local 10.0.0.8 port 37638 connected with 10.0.0.5 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.3 sec 11.8 MBytes 9.57 Mbits/sec 0.399 ms 4336/12755 (34%) [3] 0.0-10.3 sec 1 datagrams received out-of-order

server: h6 client: h8 Done running iperf on server, starting client now _____ Client connecting to 10.0.0.6, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) [3] local 10.0.0.8 port 33360 connected with 10.0.0.6 port 5001 [ID] Interval Transfer Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.5 MBytes 14.7 Mbits/sec 0.071 ms 267/12756 (2.1%) Shutting down the iperf server server: h7 client: h8 Done running iperf on server, starting client now Client connecting to 10.0.0.7, UDP port 5001 Sending 1470 byte datagrams UDP buffer size: 208 KByte (default) _____ 3] local 10.0.0.8 port 51213 connected with 10.0.0.7 port 5001 Transfer [ID] Interval Bandwidth [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec [3] Sent 12756 datagrams [3] Server Report: [3] 0.0-10.0 sec 17.9 MBytes 15.0 Mbits/sec $0.016 \, \text{ms}$ 0/12755 (0%) 3] 0.0-10.0 sec 1 datagrams received out-of-order

Shutting down the iperf server