Renan Santana
CNT4713
T/Th 2-3:15
HW2 Evidence Report

Figures 1-4 : Shows Receive and send with a packet loss of 10%. Note: the file transfer in figure 2 took around 15 seconds to complete.

```
           @ubuntu:~$ sudo mn --link tc,loss=10
[sudo] password for
*** Creating network
*** Adding controller
*** Adding hosts:
h1 h2
*** Adding switches:
s1
*** Adding links:
(10% loss) (10% loss) (h1, s1) (10% loss) (10% loss) (h2, s1)
*** Configuring hosts
h1 h2
*** Starting controller
*** Starting 1 switches
s1 (10% loss) (10% loss)
*** Starting CLI:
mininet> net
h1 h1-eth0:s1-eth1
h2 h2-eth0:s1-eth2
s1 lo:  s1-eth1:h1-eth0 s1-eth2:h2-eth0
c0
mininet> xterm h1 h2
```

Figure 1: Shows me creating the mininet with 10% packet loss

```
root@ubuntu:~/Desktop/hw2# ./server 5515 earth1.jpg
***** Receiving *****
Writting File: earth1.jpg
Transfer Size: 6358.46 Kb
Completed
***** Closing Connection *****
```

Figure 2: Receive a 6 Mb image with packet loss

```
root@ubuntu:~/Desktop/hw2# ./client 10.0.0.2 5515 earth.jpg
***** Sending *****
Sending File: earth.jpg
File size 6358.46 Kb
Throughput: 128.11 bits/sec
***** Closing Connection *****
```

Figure 2a: Transfer a 6 Mb image with packet loss

```
root@ubuntu:~/Desktop/hw2# ./server 5515 medSize1.jpg
***** Receiving *****
Writting File: medSize1.jpg
Transfer Size: 522.91 Kb
Completed
***** Closing Connection *****
```

Figure 3: Receive a half Mb image with packet loss

```
root@ubuntu:~/Desktop/hw2# ./client 10.0.0.2 5515 medSize.jpg
***** Sending *****
Sending File: medSize.jpg
File size 522.91 Kb
Throughput: 221.81 bits/sec
***** Closing Connection *****
```

Figure 3a: Transfer a half Mb image with packet loss

```
root@ubuntu:~/Desktop/hw2# ./server 5515 smallEarth1.png
***** Receiving *****
Writting File: smallEarth1.png
Transfer Size: 66.49 Kb
Completed
***** Closing Connection *****
```

Figure 4: Receive a small image with packet loss

```
root@ubuntu:~/Desktop/hw2# ./client 10.0.0.2 5515 smallEarth.png
***** Sending *****
Sending File: smallEarth.png
File size 66.49 Kb
Throughput: 40.60 bits/sec
***** Closing Connection *****
```

Figure 4a: Transfer a small image with packet loss

Figures 5-8 : Shows Receive and Send without packet loss.


```
          @ubuntu:~$ sudo mn
[sudo] password for            :
*** Creating network
*** Adding controller
*** Adding hosts:
h1 h2
*** Adding switches:
s1
*** Adding links:
(h1, s1) (h2, s1)
*** Configuring hosts
h1 h2
*** Starting controller
*** Starting 1 switches
s1
*** Starting CLI:
mininet> xterm h1 h2
```

Figure 5: Shows me switching mn to a non packet loss.


```
root@ubuntu:~/Desktop/hw2# ./server 5500 earth1.jpg
***** Receiving *****
Writting File: earth1.jpg
Transfer Size: 6358.46 Kb
Completed
***** Closing Connection *****
```

Figure 6: Receive a 6 Mb image without packet loss


```
root@ubuntu:~/Desktop/hw2# ./client 10.0.0.2 5500 earth.jpg
***** Sending *****
Sending File: earth.jpg
File size 6358.46 Kb
Throughput: 701.67 bits/sec
***** Closing Connection *****
```

Figure 6a: Transfer a 6 Mb image without packet loss

```
root@ubuntu:~/Desktop/hw2# ./server 5500 medSize1.jpg
***** Receiving *****
Writting File: medSize1.jpg
Transfer Size: 522.91 Kb
Completed
***** Closing Connection *****
```

Figure 7: Receive a half Mb image without packet loss

```
root@ubuntu:~/Desktop/hw2# ./client 10.0.0.2 5500 medSize.jpg
***** Sending *****
Sending File: medSize.jpg
File size 522.91 Kb
Throughput: 60.67 bits/sec
***** Closing Connection *****
```

Figure 7a: Transfer a half Mb image without packet loss

```
root@ubuntu:~/Desktop/hw2# ./server 5500 smallEarth1.png
***** Receiving *****
Writting File: smallEarth1.png
Transfer Size: 66.49 Kb
Completed
***** Closing Connection *****
```

Figure 8: Receive a small image without packet loss

```
root@ubuntu:~/Desktop/hw2# ./client 10.0.0.2 5500 smallEarth.png
***** Sending *****
Sending File: smallEarth.png
File size 66.49 Kb
Throughput: 1016.06 bits/sec
***** Closing Connection *****
```

Figure 8a: Transfer a small image without packet loss