CS-349

NETWORKS LAB

ASSIGNMENT 4

APPLICATION 4

GROUP 28

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Members :

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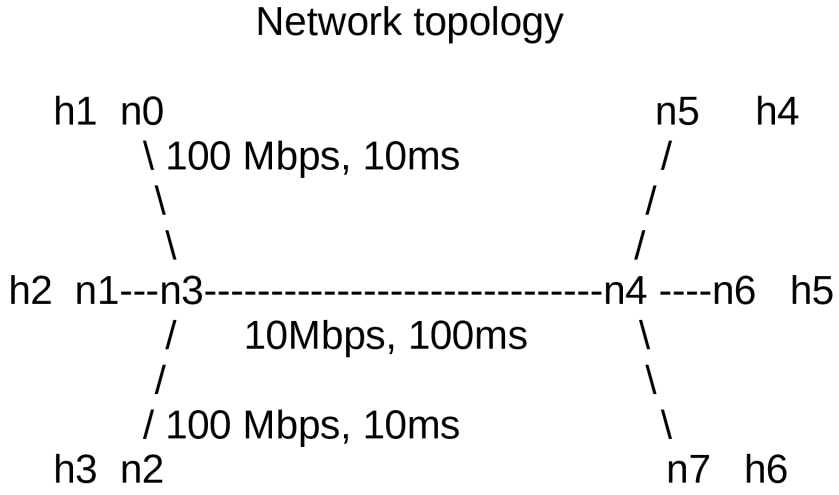
Important Information Regarding the experiment:

For the experiment, the network topology is represented as follows :



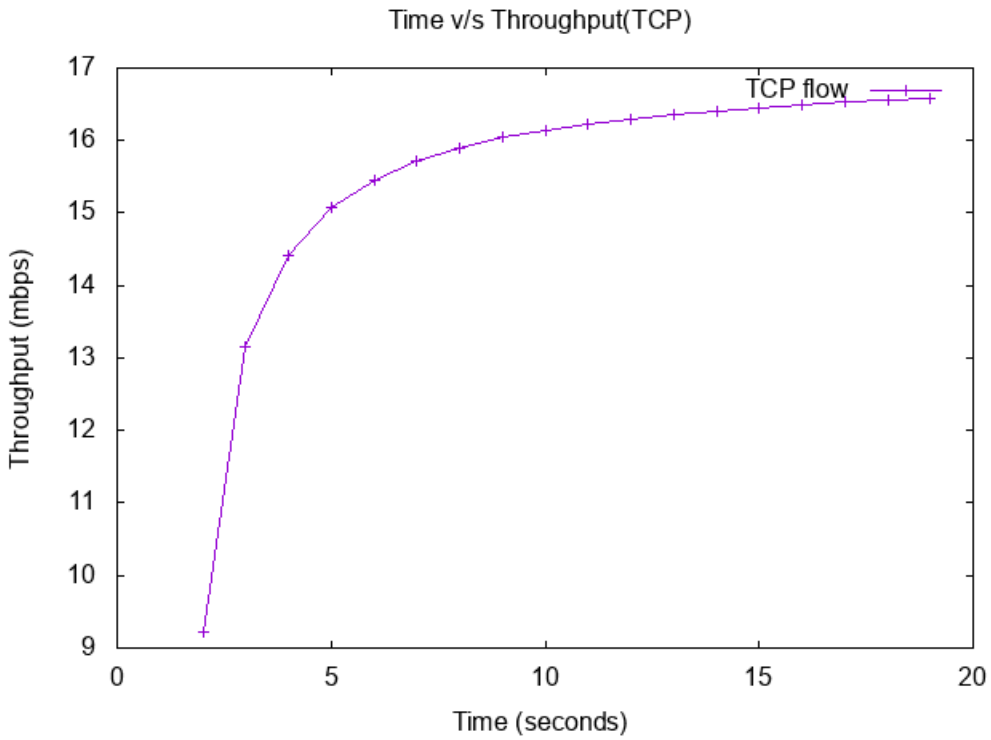
Connections :

h1-h4 / n0-n5 --> TCP
h2-h5 / n1-n6 --> TCP
h2-h3 / n1-n2 --> TCP
h3-h6 / n2-n7 --> UDP
h1-h5 / n0-n6 --> UDP
h4-h6 / n5-n7 --> UDP

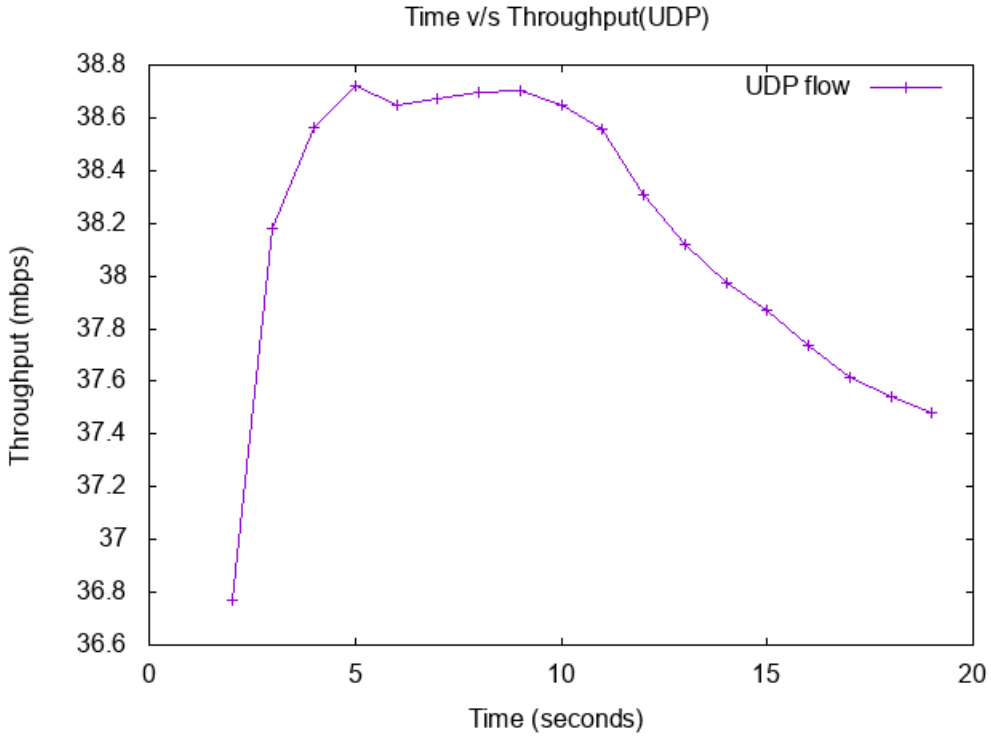
The code consists of the following files:

- **buffersize.cc** - This files contains the code, wherein the buffer size was increased from **10 packets** to **800 packets**. This files outputs **3 data files** : **buffersizefairness.plt**, **buffersize_tcp.plt** and **buffersize_udp.plt**.
- **udpincrease.cc** - This file contains the code, wherein the UDP flow was increased from **20 Mbps** to **100 Mbps**. From time t=0s to t=10s, the UDP flow is **20 Mbps**. After t=10s, the UDP flow is increased to **100 Mbps**. This file outputs **3 data files** : **UDPIncreaseFairness.plt**, **UDPIncreaseTCP.plt** and **UDPIncreaseUDP.plt**.

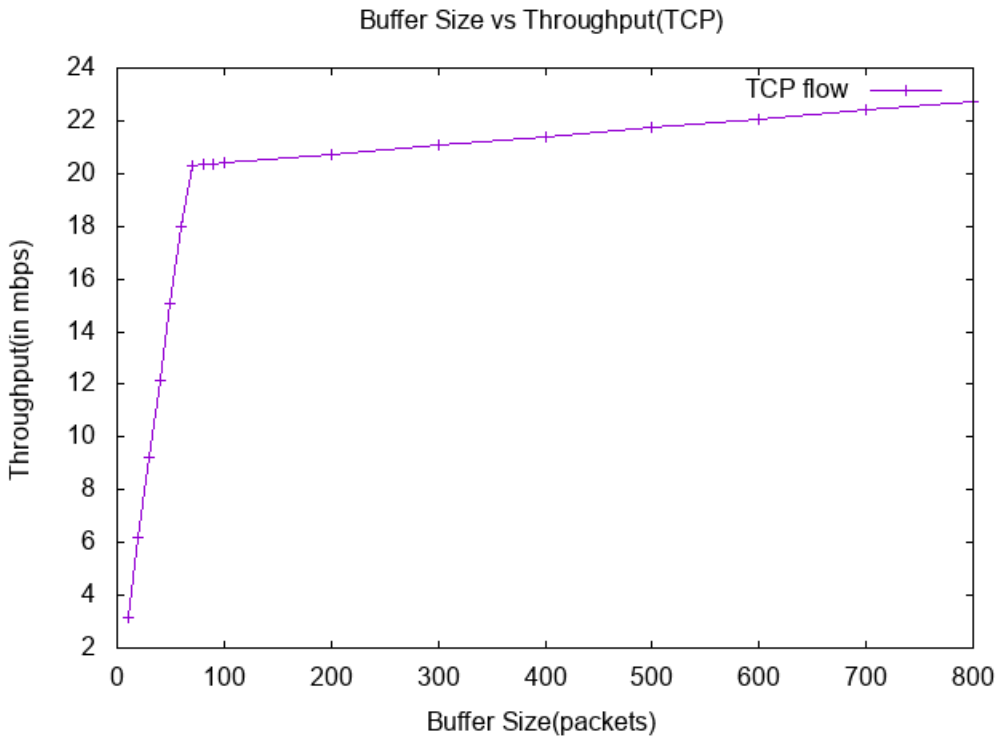
EFFECT OF INCREASING UDP FLOW ON TCP THROUGHPUT:



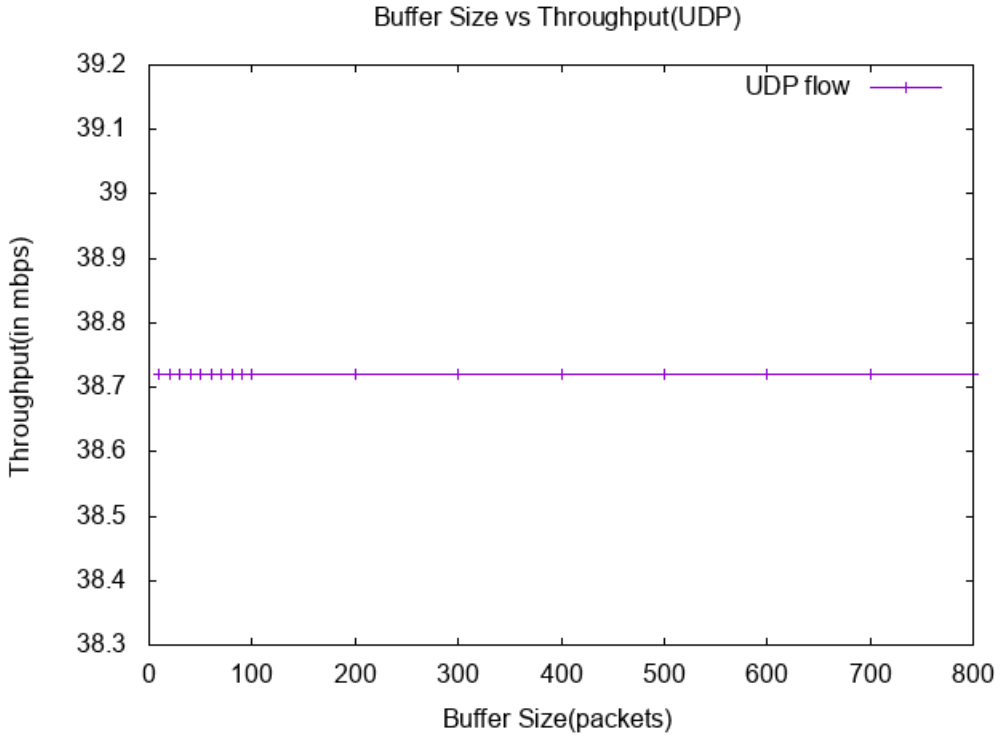
EFFECT OF INCREASING UDP FLOW ON UDP THROUGHPUT:



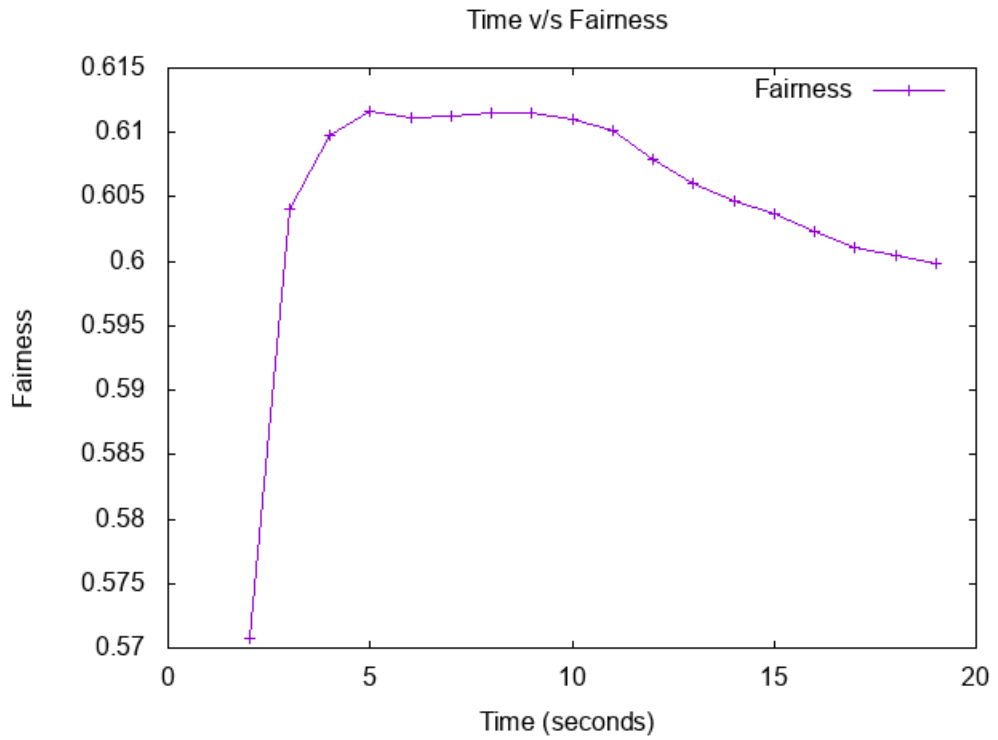
EFFECT OF BUFFER SIZE ON TCP THROUGHPUT:



EFFECT OF BUFFER SIZE ON UDP THROUGHPUT:



EFFECT OF INCREASING UDP FLOW ON FAIR SHARE OF BANDWIDTH:



EFFECT OF BUFFER SIZE ON FAIR SHARE OF BANDWIDTH: