Principles of Computer Communication: ECE3030

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LAB TASK: 4

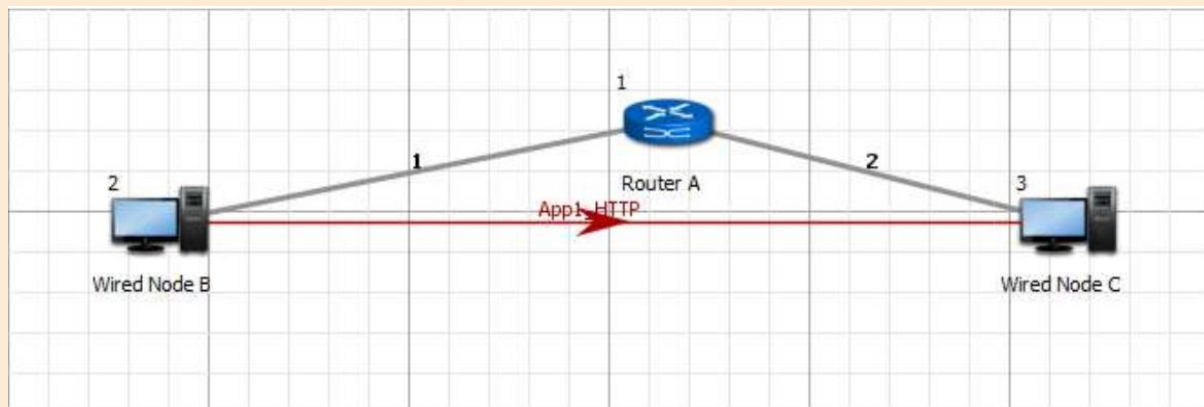# UDP & TCP

Aim

A study of performance between TCP and UDP busy and simple networks
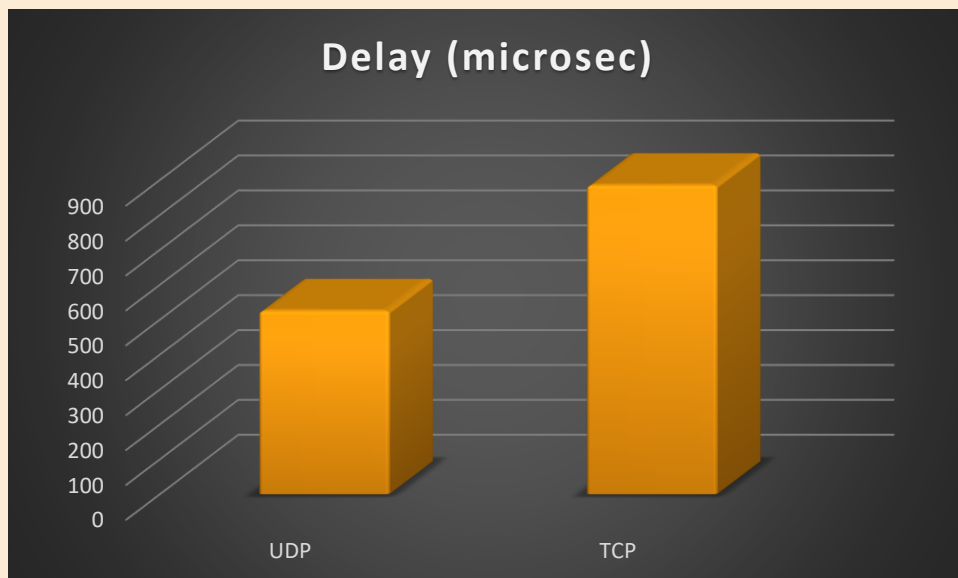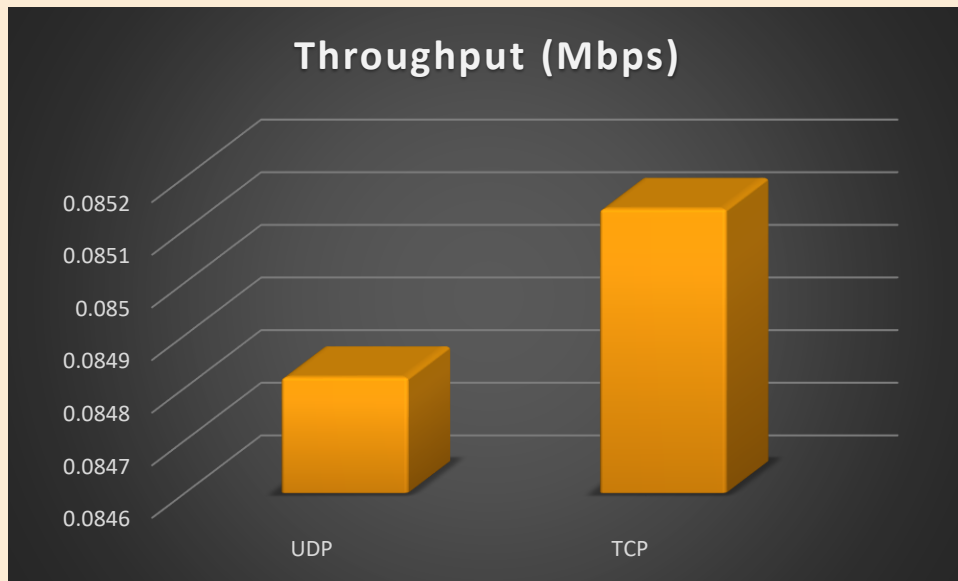
Tools Required

Netsim Software

Network Diagram

UDP:

Packet Transmitted	Packet Received	Payload Transmitted	Payload Receiverd	Throughput (Mbps)	Delay (microsec)
1089	1085	1064250	1060250	0.08482	525.575742

TCP:

Packet Transmitted	Packet Received	Payload Transmitted	Payload Receiverd	Throughput (Mbps)	Delay (microsec)
1089	1085	1064250	1064250	0.08514	885.27056

Graphs

Throughput (Mbps)

| 0.0852 |
| 0.0851 |
| 0.085 |
| 0.0849 |
| 0.0848 |
| 0.0847 |
| 0.0846 |

UDP   TCP

Delay (microsec)

| 900 |
| 800 |
| 700 |
| 600 |
| 500 |
| 400 |
| 300 |
| 200 |
| 100 |
| 0 |

UDP   TCP

Inference:

TCP is a connection-oriented protocol while UDP is a connectionless protocol. So, the delay should be more in TCP as, it takes some extra time to establish connection. This can be inferred from the Delay graph above. On the other hand, even the throughput of TCP is greater, showing that the extra delay makes it more reliable. But the difference is very minute when comparing with UDP