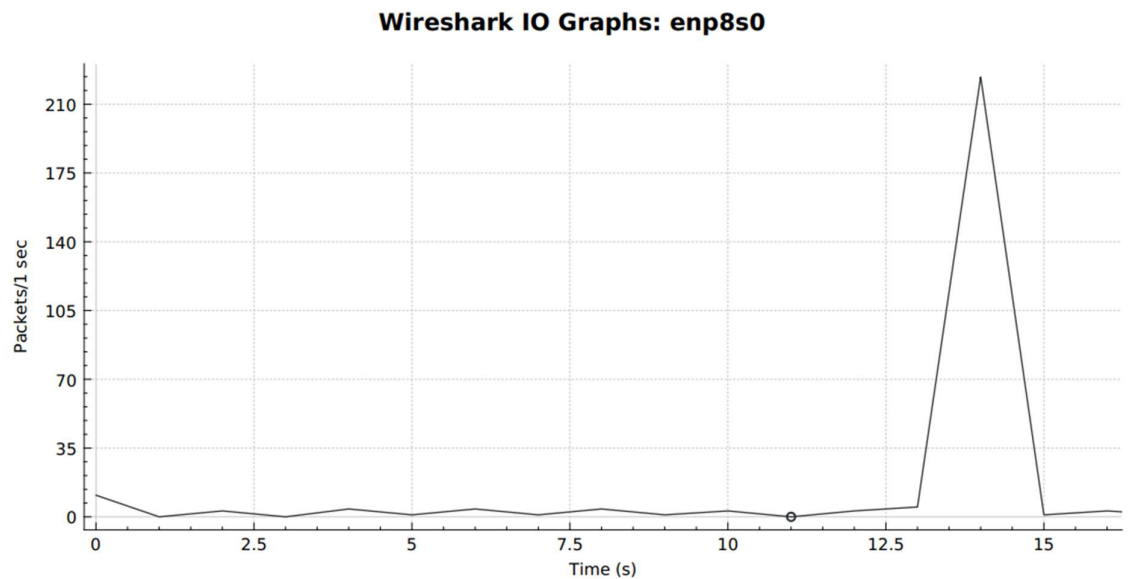# Wireshark Lab-report

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TCP-

1. Protocols Observed -HTTP, TCP.
2. For 1.jpg
   a. 250 packets transferred.
   b. No, packets have varying size.
   c. Sizes observed (in bytes) – 66, 74, 78, 83, 214, 1514, 2962, 4410, 5382, 7306, 8754 , 10202, 11650, 13098, 1456.
   d. IO graph

   e. 1 packet re-transmitted.
3. For 2.jpg
   a. 828 Packets transferred.
   b. No, Packets have varying size.
   c. Sizes observed (in bytes) – 66, 74, 78, 83, 214, 1514, 2962, 4410, 5858, 6095, 7306, 8754, 10202, 11650, 13098, 14546 .
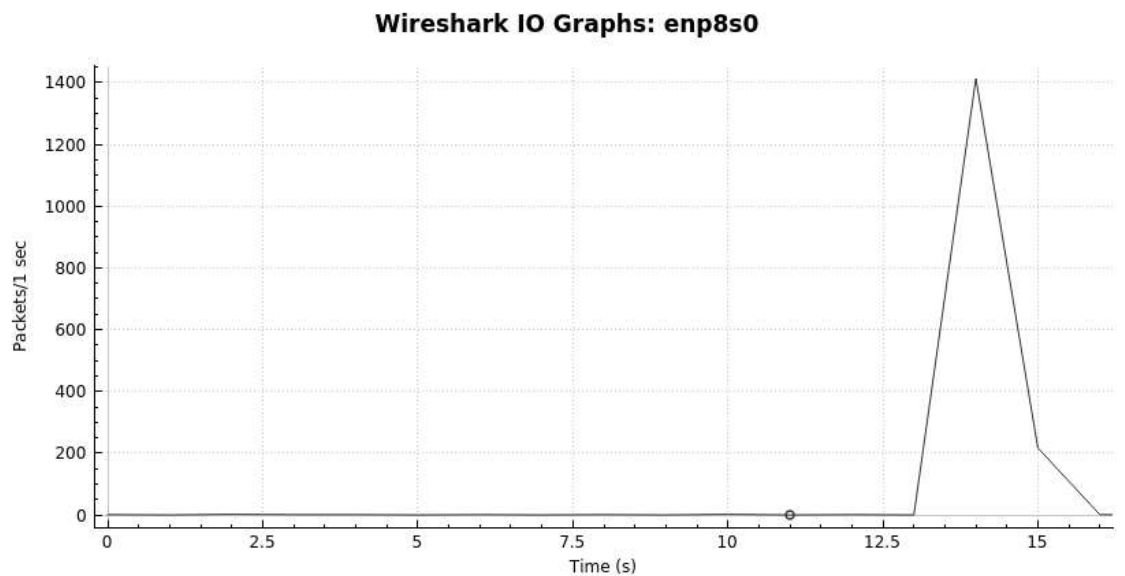
d. IO graph-

Wireshark IO Graphs: enp8s0
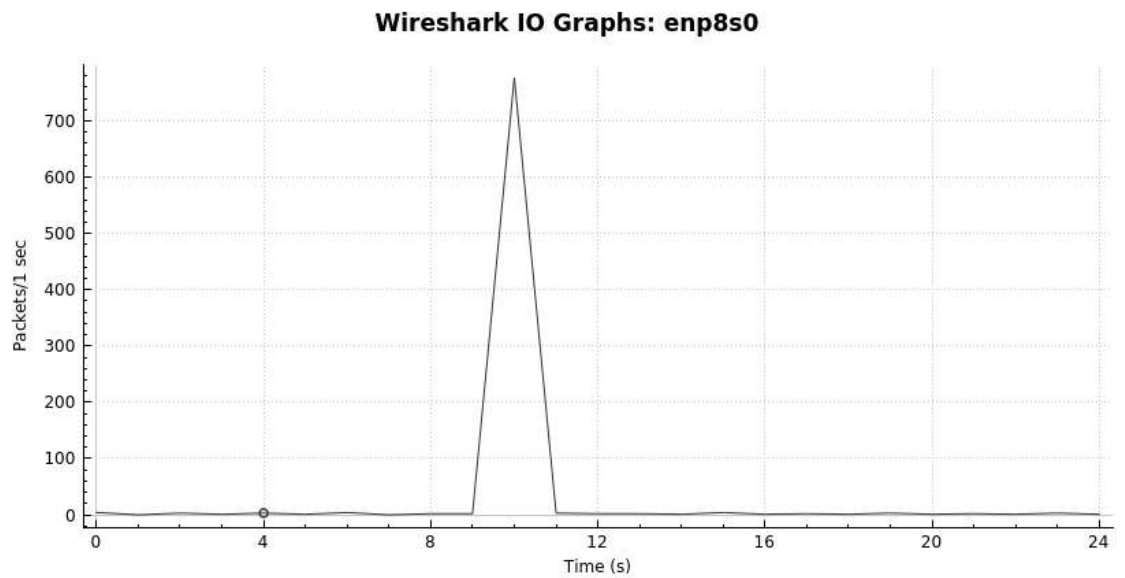
e. 2 packets were re-transmitted.
4. For 3.jpg
   a. 2003 packets transferred.
   b. NO, packets were of varying sizes.
   c. Observed Sized(in bytes)- 66, 74, 78, 83, 86, 214, 1514, 2962, 4410, 4760, 5858, 7306, 8754, 10202, 11650, 13098, 14546 .
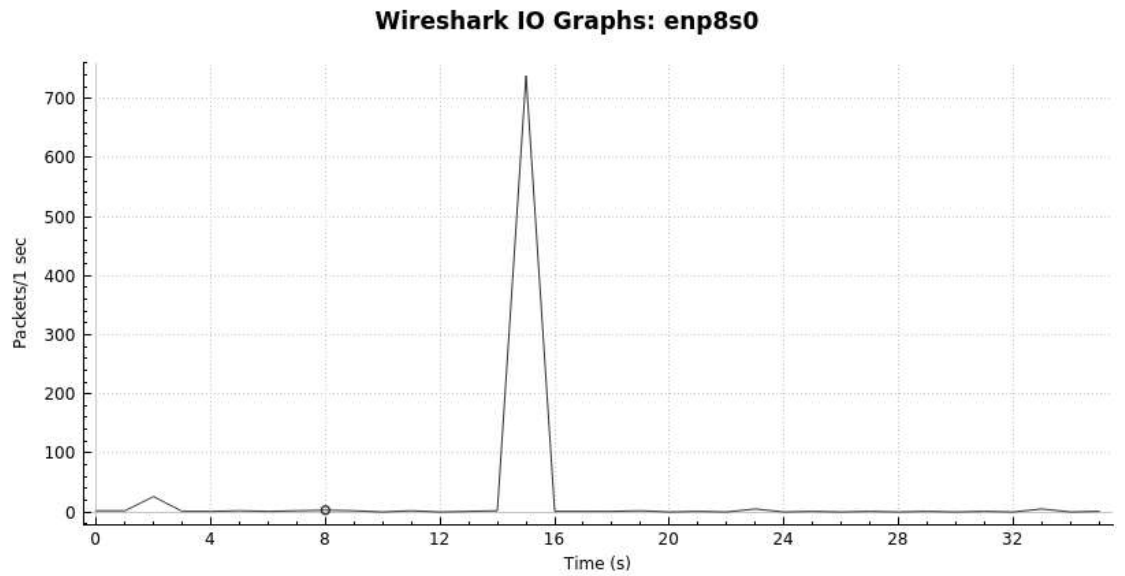   d. IO graph

Wireshark IO Graphs: enp8s0

e. 14 packets were re-transmitted.
5. For 4.jpg –
   a. 971 packets were transferred.
   b. No, packets were of varying sizes.

c. Observed Sizes(in bytes) – 66, 74, 78, 83, 86, 214, 1514, 2962, 4410, 5858, 7306, 8754, 10202, 11650, 13098, 13548, 14546 .

d. IO graph-

e. 13 packets were re-transmitted.

6. For 5.jpg –
   a. 1003 packets were transferred.
   b. No, packet size varies.
   c. Observed Packet sizes(in bytes) – 66, 74, 78, 83, 86, 214, 1514, 2962, 4410, 5858, 7194, 7306, 8754, 10202, 11650, 13098, 14546 .
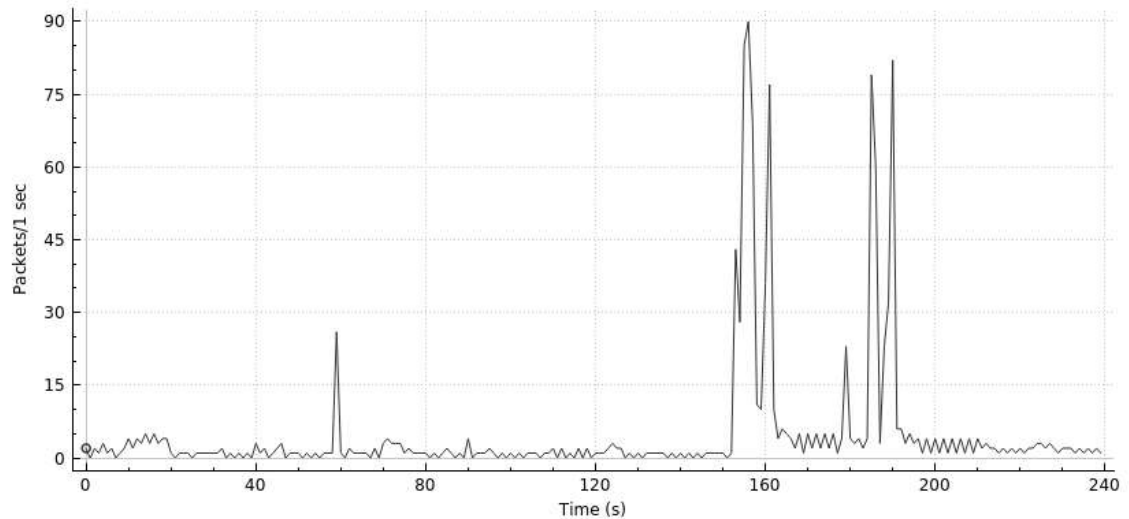   d. IO graph
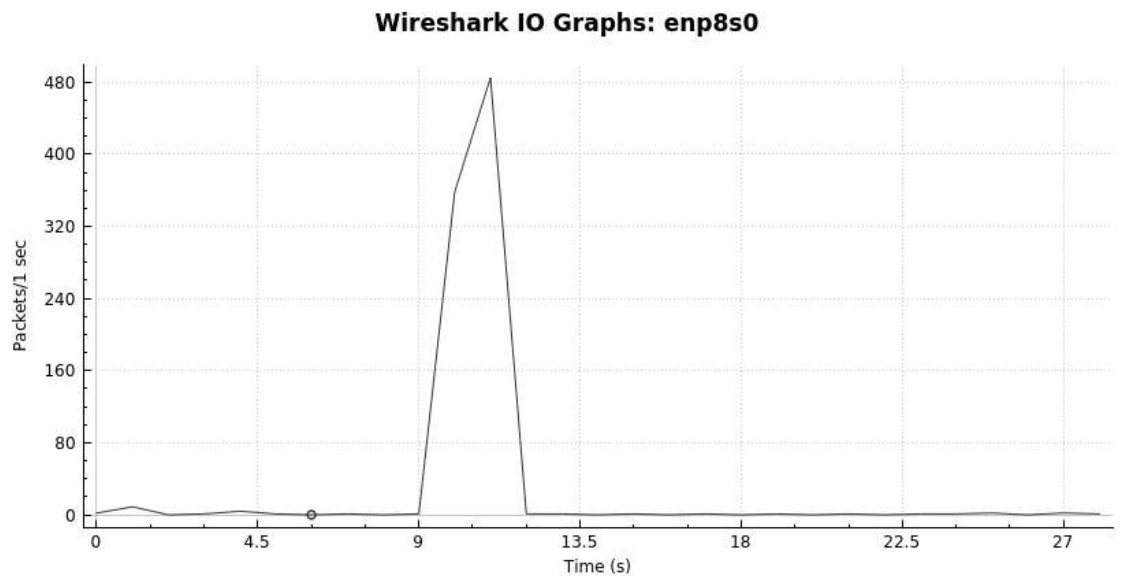
e. 6 packets were re-transmitted.

UDP

1. Protocol observed -Only UDP.
2. Yes, all the packets are of the same size. (1512 for bandwidth = 28kbps)
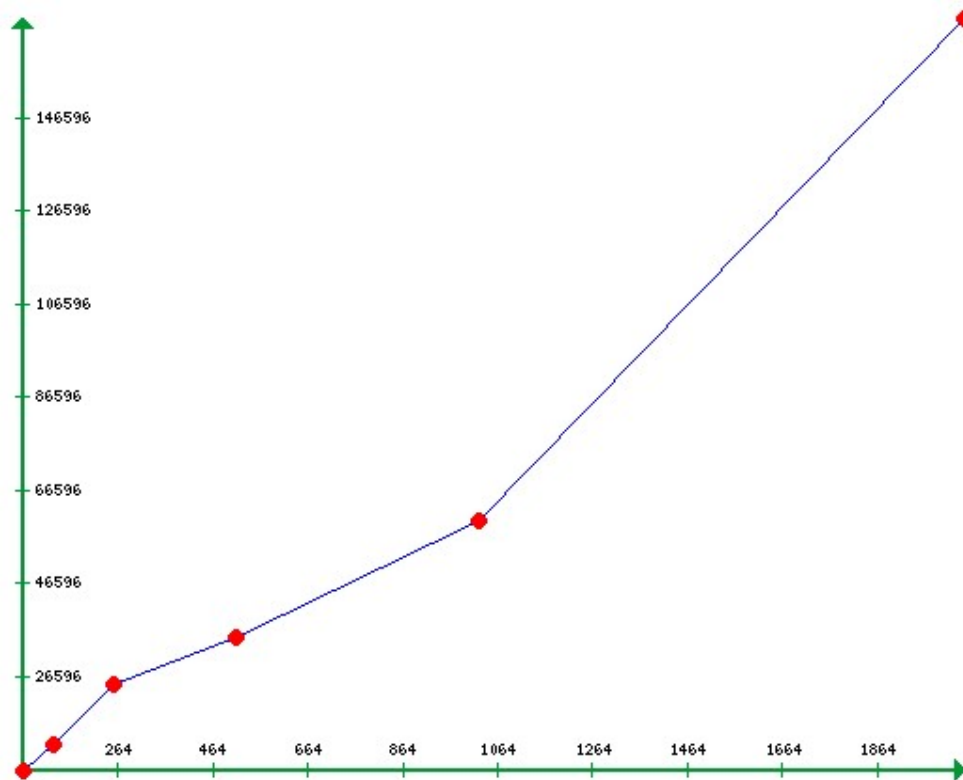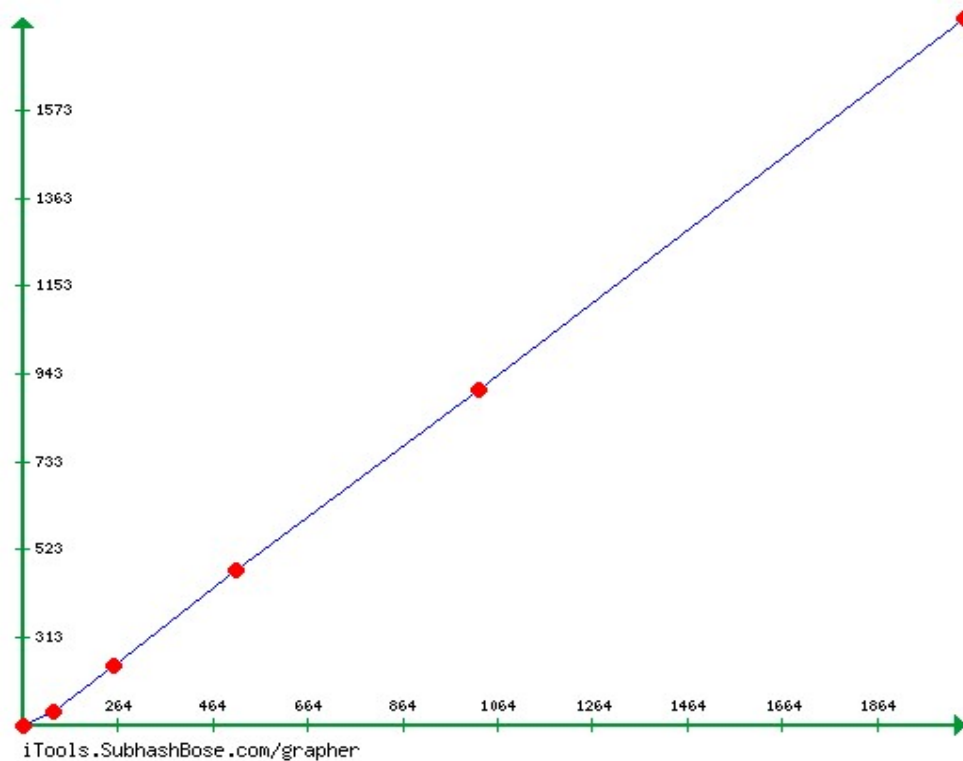3. IO graph-

Wireshark IO Graphs: enp8s0

Bandwidth (Kbps)	Throughput (bytes/sec)	No. of Packets
64	6,596	103
128	12000	133
256	25000	245
512	35000	475
1024	60000	907
2048	168000	1796

Graphs on next pages.

4.UDP throughput with respect to UDP bandwidth.

5. No. of UDP packets transmitted with respect to UDP bandwith.

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6. We observe that the UDP throughput varies almost linearly with respect to UDP bandwidth. Also, the no of UDP packets vary linearly with respect to UDP Bandwidth.