Project2 Report

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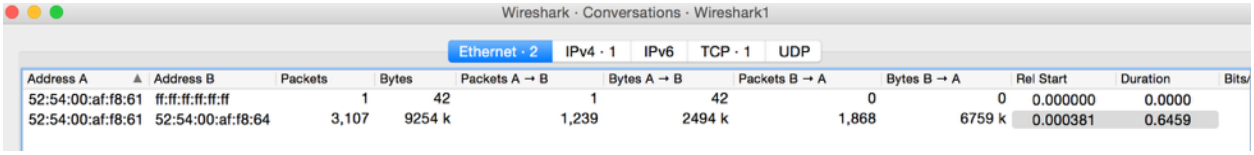
Q1:

Total number of transmitted packets at hostA is 1239.

Total number of transmitted packets at hostB is 1867.

The total number of transmitted/received packets at both sides are 3108.



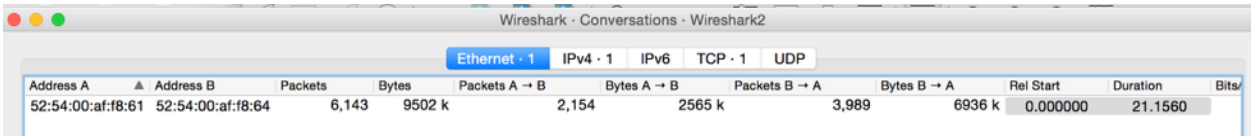
Q2:

$tc qdisc add dev ens6 root netem drop 20%

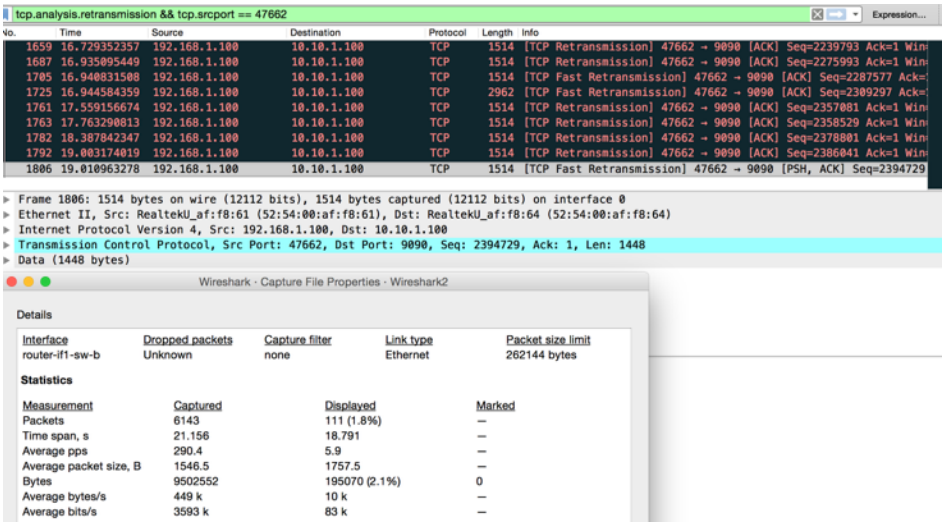
Total number of transmitted packets at hostA is 2125.

Total number of transmitted packets at hostB is 3987.

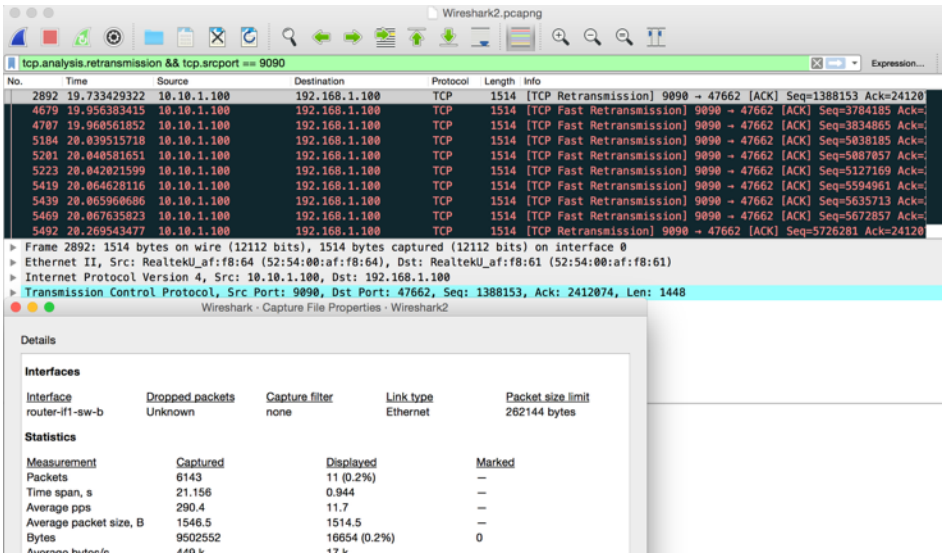
The total number of transmitted/received packets at both sides are 6143.



Total number of retransmitted packets at hostA is 105.



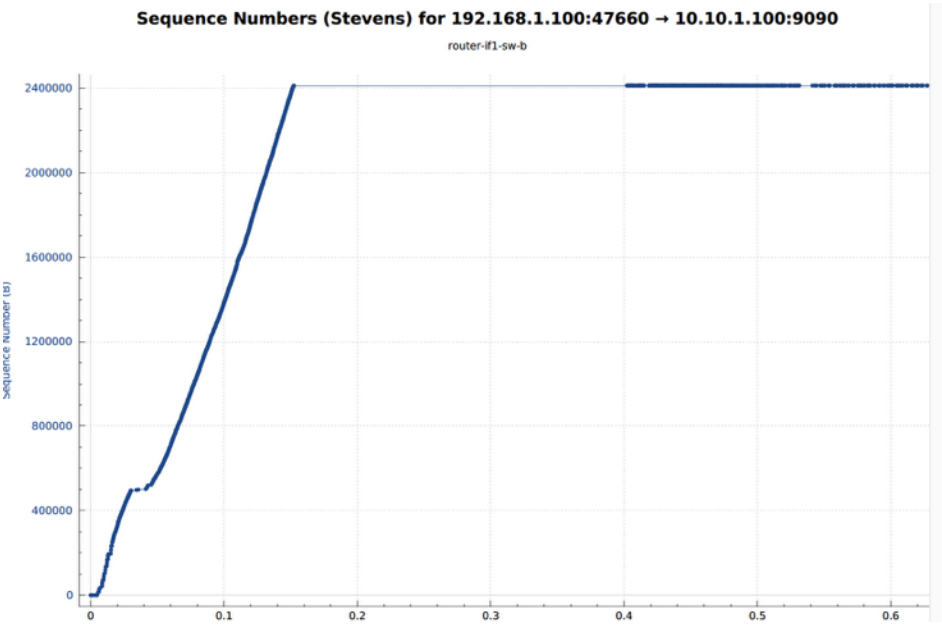
Total number of retransmitted packets at hostB is 11.



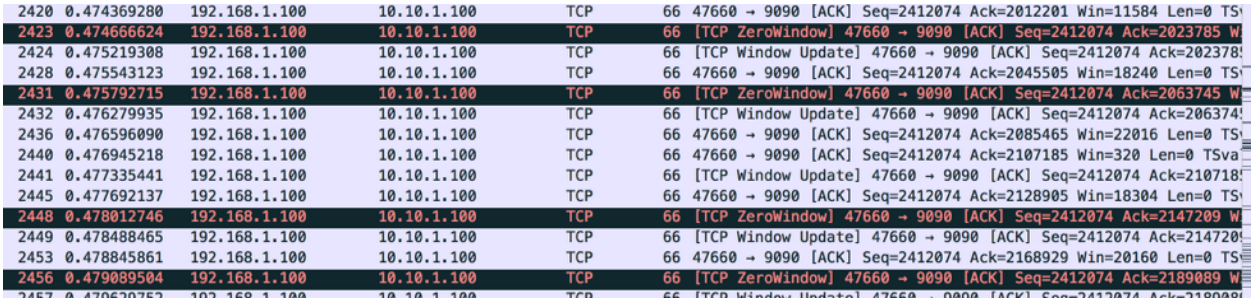
The total number of retransmitted packets at both sides are 116.

Q3:

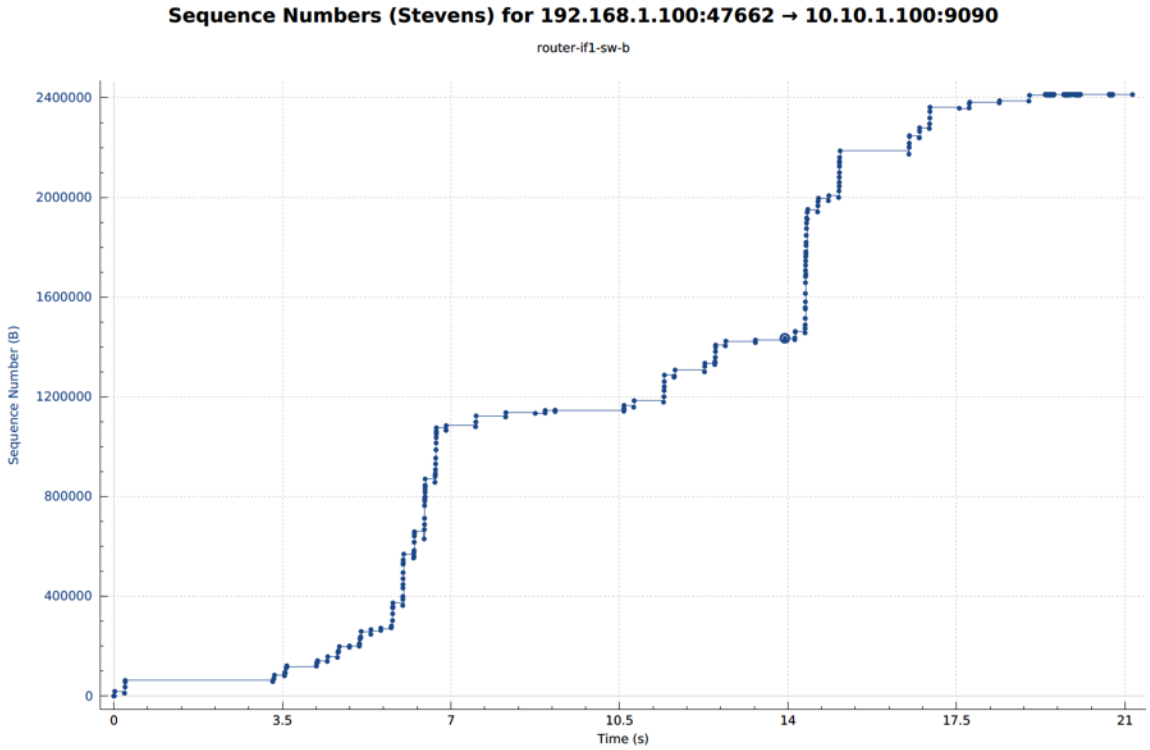
When there is no drop request, the TCP Stream Graph - Time Sequence Graph looks like this:



The TCP Stream starts at 0 and end almost around 6, which is almost the same as the time accounted by the program. Could see congestion control around 0.4 where there are duplicate ACKs at packet 1776. Flow control could bee seen at packet 2423 where the server's window size is 0



When there is no drop request, the TCP Stream Graph - Time Sequence Graph looks like this:



The TCP Stream starts at 0 and end almost around 21, which is almost the same as the time accounted by the program. It lasts for longer time because of retransmission of dropped packets. Also could see the retransmission packets, like from 0.2s to 3s, it is retransmitting, which could also been see from the captured retransmitted packets. Flow control and congestion control are same as previous one, so no explanation here.