Lab 4

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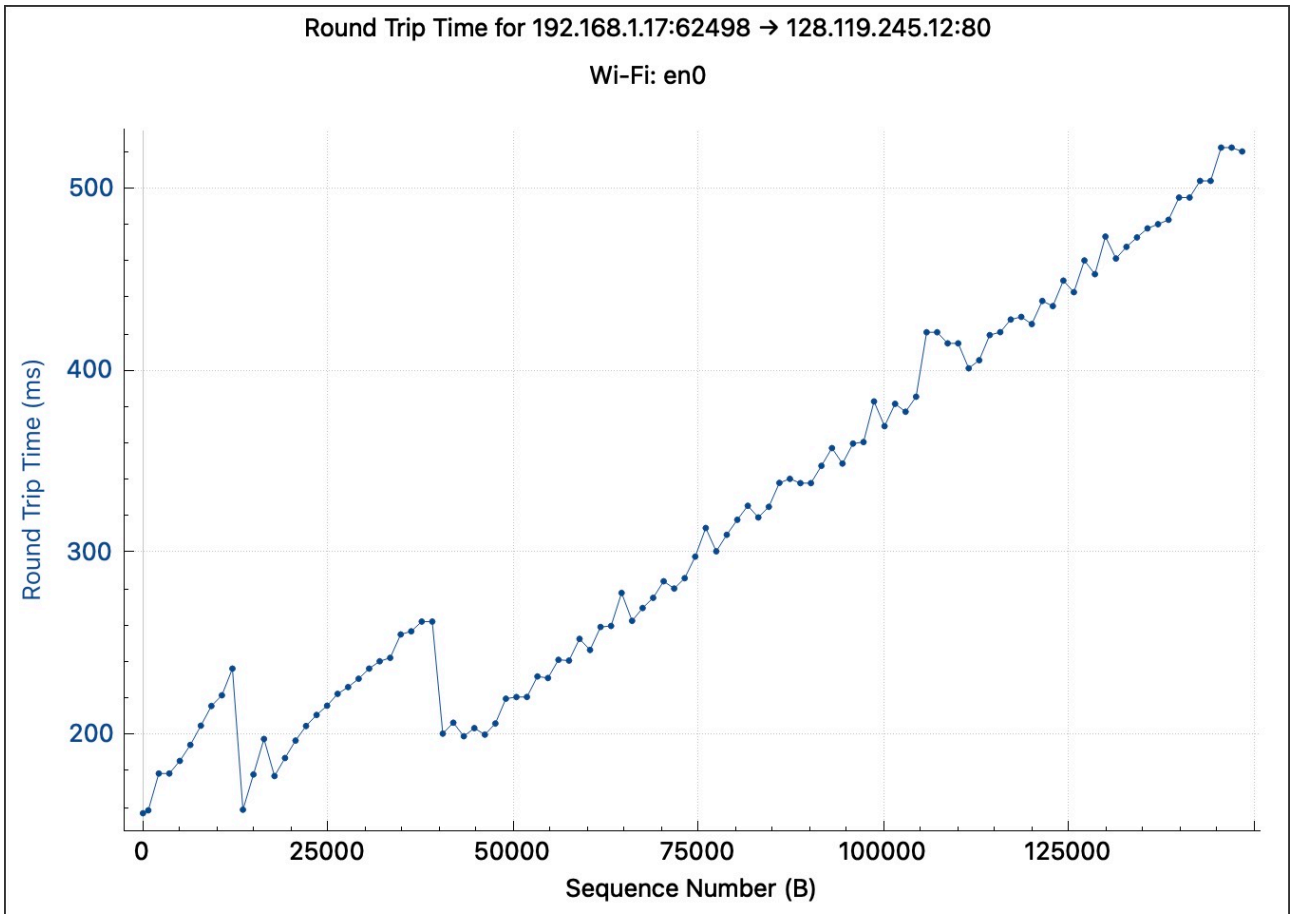
1. Client IP: 192.168.1.17, Client Port: 61745
2. gaia.cs.umass.edu IP: 128.119.245.12, gaia.cs.umass.edu Port: 80
3. Client IP: 192.168.1.17, Client Port: 61745
4. Seq Number = 0, Inside of the TCP Flags, the SYN flag is set (0000 0000 0010)
5. Seq Number = 0, TCP Flags, SYN Flag and ACK Flag are set (0000 0001 0010), and Acknowledge was done by the server after receiving the SYN request.
6. Seq Number = 1.
7. Seq and ACK of
   - First Segment: 1
   - Second Segment: 714
   - Third Segment: 2134
   - Fourth Segment: 3554
   - Fifth Segment: 4974
   - Sixth Segment: 6394

	RTT (seconds)	Estimated RTT (ms)
Segment 1	0.163738	155.551
Segment 2	0.156889	147.9407
Segment 3	0.158478	141.8608
Segment 4	0.178702	139.3729
Segment 5	0.178702	137.3204
Segment 6	0.185624	136.4923



8. Length of HTTP Post: 713 bytes
   The next 5 requests: 1420 bytes
9. The minimum buffer (window) size for the entire stack was at first 28,960 bytes and it keeps growing until reaching 262,272 bytes and it never throttles due to the inspecting of the trace.
10. There is a single retransmit in the trace which is another HTTP Post request
11. Some ACKs happen in a row which means segments acknowledge every other received segment and the size of the average acknowledge segment is 1420 bytes
12. Selecting two consecutive ACKs has the average of 1420 bytes sent in both with them taking RTT of around 140ms then the rate = 146,057 bits/second
13. Slow Start is from 0s to 0.45s and then it changes to congestion avoidance