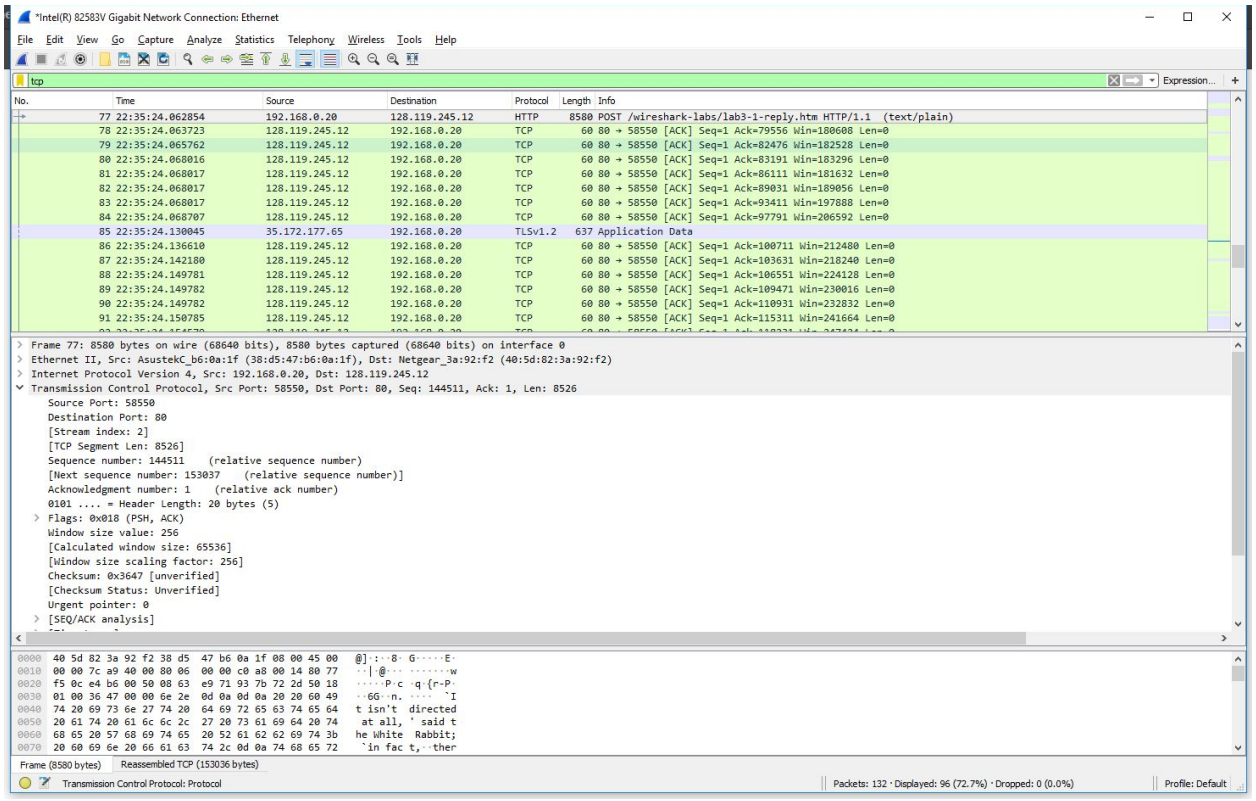


1.What is the IP address and TCP port number used by the client computer (source) that is transferring the file to gaia.cs.umass.edu? To answer this question, it's probably easiest to select an HTTP message and explore the details of the TCP packet used to carry this HTTP message, using the "details of the selected packet header window"(refer to Figure 2 in the "Getting Started with Wireshark"Lab if you're uncertain about the Wireshark windows.

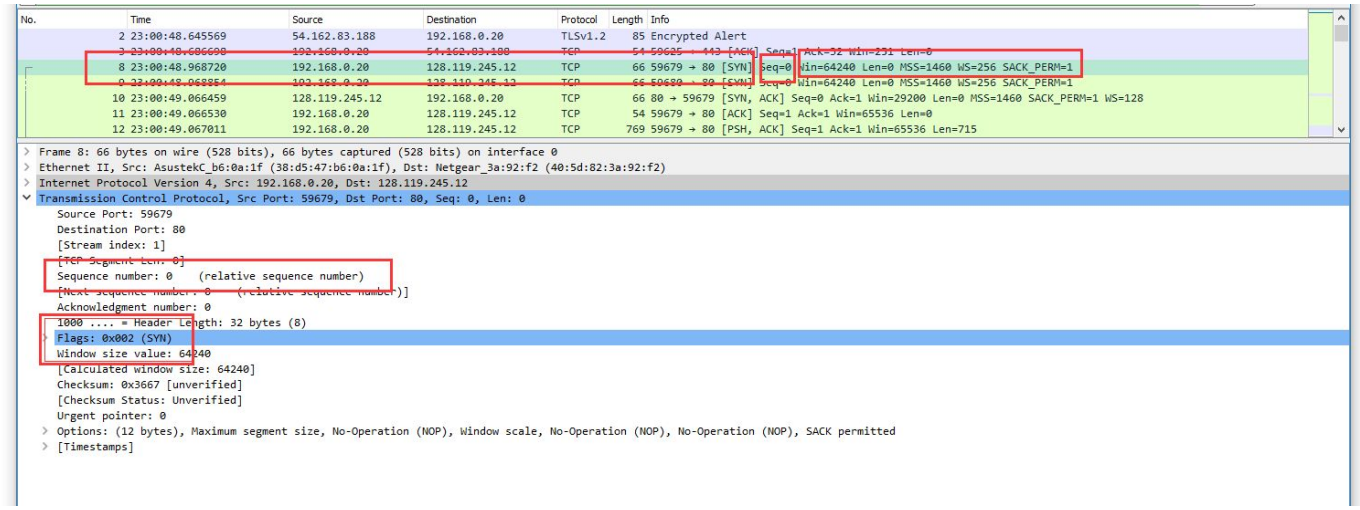
The source is 192.168.0.20 and the source port is 58550.

2.What is the IP address of gaia.cs.umass.edu? On what port number is it sending and receiving TCP segments for this connection?

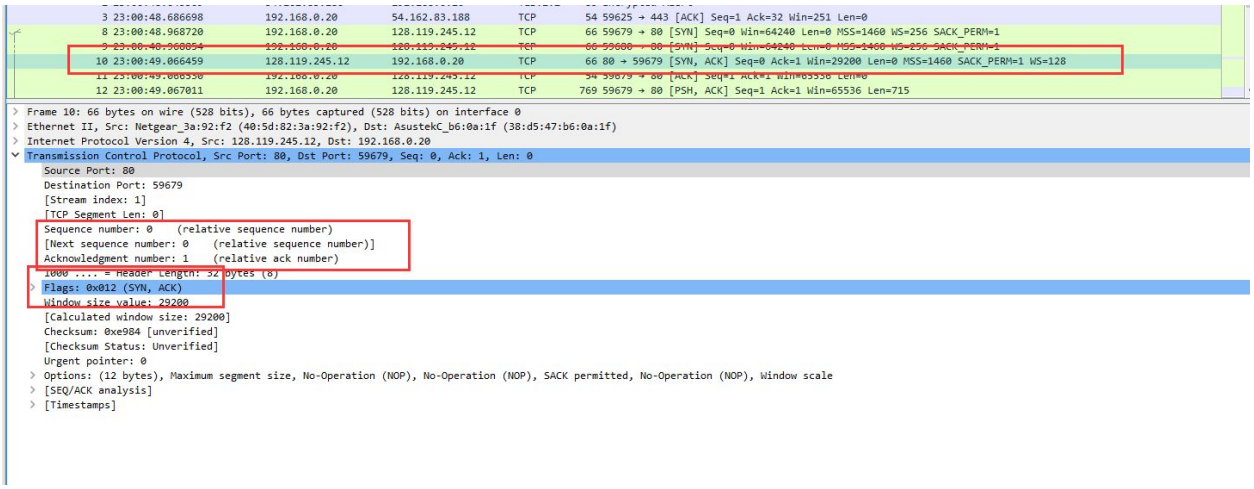
The destination 128.119.245.12 and destination port is 80.

3. What is the IP address and TCP port number used by your client computer (source) to transfer the file to gaia.cs.umass.edu?

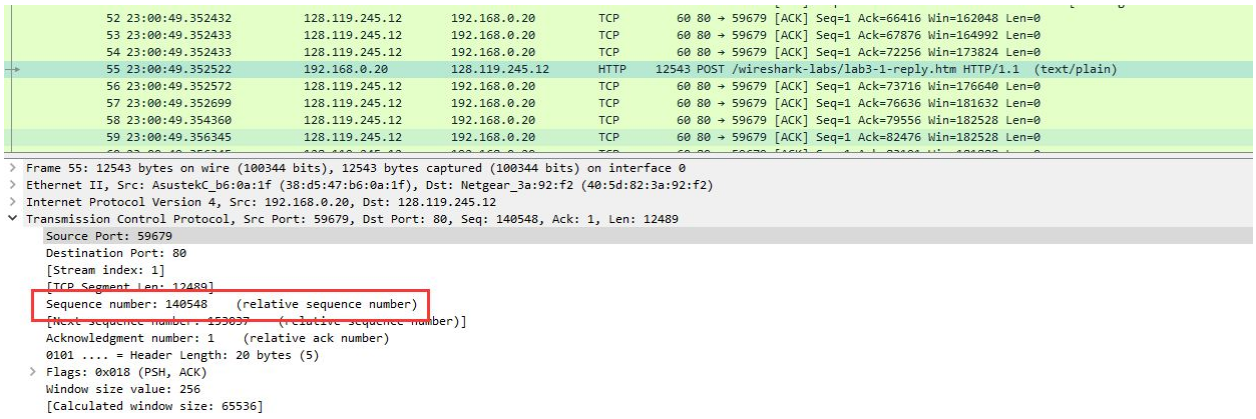
My IP address source is 192.168.0.20 sending on port 58550.



4.The sequence number of the TCP SYN segment is 0. We know is a SYN segment because it contains that SYN flag.

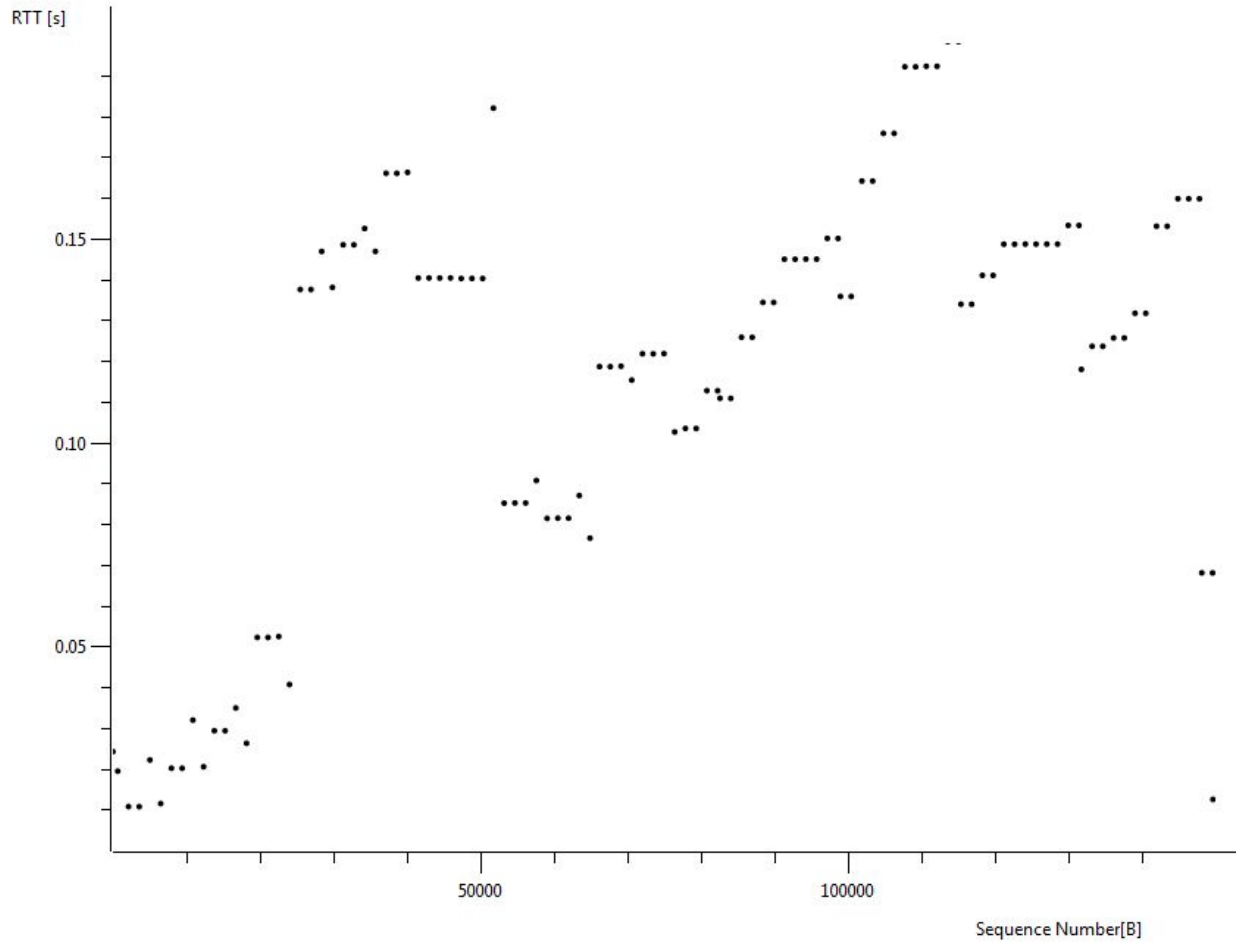


5. The sequence number is 0. Gaia server determines by doing initial sequence number plus one. The message carries flag to indicate to be a SYN ack message.



6. The sequence number for the HTTP POST command is 140548.

7.



8.The length of each of the first TCP segment is 708. The following segments are all 1514.

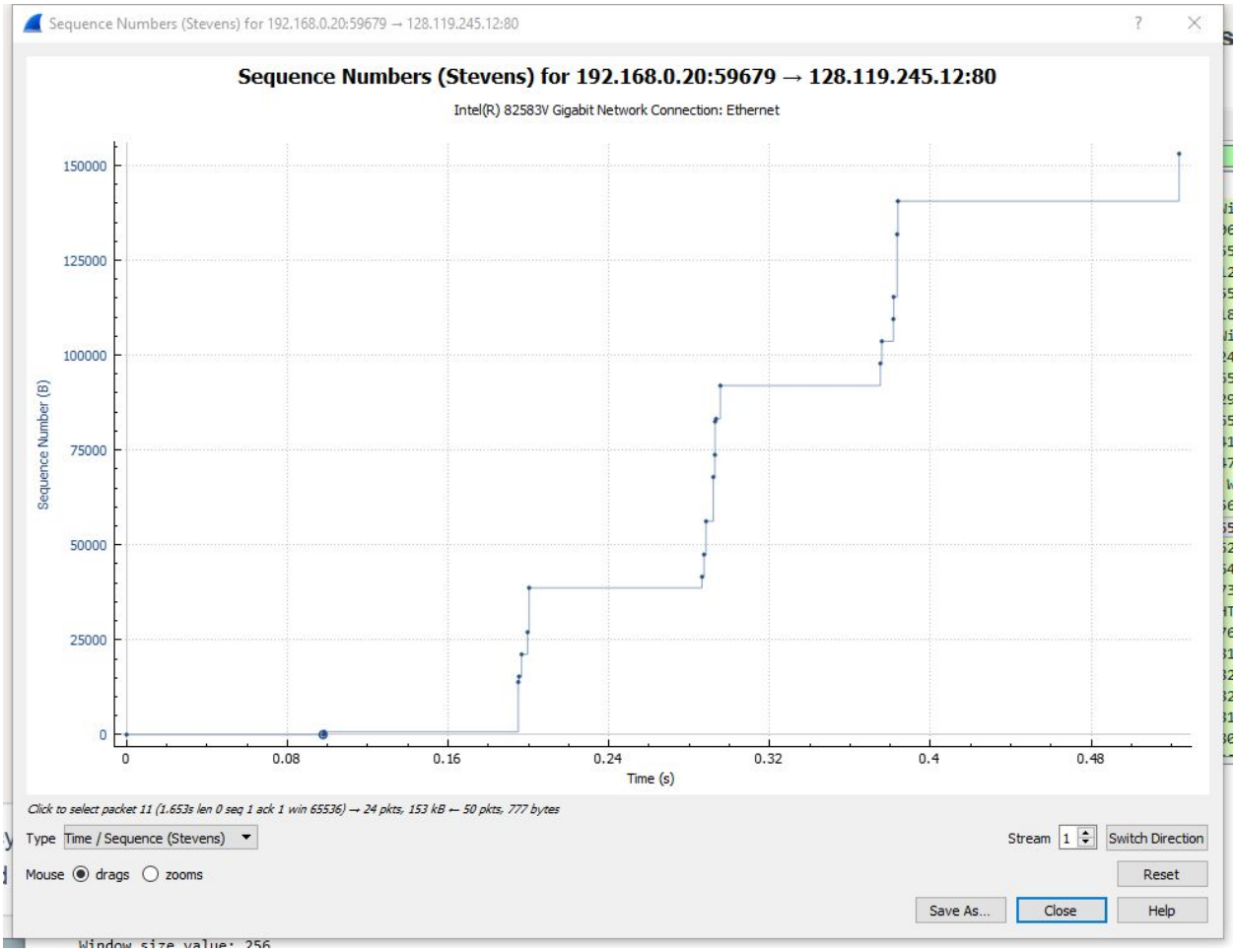
9. The minimum amount of available buffer space is listed as 65535. The sender is never throttled because we never reach full capacity of the window.

10. no segments needed to retransmitted. Old ACK was never resent in order to re-request former packets.

11. receiver usually acking 432 bits. Sometimes the receiver will acks every other segment. This is shown when more than one ack occurs in a row.

12. What is the throughput (bytes transferred per unit time) for the TCP connection? Explain how you calculated this value.

The throughput can be calculated by using the value of the last ack(148,221)- the first sequence number(1) divided by the time since first frame (1.4) = 105872.14 bps.



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CSC138
LAB3

13/14. Slow start begins around the 10,000 range and ends around half way between 25000-50000. Cognestion guidance takes over at around 37500.