

Plot Exercise Questions:

1. In Slow Start, we see the cwnd double with every transmission, as the cwnd increases by one with every packet that gets ACKed. In Congestion Avoidance, we see the cwnd increasing by only one each transmission because it takes all of the packets being ACKed to increase the cwnd by 1. ($cwnd += 1/cwnd$ for each ACK)
2. When the 3rd dup Ack is reached, cwnd and ssthresh values are changed to be half of what they were. Meaning $cwnd = cwnd / 2$ and $ssthresh = ssthresh / 2$. This can be observed at the dropping points in the graphs above.

What We Learned:

In this lab, we learned how to use geni to create a Server-Router-Client topology. We learned how to configure those 3 services so that we can generate the outputs shown in the report above. We also learned how to generate and use relevant data, as packets were sent across the network. Using the data generated, we were able to generate graphs that show cwnd and ssthresh values. Using these graphs we learned how to read/understand the graphs and pinpoint key points where periods of slow start and congestion avoidance occurred as well as where timeout may have occurred.