CSC 573 Project 2: Selective Repeat Request

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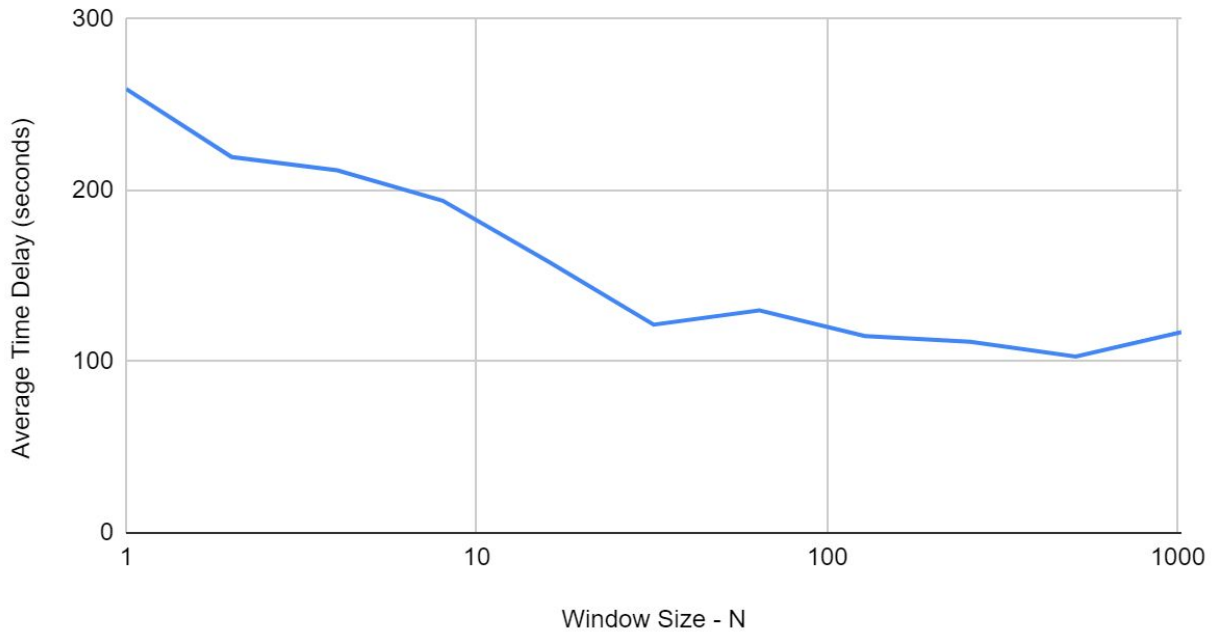
Note:
1. The Timeout timer value has been assumed to be 1 second for the following implementation.
2. Please refer to the instructions text file to run the code.
3. Selective Repeat Request does not have a cumulative acknowledgment that the GoBackN has. The following is the data observed with this change.

TASK 1: Effect of Window Size N

Task 1						
MSS = 500 bytes	p = 0.05					
N	Time Taken 1	Time Taken 2	Time Taken 3	Time Taken 4	Time Taken 5	Average
1	266.33623	252.31761	257.25794	262.96983	257.25794	259.22791
2	181.24633	222.31658	262.36467	213.1794	218.06415	219.434226
4	233.34895	202.29928	210.46992	205.19653	207.45783	211.754502
8	193.32818	195.16033	194.26295	192.29164	194.59467	193.927554
16	158.30904	159.21323	151.43385	164.1793	159.1513	158.457344
32	120.84659	123.92855	119.72489	119.54059	123.89556	121.587236
64	138.48203	127.39796	119.40302	136.2227	128.12628	129.926398
128	113.86492	113.73804	117.45609	112.62395	117.10001	114.956602
256	113.10607	111.16808	110.71476	112.23279	111.00179	111.644698
512	106.77944	100.63726	104.02001	102.00834	101.28574	102.946158
1024	131.8906	99.3613	123.47832	105.59463	125.87038	117.239046

Task 1: Effect of Window Size - N

Observation:

As can be observed from the graph, too small or too large of a window size will lead to a greater average time delay.

If the Window Size is small, then the packets are being transmitted very slowly. Hence, the delay is large. Hence, as we can see from the graph has the highest time delay value.

If the Window Size is large, then the packets that have been sent timeout easily, resulting in larger retransmissions.