**CSC 573 – Internet Protocols**

**Project #2 - Go-back-N automatic repeat request (ARQ)**

**Spring 2019**

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**Client**: GCP (35.224.182.21) – Asia Region

**Server**: GCP (35.200.166.250) – US East Region

**File size**: 1.2MB

**RTT**: 330ms

**Task 1: Effect of Window Size N**

For this first task, set the MSS to 500 bytes and the loss probability p = 0.05. Run the Go-back-N protocol to transfer the file you selected, and vary the value of the window size N = 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024. For each value of N, transmit the file 5 times, time the data transfer (i.e., delay), and compute the average delay over the five transmissions. Plot the average delay against N and submit the plot with your report. Explain how the value of N affects the delay and the shape of the curve.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Window Size N | 1 | 2 | 3 | 4 | 5 | avg |
| 1 | 0:11:21.118486 | 0:11:18.880092 | 0:11:38.760394 |  |  |  |
| 2 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |
| 16 |  |  |  |  |  |  |
| 32 |  |  |  |  |  |  |
| 64 |  |  |  |  |  |  |
| 128 |  |  |  |  |  |  |
| 256 |  |  |  |  |  |  |
| 512 |  |  |  |  |  |  |
| 1024 |  |  |  |  |  |  |