CS252

190050023

March 21, 2021

1.2

1

7739.2Kbps

2

$RTT = 2 \times delay = 2 \times 10ms = 20ms = 0.02s$
Throughput in Bytes per second = $7739.2 \times 1024/8 = 990617.6Bps$
$WindowSize = RTT \times Throughput = 0.02\times = 19812B$

3

$19300B$

4

Raw data rate = 8Mbps = 8192Kbps which is a little greater than maximum observed throughput.

5

Delay(ms)	Maximum Observed Throughput(Kbps)	Theoretical Window Size(B)	Minimum Window Size(B)
14	7720.52	27670	26800
12	7729.86	23746	23050
10	7739.2	19812	19300
8	7748.55	15870	16080
6	7757.89	11916	12340

1.3

1

Parameters	Flow1	Flow2	Flow3
CBRdataRate	448 Kbps	896 Kbps	1792 Kbps
Observed Throughput	491.296 Kbps	921.748 Kbps	1842.65 Kbps

2

7768.12Kbps

3

7768.12Kbps is slightly less than raw data rate 8192Kbps