GBN_Protocol

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1 Observations :

When we set timeout to 2*RTT average some of the timeouts occur before the ack is received so the actual re transmission ratio and drop probability is observed more than expected. Not only that but if we have to re transmit we re treansmit the entire window so the observed re transmission ratio is higher than expected.

Testing using parameters: PACKET_LENGTH = 512 bytes
PACKET_GENERATION_RATE = 10 packers per second
MAX _PACKETS = 400
WINDOW _SIZE = 3
MAX _BUFFER_SIZE = 10

Final Values : Packet Rate = 10,
Drop Probability 0.05200000,
Length = 512,
Retransmission Ratio = 1.381818,
Average Round Trip Time = 0.155

2 Drop Probability and packet length changes

Packet drop probability : 0.0001

packetLength	RetransmissionRatio	Average RTT
128 B	1.117	0.157
1024 B	1.317	0.186

Packet drop probability : 0.00000001

packetLength	RetransmissionRatio	Average RTT
128 B	1.017	0.114
1024 B	1.057	0.128