Answers

1. Task 1:

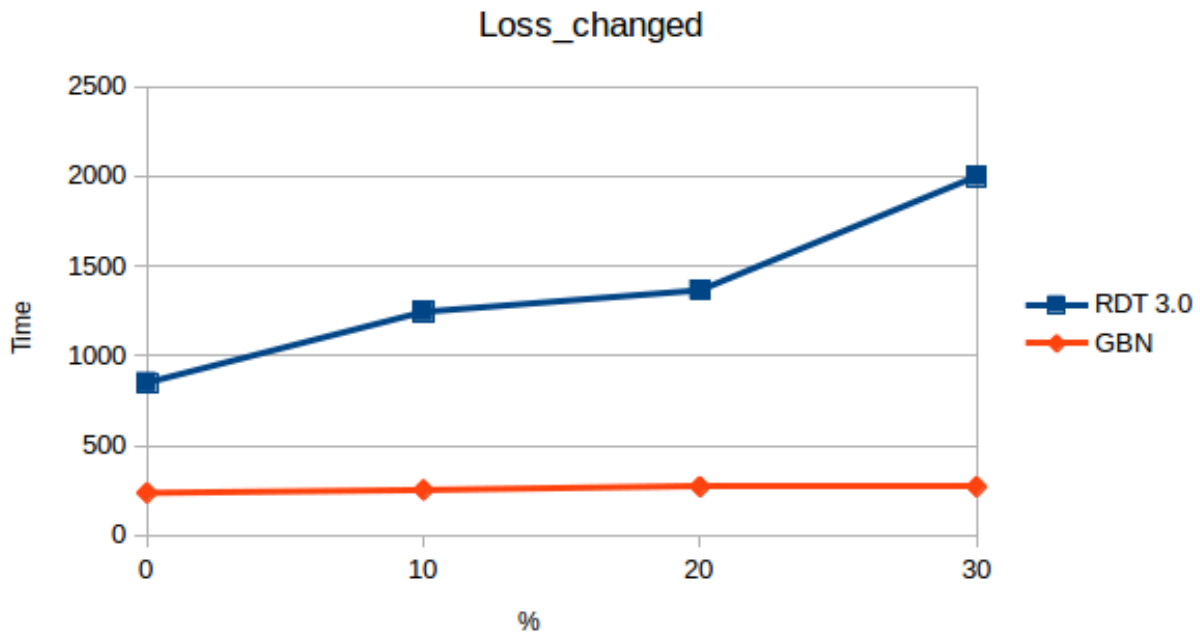
   The data is distorted when we set the delayProb = 30, lossProb = 20, and seqNSpaceSize = 2. And the reason is because of the limitation of rdt 3.0. The sequence number is too small so that when we have file that would delay, the sender would get acknowledgement that for the wrong packet that would have the same sequence number.

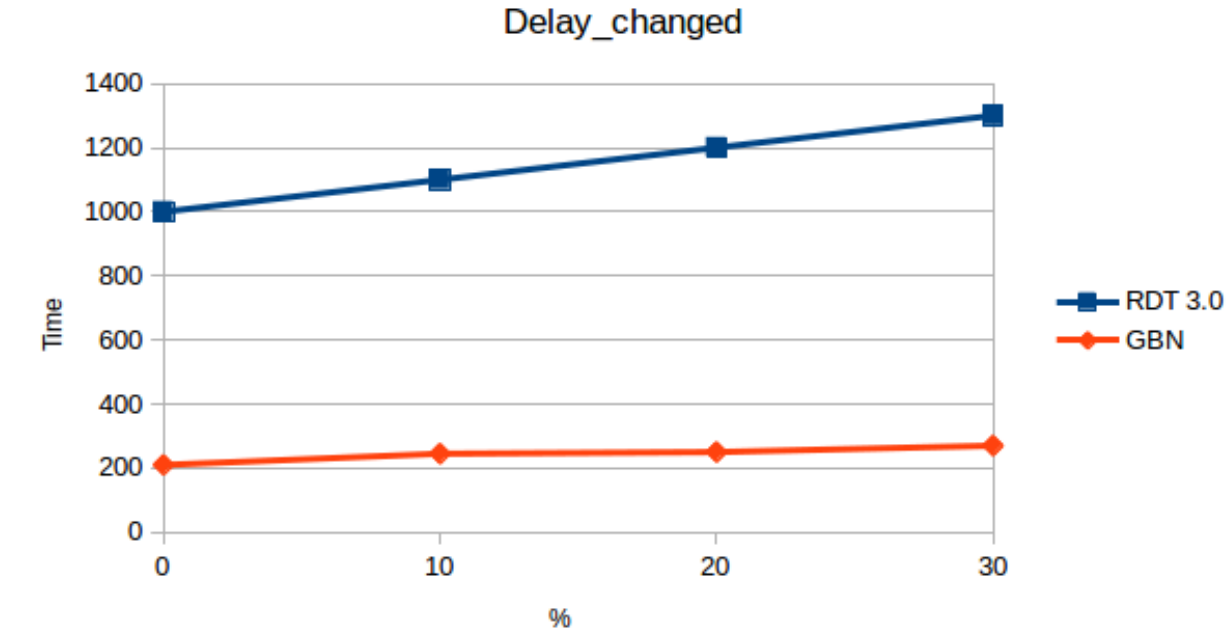
2. Task 2:

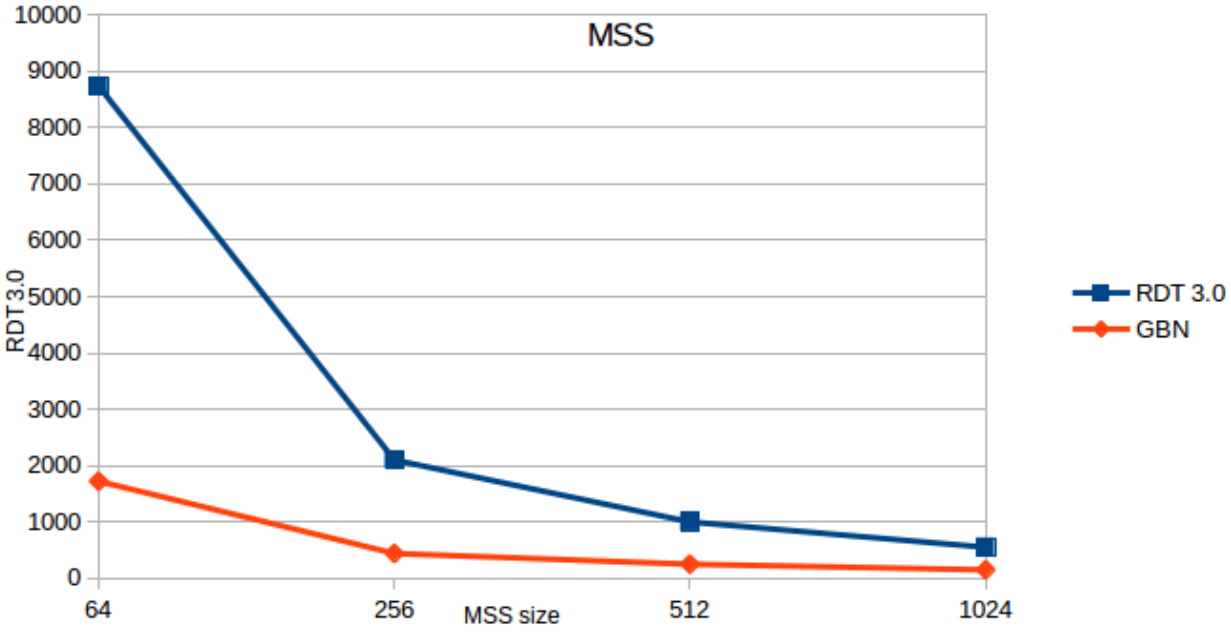
   Yes. If you make the sequence number bigger, it reduce the chance that different packets would have the same sequence number when one of them is delay and the other one already send a acknowledgement.

3. Task 3: Used your work

4. Task 4







As the data shown above, GBN preforms better compare to RDT 3.0. For the Loss and the Delay changes, GBN is not only the better choice, but also a more stable choice to use for the network protocal. For MSS, GBN shows a better output also that the time eventally drop to 150 at the end. Also, when we increase the loss and Delay percentages above 20%, the RDT 3.0 start having chance that would have packets transfer issues which never happend in GBN.