

Computer Networks

Lab 5 Assignment

Task 1: Implement the Go-Back-N ARQ (network = "layerNetworkGBN")

- 1) Implement following functionality in the behavioural design of data-link layer (named "dl_layer_GBN") of nodes

(Hint: use *vector* (<http://www.cplusplus.com/reference/vector/vector/>) data-structure to define sliding window)

- a. 10% frame loss
 - b. Propagation delay 'Dp' (value to be specified in omnetpp.ini file)
 - c. Processing delay 'Dpr' (value to be specified in omnetpp.ini file)
 - d. Window size 'k' (value to be specified in omnetpp.ini file)
 - e. Send in-order 26 packets, each packet contains a single English alphabet (A-Z)
- 2) Collect data for performance parameters
 - a. Number of packets sent
 - b. Delay of each packet
 - c. RTT
- 3) Visualize (plot) following parameter (with min, max, and average information)
 - a. Delay of packets
 - b. RTT