Example for Simulator Specification

Note: This is not used for final check, instead it is to help you better understand our requirement.

Input:

- Network topology
  - The network topology is given in Figure 1. R1 – R4 are routers, L1 – L3 are links, S1 – S3 are source hosts, and T1 – T3 are destination hosts, respectively.
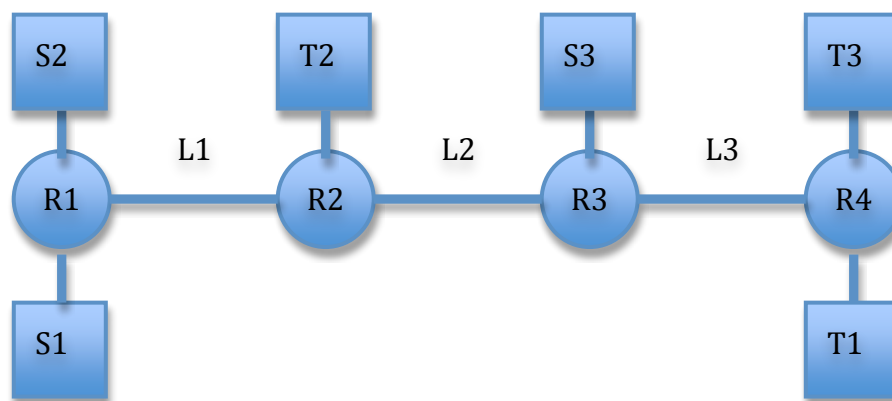

Figure 1 Network graph

  - Link capacity: all are 10Mbps
  - Propagation delay: all are 10ms
  - Buffer size: all are 128KB
- Flows
  - Flow i: Si -> Ti, i=1,2,3
  - Total number of bits:
    - Flow 1: 10MB
    - Flow 2: 5MB
    - Flow 3: 5MB
  - Start time:
    - Flow 1: 0s
    - Flow 2: 2s
    - Flow 3: 4s
  - Congestion control algorithm: Delay-based algorithm, e.g. Vegas or FAST. Note you should implement at least two congestion control algorithms, one is AIMD (Reno) and the other one can be FAST TCP.
- A set of links where buffer occupancies, packet losses, and link flow rates will be measured: all three links.
- A set of flows where the sending and receiving rates (throughputs), and packet delays will be measured: all three flows.