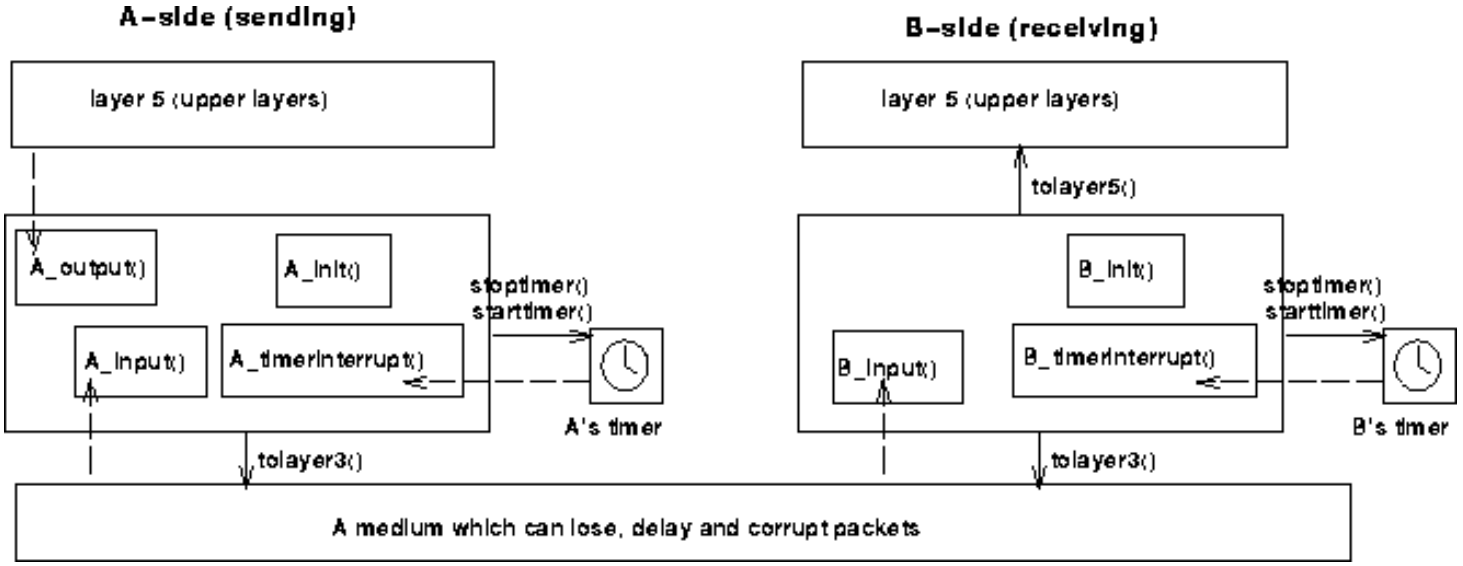
Programming Assignment

Spring 2023

Computer Networks

Programming Assignment

- Implementing a Reliable Transport Protocol (Bidirectional selective repeat version)
  - Problem description: ProgAssn.pdf
  - Due 5/19 23:59:59 (late submission allowed up to 3 days with 10 pts reduction per day)
  - Upload your source file (w/ proper comments) and a design document to KLAS



Implementing Bidirectional SR

- To write an application-level code simulating Bidirectional selective repeat (SR) protocol
- Your code will have to execute in a simulated hardware/software environment
  - Event-driven simulation
    - Events occur at times determined stochastically by sim. env.
  - e.g. Programming interface from above and from below
  - e.g. Stopping/starting of timers
    - timer interrupts will cause your timer handling routine to be activated
- 8-bit or 16-bit 1's complement checksum operation with bit-wise addition operation is optional (for Extra Credit of 10 pts)
  - Decimal addition ('+') will not receive E.C.
- Piggybacking is required