

## Project 2: Grading scheme

### **\*Correctness and meeting various milestones: 20**

#### **\*Design: 35**

- a. To get a score of 35, we expect a very strong effort at optimizations including both cumulative and selective ACKs, adjusting timeout properly, implementing a “sliding” window (rather than just waiting for a window to be fully transmitted before the next window is sent).
- b. We expect trade-offs to be documented well. It is very important that you must have considered different versions of the algorithm, and shown results with and without different features.
- c. Several students implemented only a cumulative, or only selective ACK scheme. This will usually result in points being deducted.
- d. If a NACK scheme is implemented, one issue is just transmitting a window at a time (the first transmission sends the entire window, but the next transmission only sends a small # of packets for which a NACK is sent) - this can hurt performance.

#### **\*Performance: 35**

- a. Here we consider performance using the Grade Server under
  - a. 0% loss and 0% rebuffering;
  - b. 2% loss and 2% rebuffering;
  - c. numbers in your report for large file transfer.
- b. We used our internal implementation as a baseline. Its results were:

		Throughput (Bytes/s)	Overhead (Bytes)
0% loss/reorder	Small file	141904.75	406
2% loss/reorder	Small file	66392.89	1403
2% loss/reorder	Large file	70640.18	12200

- c. We also looked at the overall distribution of performance numbers reported by all students in the class, and looked for “clear differences” in performance.
- d. We made allowances that some implementations may have made slightly different tradeoffs - e.g., some of your implementations may have higher throughput than us, but higher overhead as well. We would then look at the relative improvement in throughput, as well as the increase in overhead, and decide on whether we thought the trade-off was in a reasonable range.

#### **\*Variability and sensitivity results must be shown. 10**

It is important your report documents clearly the variability in performance, and sensitivity to different conditions

#### **\*Other factors:**

Report quality is important and is viewed as an indicator of effort. For instance, it should be very clear what configuration you are reporting on. Graphs should be clear and legible. These are subjective factors that may impact your grade.