README - P2MP

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There are 6 files – Client (Sender) and 5 Server (Receiver)

Receiver should have text file with name file.txt

Client (Sender) inputs:

1. Server1 to Server5 IP Address
2. Server Port number
3. Filename
4. MSS value

Assumption – timeout value – 0.05 seconds

--- 2 MB dummy.txt file to transfer

Packet builder function – This function divides the file in to chunks and add checksum, sequence number, data identifier and data to send to server. After successful transmission of packet, next chunk build and send by the rdt send function.

Checksum function – Checksum function receives the data packet to be sent to servers and calculate the checksum and return the checksum value back to packet builder function.

rdt\_send function – rdt send function being called by the packet builder to send the build packet to receiver. It also waits for the acknowledgement and start the timeout. If ACK doesn’t received with in the time frame (0.05 secs), rdt resend the packet to server.

Timer Expiry function – Timer expiry function runs the clock and set the flag as timeout which being used by rdt\_send function to decide for retransmission of the same packet.

As we have programmed code to run on same machine, we have differentiated using port number and used 127.0.0.1 as Server’s IP. Servers to listen on different port from 7735, 7736, 7737, 7738, 7739.

Client Output:

Timeout, sequence number X

Server (Receiver) Inputs:

1. Port Number
2. Filename
3. Probability

A random number generator function has been used.

checksum\_cal function- once Server receives the packet, it separates the data from the packet, data identifier, sequence number and checksum. It computes the checksum and compare with the received checksum also check for the sequence number of the packet. Based on that it sends the acknowledgement.

Server Output:

Packet loss, sequence number Y