Dhruv Aggarwal
7163546

CS 176A: Acronym Dictionary

Chapter 3: Define each of these acronyms and indicate what phrase the acronym represents.

- ACK - Acknowledged
    - Receiver communicates this message to the sender to reassure them that the packets were received properly
- NAK - NOT Acknowledged
    - Receiver communicates this message to let the sender know that packets were NOT received properly
- GBN - Go-Back-N: Sender extended FSM (Finite State Machine)
    - Sender transmits up to N un-ACK-ed packets, and receiver gives a cumulative ACK message for the last (N) packets
    - If there is a timeout, sender resends packets starting at N and going up in the sending window
- SR - Selective Repeat
    - Receiver acknowledges ALL correctly received packets and does not cumulatively acknowledge groups. Sender will repeat any packets where ACK was not given. Sender sends packets in groups, waits for acknowledgement and repeats if needed and then keeps going
- MSS - Maximum Segment Size
    - The largest amount of data that a single TCP packet can carry. This is determined during the TCP handshake
- MTU - Maximum Transmission Unit
    - The largest size a data packet can be transmitted at over a network, including headers, the payload/body, etc
- EWMA - Exponentially Weighted Moving Average
    - Used for calculating a smooth average of a series of data points where the most recent points are weighted more heavily than older ones
- AIMD - Additive Increase Multiplicative Decrease
    - A congestion control algorithm that increments the congestion window by a small amount when the network has bandwidth to support it. It also does the opposite when the network is highly congested to help with efficient network usage.