Lecture 6 - TCP (Part 1)

Overview

Finally, we made it and are going to be getting to the "good" stuff in networking, looking at the guts of how TCP works, covering the underlying fundamentals for TCP including the three-way handshake, sequence numbers, ACK numbers, RTT estimation, and timeouts.

Readings - Lecture 6

- Continue to read Chapter 3 in the book

Handouts

- This Overview

Key Points - In-Class - Lecture 6

- Compare / contrast: Stop and wait, Go Back N, Selective Repeat
- What does TCP stand for?
- What are the key properties of TCP?
- What is a segment? MSS? Why does it matter?
- What is the 3-way handshake for TCP? Why is it 3-way?
- Define / compare: RTT, RTO, Smoothed RTT.
- What is TCP Fast Retransmit?
- What is flow control and why does it matter?

Looking Ahead

- Next Monday - Transport Layer - Part 2 - TCP (Congestion Control)
    - Same reading
- Next Monday
    - Overview of Coding Project 1
    - Start discussing socket programming (TCP)

Upcoming Deadlines

- This Sunday (9/14) - Homework 2