

CS 118 Spring 2014

Chpt 3 - Section 3C

Chapter 3 outline

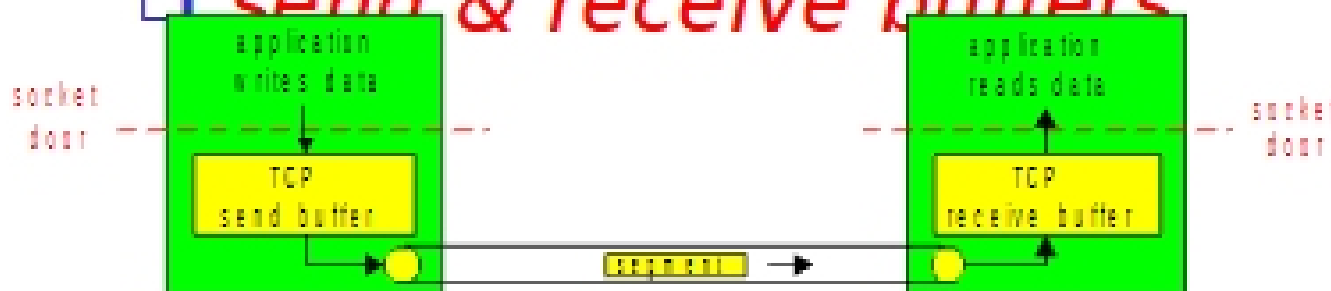
- ❑ 3.1 Transport-layer services
- ❑ 3.2 Multiplexing and demultiplexing
- ❑ 3.3 Connectionless transport: UDP
- ❑ 3.4 Principles of reliable data transfer
- ❑ 3.5 Connection-oriented transport: TCP
 - segment structure
 - reliable data transfer
 - flow control
 - connection management
- ❑ 3.6 Principles of congestion control
- ❑ 3.7 TCP congestion control

TCP: Overview

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RFCs: 793, 1122, 1323, 2018,

- ❑ **point-to-point:**
 - one sender, one receiver
- ❑ **reliable, in-order *byte stream*:**
 - no "message boundaries"
- ❑ **pipelined:**
 - TCP congestion and flow control set window size
- ❑ ***send & receive buffers***



- ❑ **full duplex data:**
 - bi-directional data flow in same connection
 - MSS: maximum segment size
- ❑ **connection-oriented:**
 - handshaking (exchange of control msgs) init's sender, receiver state before data exchange
- ❑ **flow controlled:**
 - sender will not overwhelm receiver