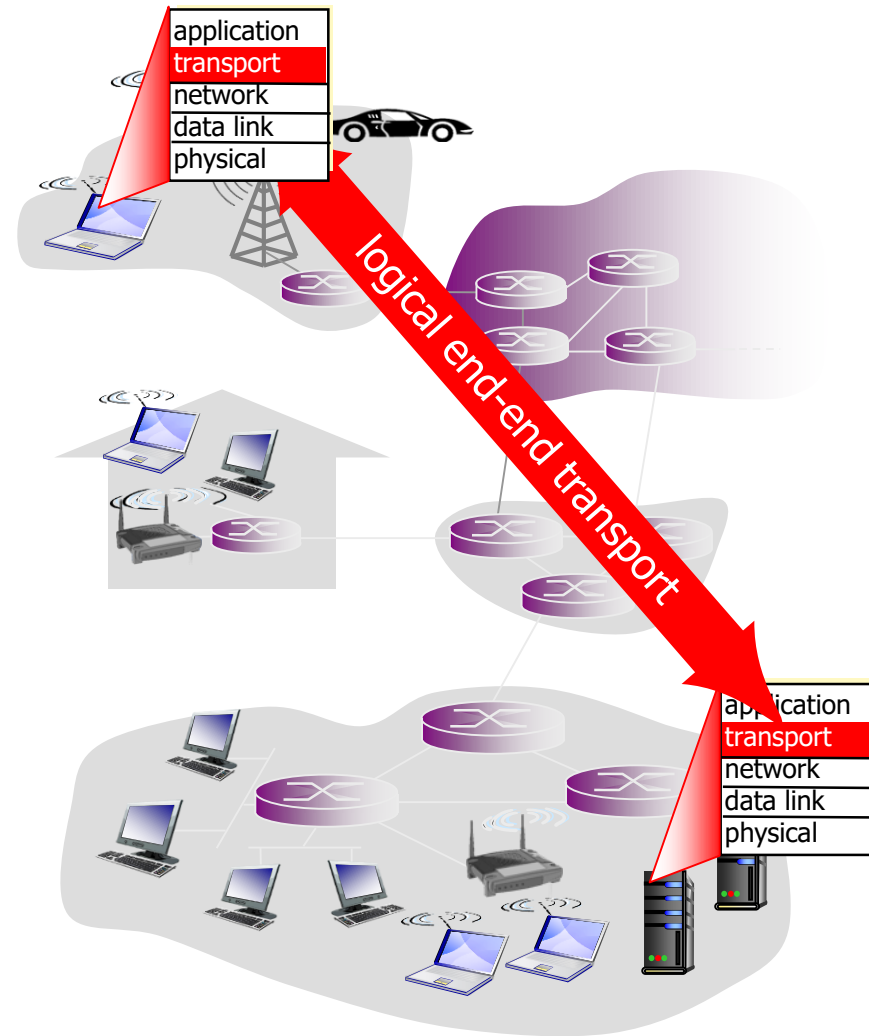


Transport Layer

Peler Levinsky, Roskilde IT

31.01.2025

Transport level

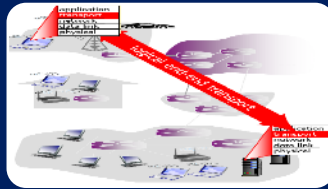


Protokollstakken



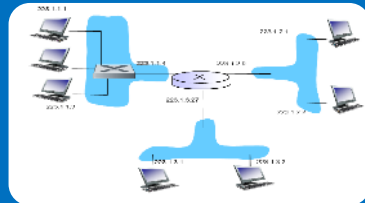
Application

- Web (HTTP/HTTPS), Email, DNS, DHCP, FTP, ...



Transport

- TCP - reliable, connection oriented
- UDP - unreliable, connectionless



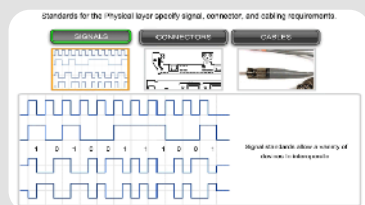
Network

- IP - IP-packets, unreliable
- IP-addresses



Datalink

- All kind of access - Wifi, Bluetooth, Ethernet, ...
- MAC-addresses



Physical

- Connectors
- Bit encoding/decoding

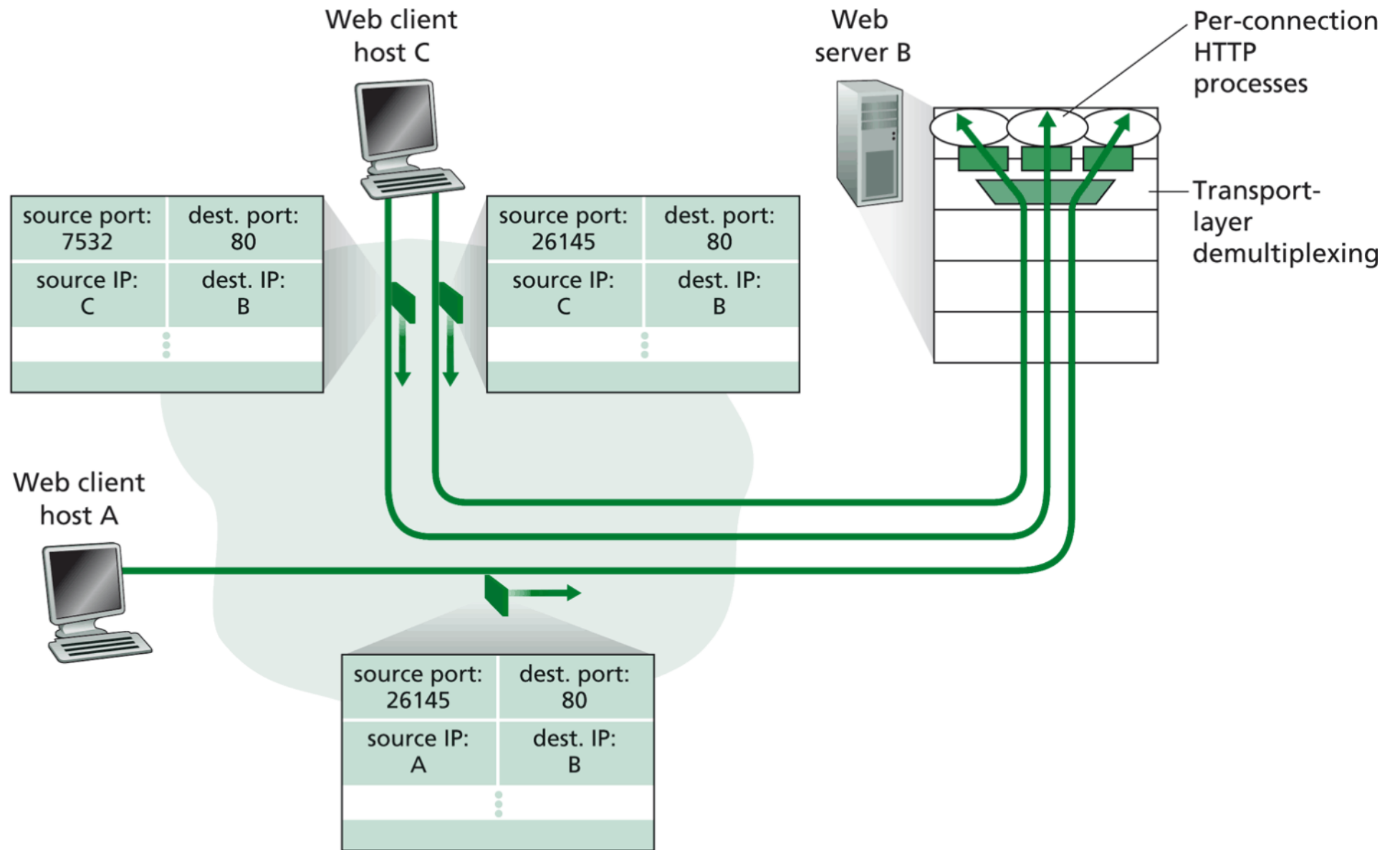
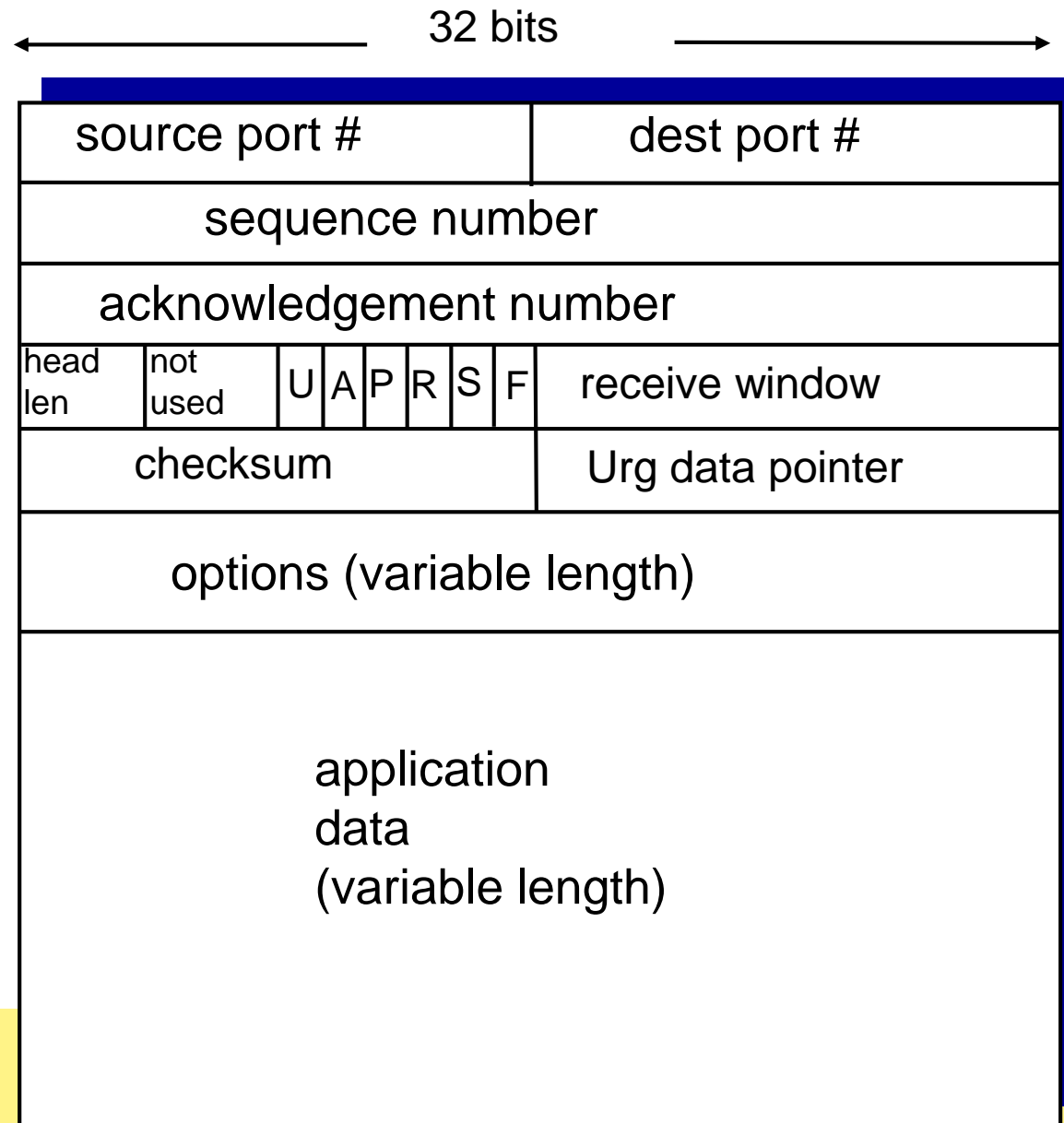
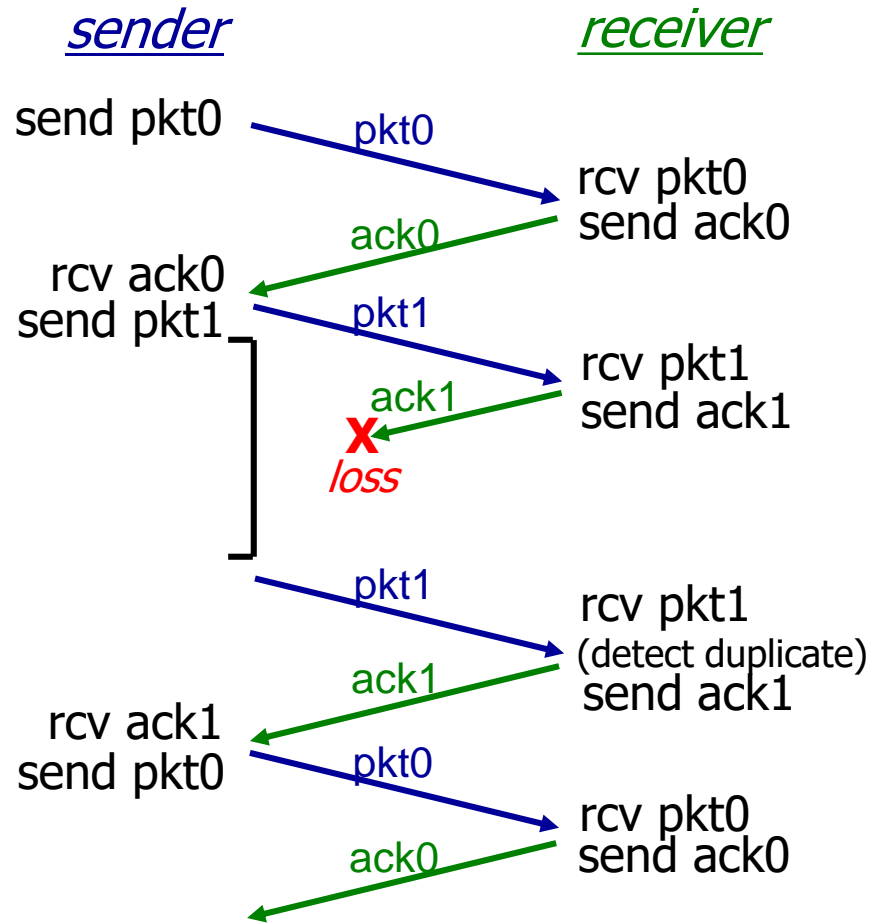


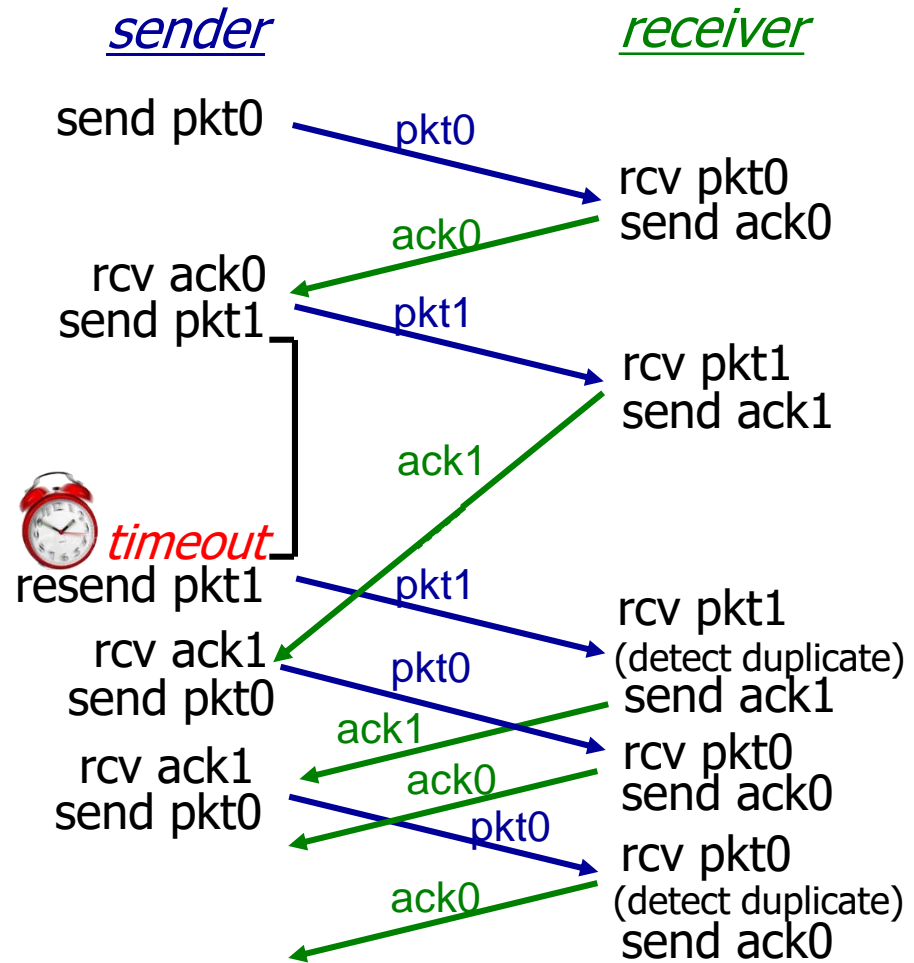
Figure 3.5 ♦ Two clients, using the same destination port number (80) to communicate with the same Web server application

TCP segment structure (TCP Header)



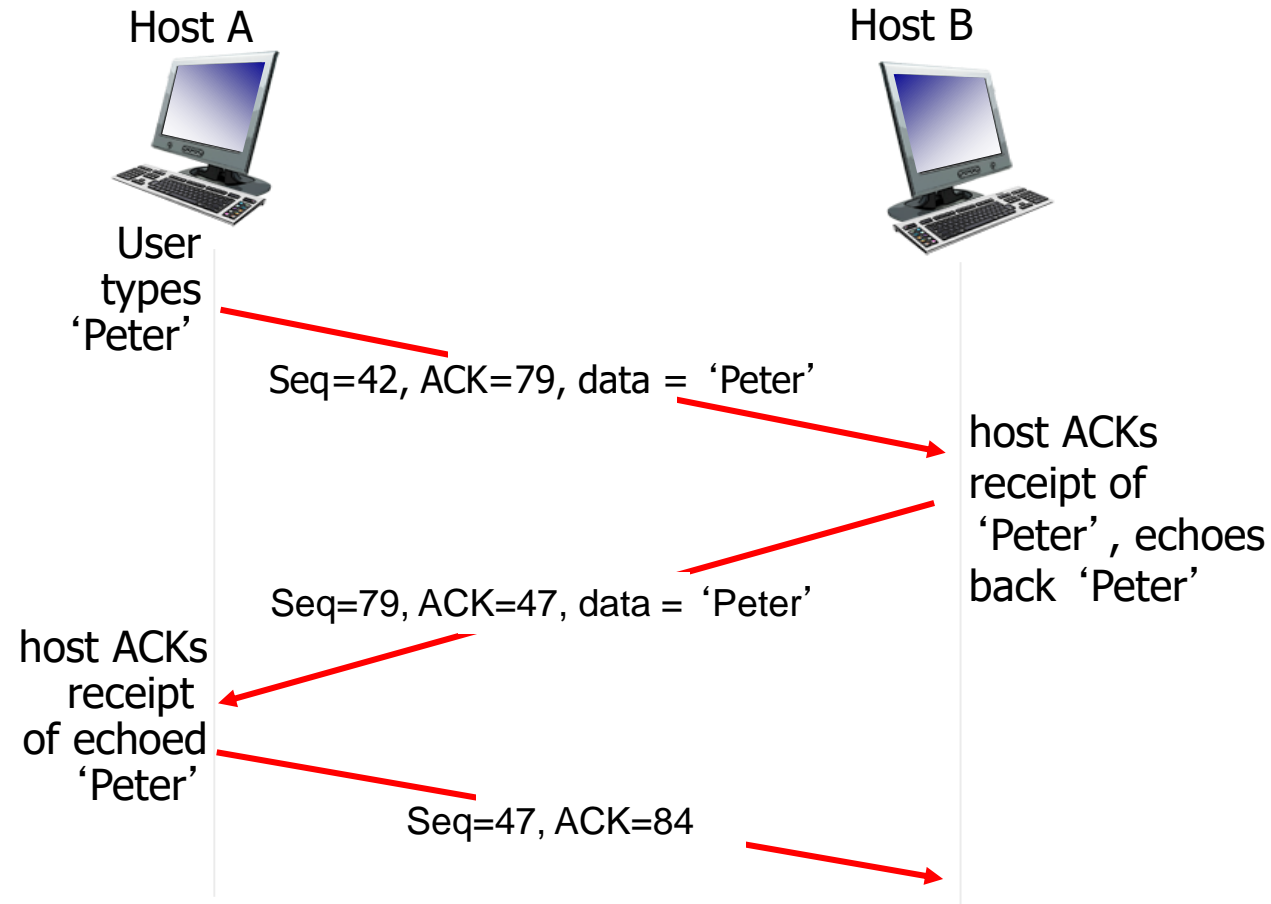


(c) ACK loss



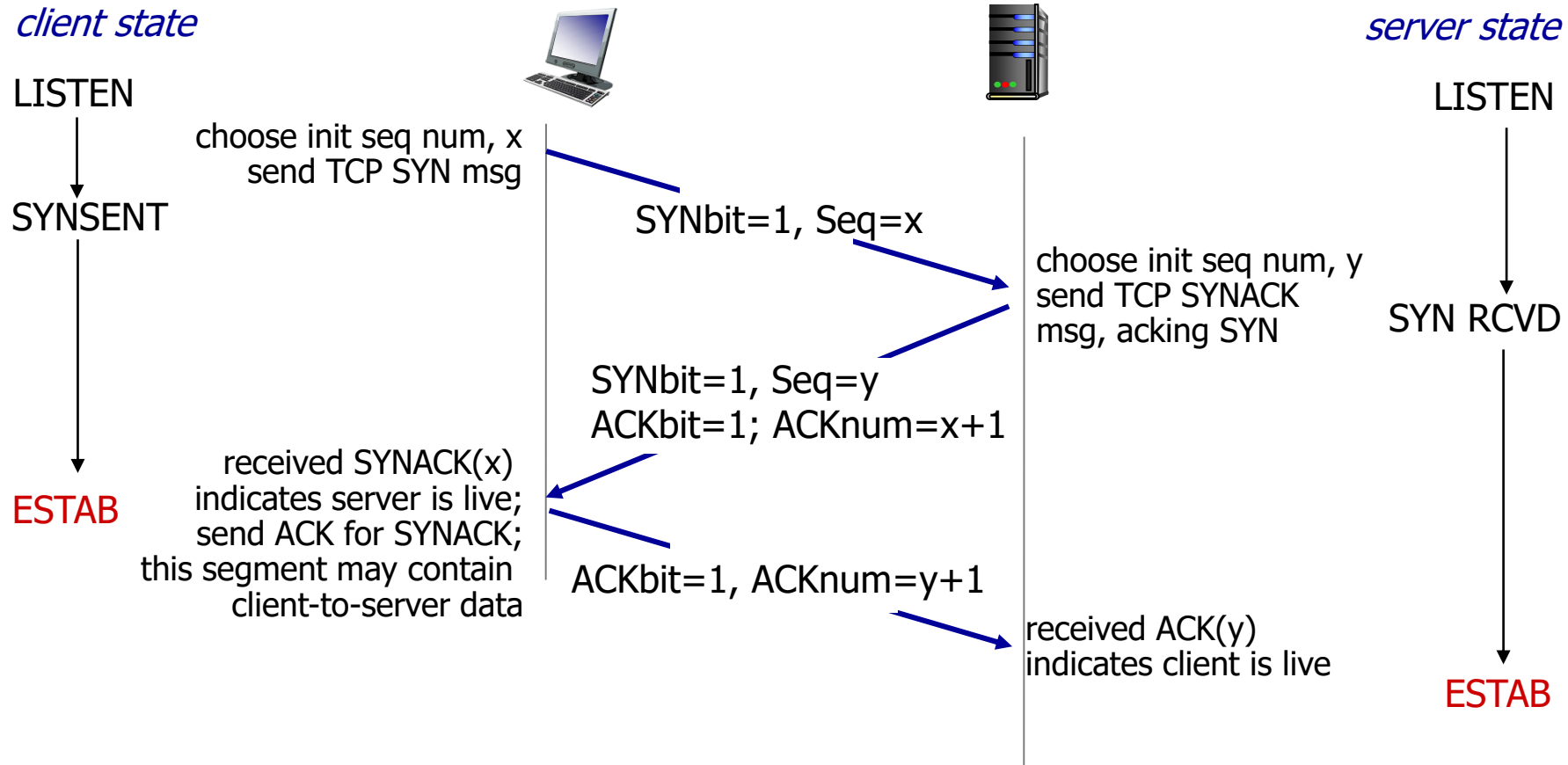
(d) premature timeout/ delayed ACK

TCP seq. numbers, ACKs



simple telnet scenario

TCP 3-way handshake



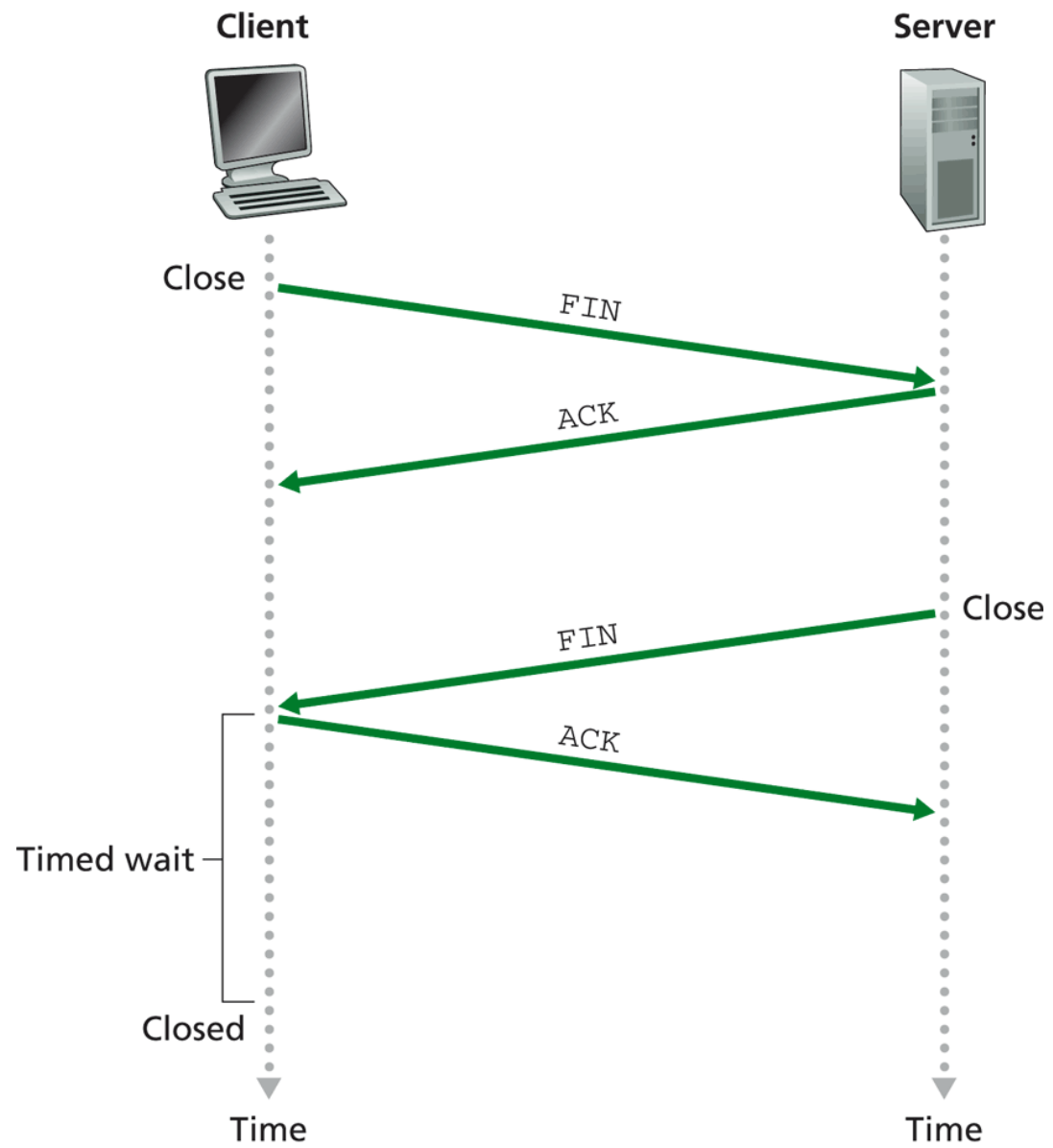
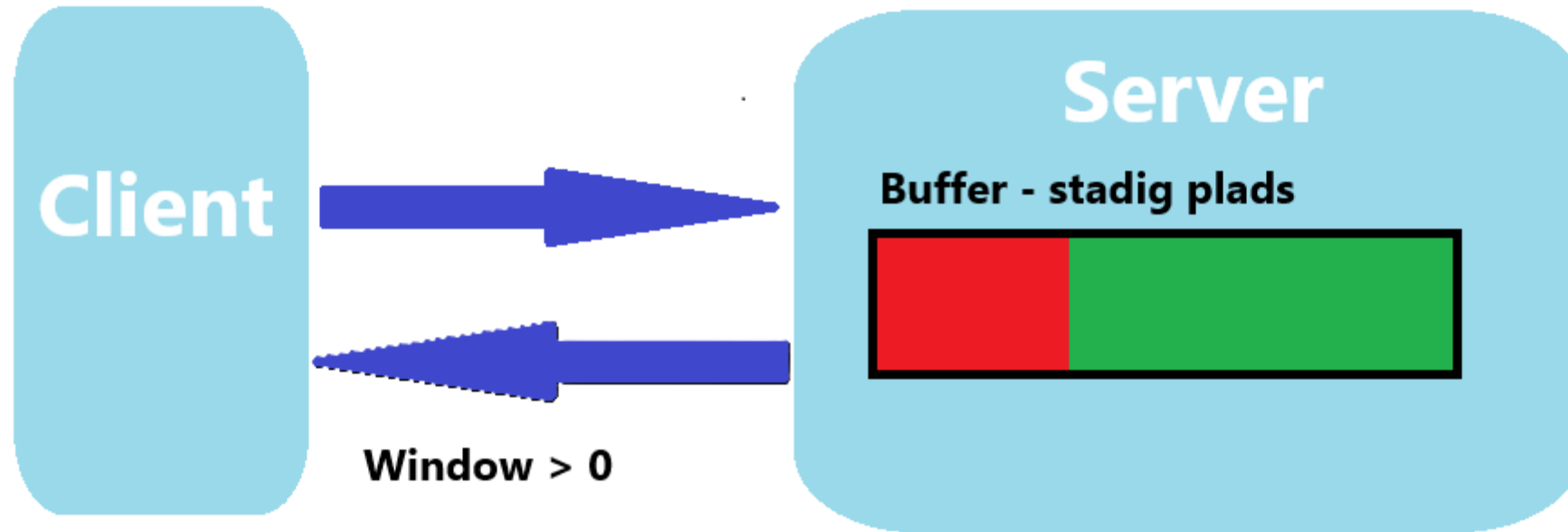
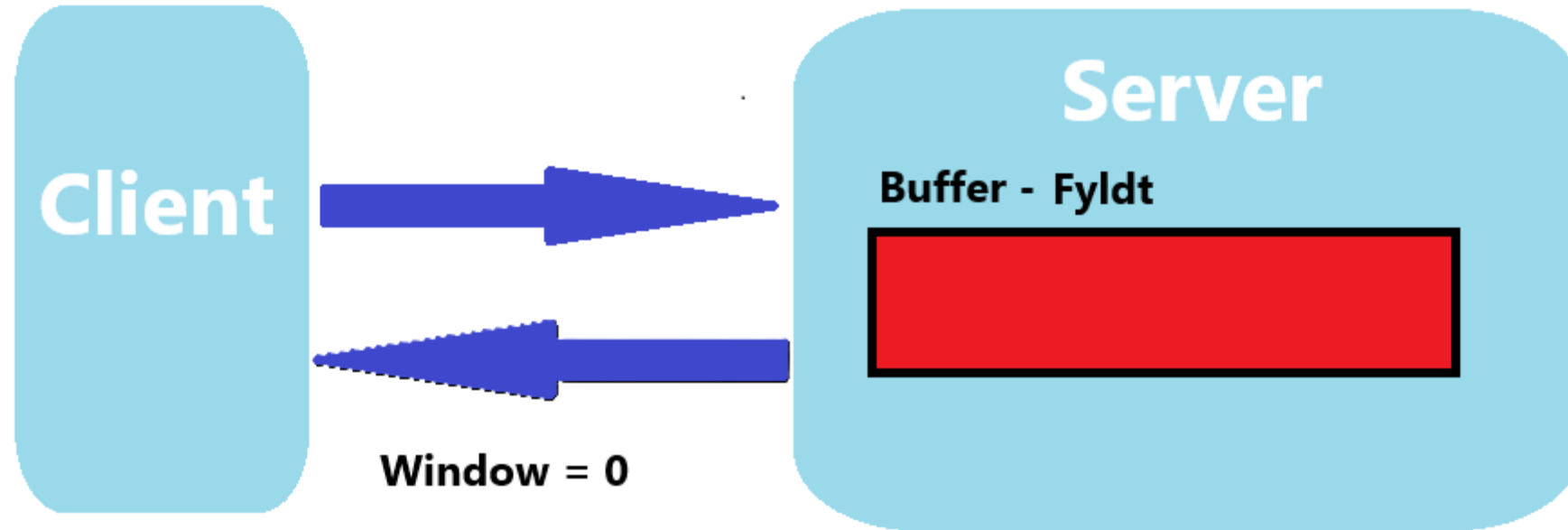


Figure 3.39 ♦ Closing a TCP connection

Modtager har plads



Modtager er fyldt (Congestion)



TCP segment structure

TCP Header

