

# Introduction to Computer Networks

## User Datagram Protocol (UDP) (§6.4)



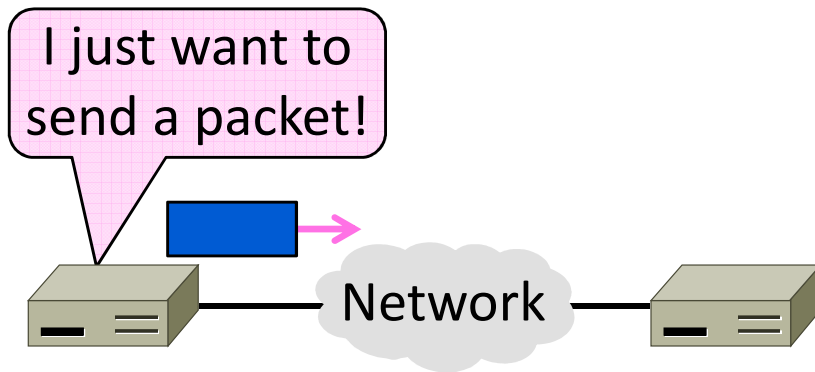
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# Topic

- Sending messages with UDP
  - A shim layer on packets



# User Datagram Protocol (UDP)

- Used by apps that don't want reliability or bytestreams

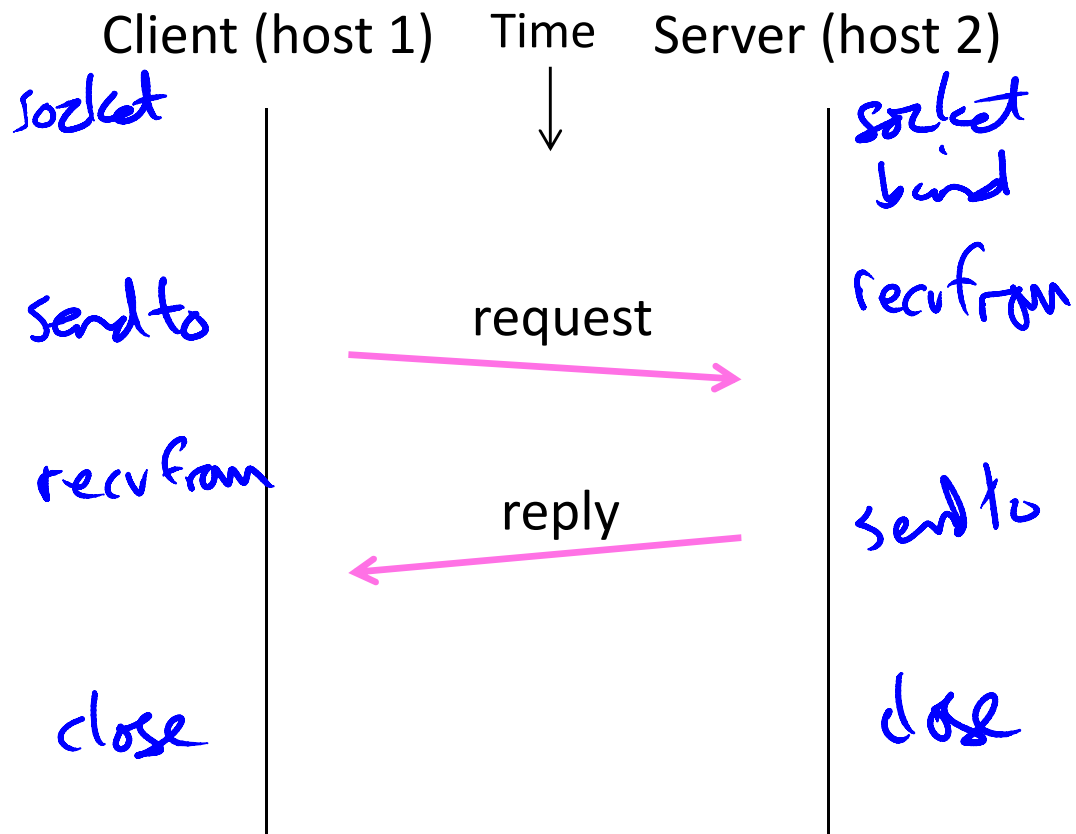
➤ Voice-over-IP (unreliable)

➤ DNS, RPC (message-oriented)

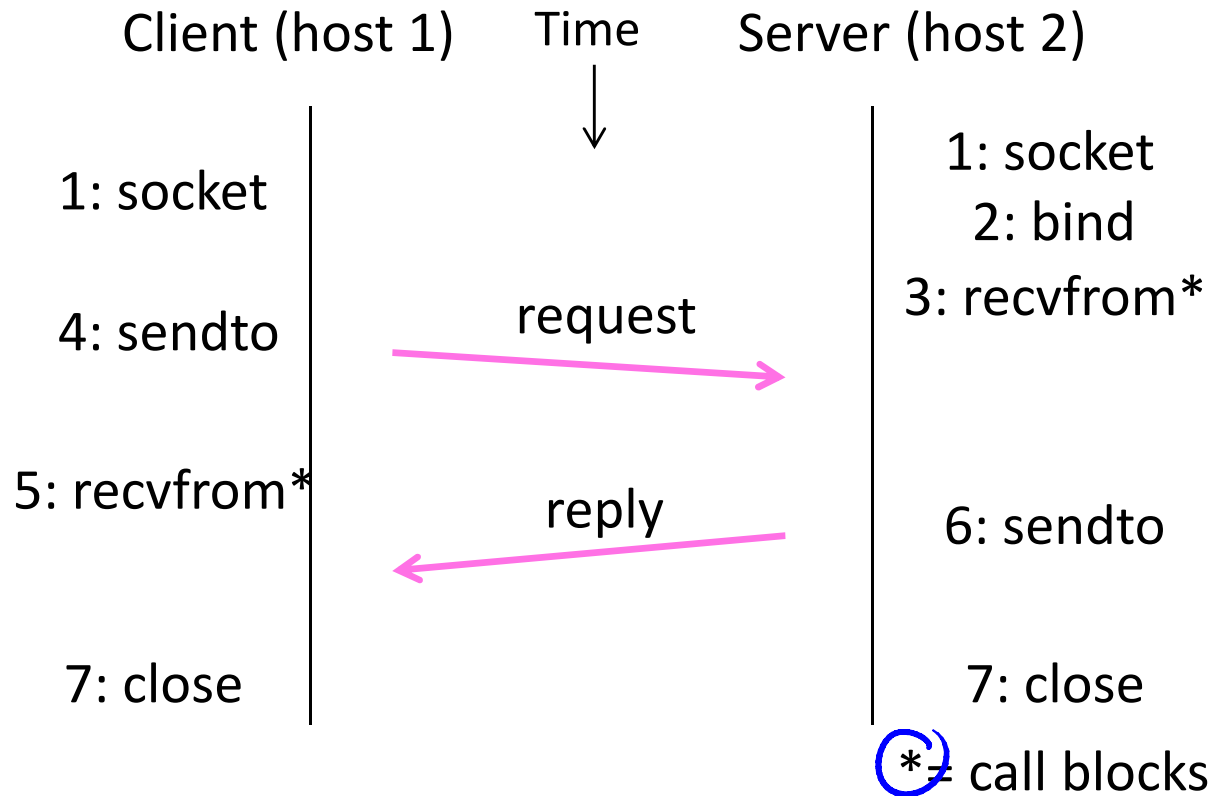
➤ DHCP (bootstrapping)

(If application wants reliability and messages then it has work to do!)

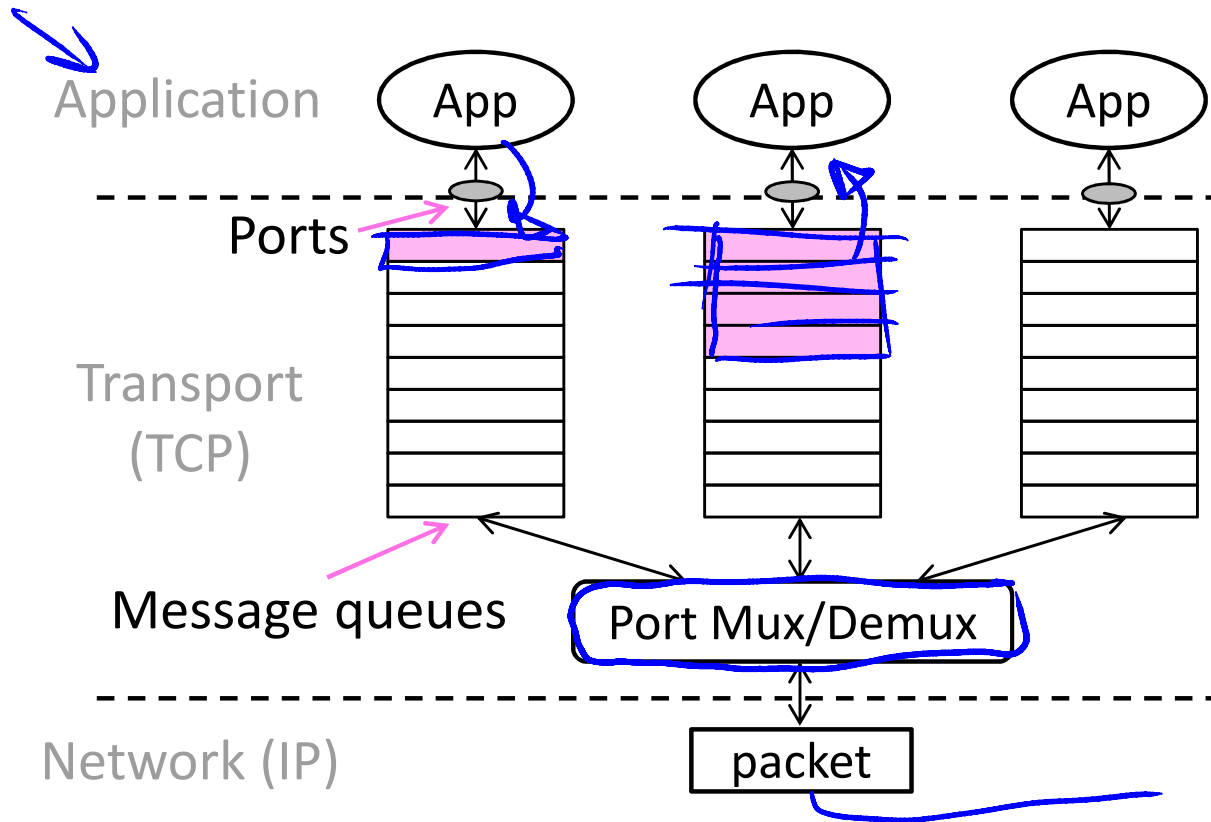
# Datagram Sockets



# Datagram Sockets (2)

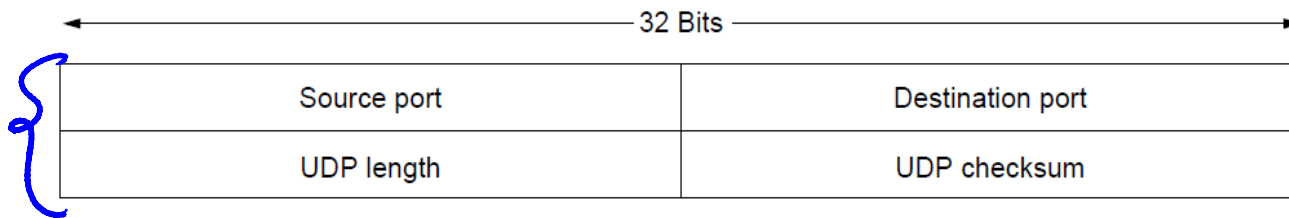


# UDP Buffering



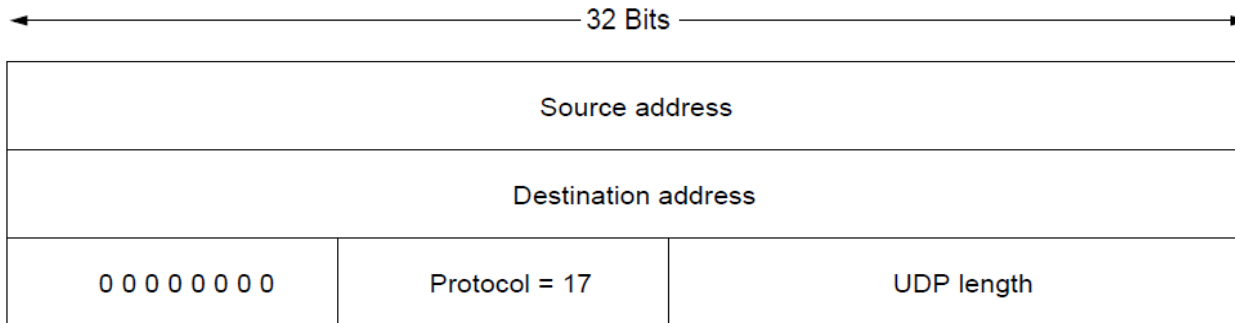
# UDP Header

- Uses ports to identify sending and receiving application processes
- Datagram length up to 64K
- Checksum (16 bits) for reliability



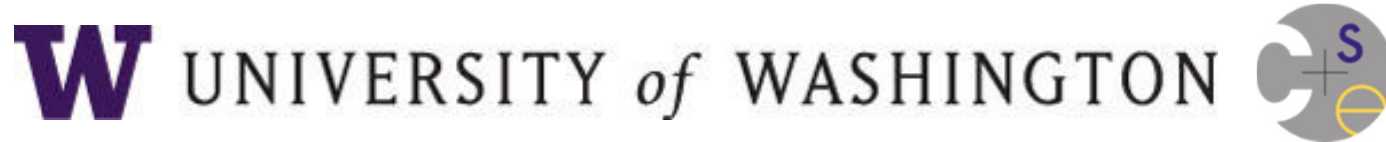
# UDP Header (2)

- Optional checksum covers UDP segment and IP pseudoheader
  - Checks key IP fields (addresses)
  - Value of zero means “no checksum”





# END



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