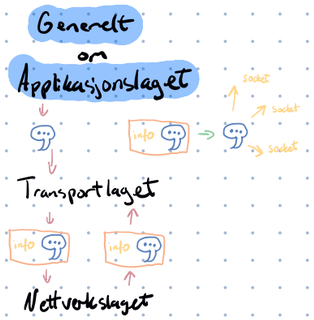
Hvordan informasjon sendes

Generelt om Applikasjonslaget



Etablere kontakt

Kobling

Sende informasjon

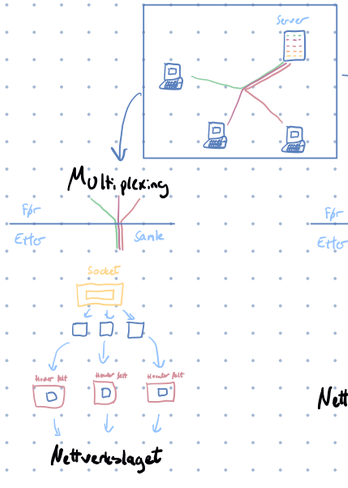
Se nedenfor

Sender vs Mottaker

TCP - Sender

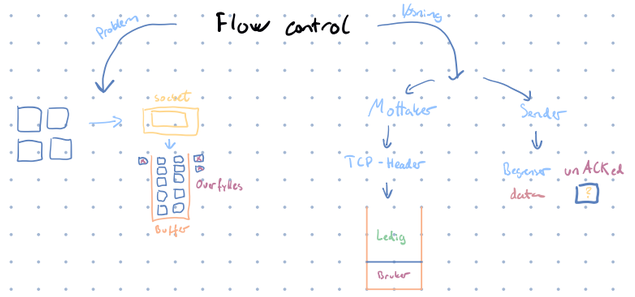
TCP - Mottaker

Snakke med server



Egenskaper ved TCP

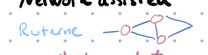
Flow control

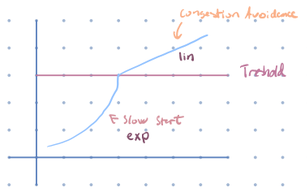


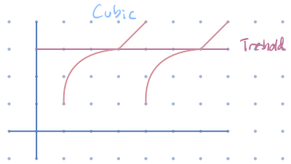
Congestion control

End-to-End ★TCP

Network assisted

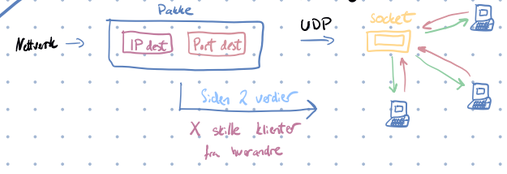




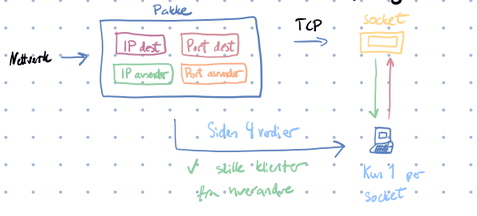


to typer

Connectionless Demultiplexing UDP

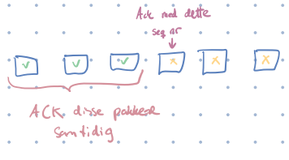


Connection oriented Demultiplexing TCP



Sende informasjon

- Kumulativ ACK:



- Quic → UDP → congestion control
  - Quality: Data overføring
  - 1 RTT
- Two-way-handshake
  - duplisert
  - halvåpen
- Selectiv repeat vs Go-Back-N:

- Hvordan TCP fungerer

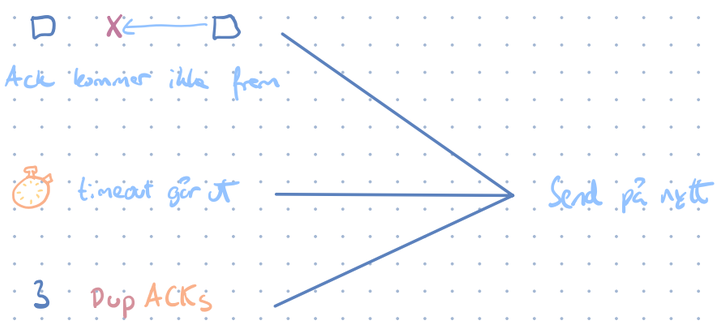
Mottaker

Riktig rekkefølge → Vent og send Kumulativ ACK

Out of order → Duplicate ACK med den man ønsker, men ikke første pakken

Fyller et gap → Send ACK

Sender



UDP

TCP

Connectionless Demultiplexing

Pakke

IP dest | Port dest

Siden 2 verdier

X · skille klienter fra hverandre

Demultiplexing

Connection oriented Demultiplexing

Pakke

Nettverk

IP dest | Port dest | IP avsender | Port avsender

Siden 4 verdier

✓ · skille klienter fra hverandre

Datagram

Hvordan informasjon sendes

Strøm

1010110101100010

H1 | H2 | H3

Analyserer header etter informasjon om klient

Hvor sende informasjon tilbake

Socket

3-way Håndtrykk

Tilkoblet socket

Hei!

Går over til en annen socket

Sender data

socket

Antall tilkoblinger

socket

Kan ha samme socket ulike brukere, men det kan ikke være samtidig

Kun 1 per socket

Brukes ikke i demultiplexing

Source Port | Destination Port

fordi variabel lengde → Length | Checksum

Header felt

Source Port | Destination Port