

INF3190 Group lecture

Lecture #9

Jan Anders Bremer

UiO - IFI

22.03.2013

Contact information

Phone: 91125994

Mail: janabr@ifi.uio.no

IRC: [janabr at irc.ifi.uio.no](irc://irc.ifi.uio.no) (currently in [#ping.uio.no](irc://irc.ifi.uio.no) and [#cyb](irc://irc.ifi.uio.no), but you can always `/msg me`)

Feel free to send questions, suggestions and feedback.

- Transport layer
- More TCP
- Protocol-fun

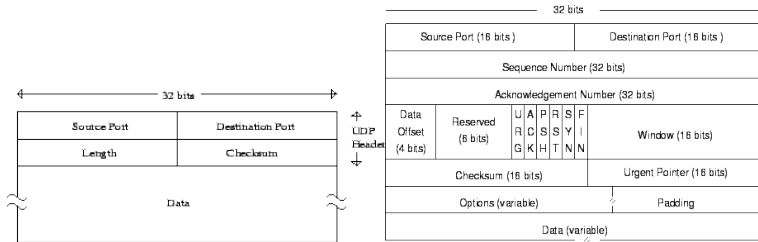
Transport layer (I4)

- Not on intermediate systems
- Considered the end-point of your connection to the net (I5 is your application)
- Provides TCP and UDP.

Reliability in the 4th layer

- If the 4th layer is to be reliable it must provide the following - reliably:
 - Establishment
 - Communications
 - Tear-down
- For reliability: TCP (file transfers, http). Connection-oriented (more secure and reliable)
- For speed and performance: UDP (voice chat, streaming). Connection-less (faster)

Packet structure



- Image-source: [link](#)

Three-way handshake

- SYN - SYN-ACK - ACK
- Two Generals' Problem - SYN - SYN-ACK

- We use ports to differentiate processes. We do not use port = pid as we want to be able to give any port to any process (web servers running on port 31337? hardly.)
- Max payload for TCP - 65495 (40 bytes for headers, max size of a packet 65535)