

IT 609

Network and System Administration

UDP

Tuesday October 12, 2021

UDP

UDP

We don't need no guarantees!

UDP - User Datagram Protocol

Like TCP, but simpler:

No SEQ/ACK

No Flags

No 3-way handshake

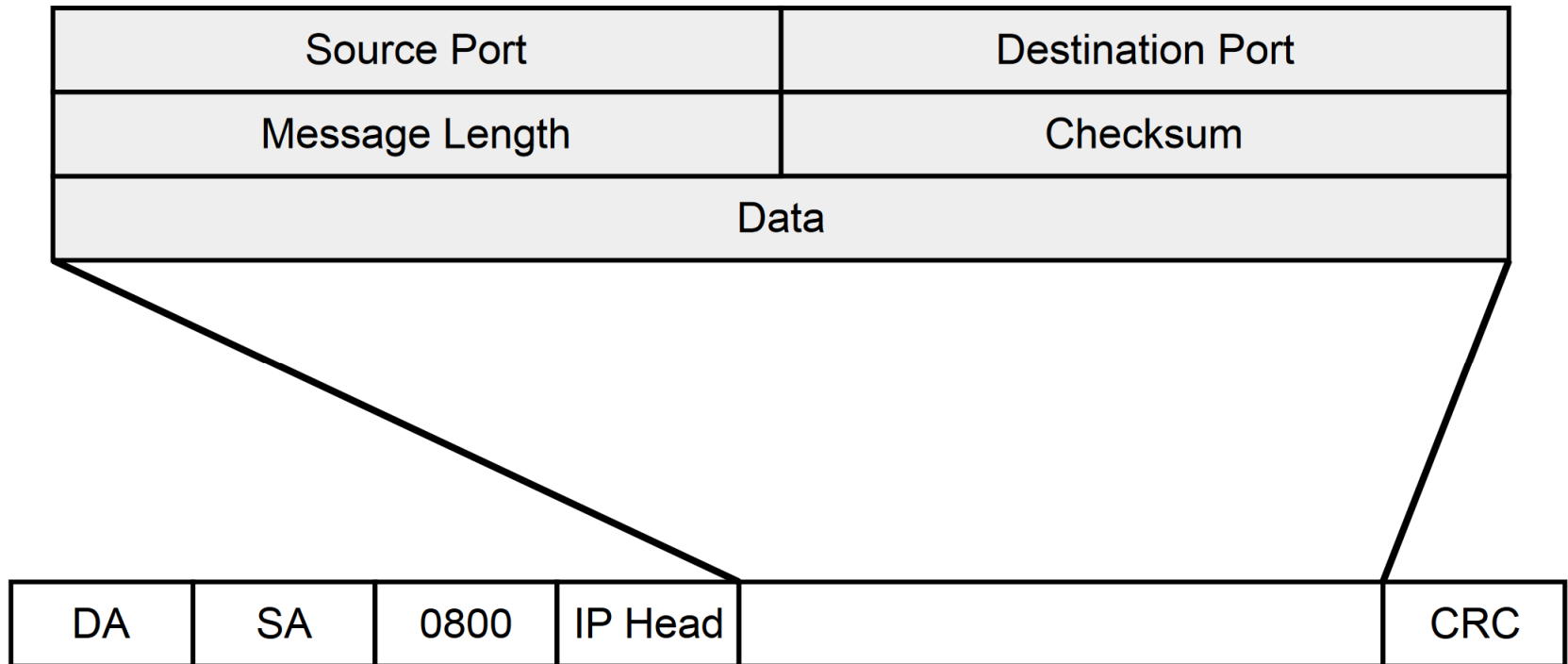
No retransmission

No Window value or associated buffers

No congestion control

So what's left?

UDP Packets



All contained in IP Datagram

Ports & UDP

UDP still uses port values to identify the target application and the sending application

Similar rules as with TCP ports

Well-known Ports: 0 thru 1023

May be registered with IANA by a company for a specific use or used as needed

Some Well Known Ports

Application	Type	Number
FTP	TCP	20, 21
Telnet	TCP	23
SMTP	TCP	25
DNS	UDP	53
DHCP	UDP	67,68
HTTP	TCP	80
POP3	TCP	110
LDAP	UDP	389
HTTPS	TCP	443

What Uses UDP?

Simple request/response applications:

Domain Name System (DNS)

Simple Network Management Protocol (SNMP)

Dynamic Host Configuration Protocol (DHCP)

Router Information Protocol (RIP)

Streaming voice or video, especially live

Why UDP?

Speed

Compare a 3-way handshake vs a quick UDP request/response

Better ability to use all of the network capacity

Application can (and must) cope with some data loss