

TCP Vs UDP

Transmission Control Protocol

Internet protocol that connect a server and a client.

Connection oriented
(Means: It first establish the connection then transfer the data)

Reliability
(Means: Notify the sender whether data is received OR not)

P1 P2 P3

reach in order

User Datagram protocol

a communications protocol that facilitates the exchange of messages b/w computing devices in a network.

connection less
(Means: does not care about connection, whenever it give data from an application → start transmission of data.)

less Reliability
(Not sure about get data)

↳ like P3 P2 P1

not reach in order

TCP Vs UDP

Error Control is **mandatory**.
{ Here, use **checksum** to **check** error }

Slow transmission
(here data travel only on **one** network)

More overhead
(Means: TCP header 20-60 Byte)

Flow Control, **Congestion** Control

{ check for capacity of data }
↓
help in finding packet if loss.

Error Control is **optional**.
{ UDP header also have **checksum** but **only** difference is this error control is **optional** }

Fast transmission
(here data travel from **multiple** network)

Less overhead
(8 Byte)

No flow control and **congestion** control.

↓
No help in finding packet if loss.

Keypoints :

- ① TCP uses → HTTP
UDP uses → DNS
- ② TCP uses → FTP (file transfer protocol)
UDP uses → BOOTP, DHCP, RIP