
TCP/IP Cheat Sheet

In the following pictures, each row corresponds to a 32-bit word (4 bytes).

IP Header

	<i>Byte 0</i>	<i>Byte 1</i>	<i>Byte 2</i>	<i>Byte 3</i>
0:	Version	HeadLen	TOS	Total Length
4:	ID			Fragment Offset
8:	TTL		Protocol	Checksum
12:	Source Address			
16:	Destination Address			

Notes:

- TOS = “Type of Service” (e.g., low delay, reliability, low cost, etc.)
- Fragment offset also includes flags such as “Don’t fragment” or “More fragments”
- Options follow header, such as security (IPsec), source routing, etc.

UDP (Protocol 17) Header

0:	Source Port	Destination Port
4:	UDP Length	UDP Checksum

TCP (Protocol 6) Header

0:	Source Port		Destination Port	
4:	Sequence Number			
8:	ACK Number			
12:	Data Offset	Unused	Flags	Window
16:	Checksum			Urgent Pointer

TCP flags include FIN, SYN, RST, PUSH, ACK, and URG