

Network Headers and Encapsulations

CheatSheet

Ethernet II Header 14 or 18 Bytes	Preamble 8 bytes	DST MAC Address 6 bytes	SRC MAC Address 6 bytes	802.1q Tag 4 bytes	Type 2 bytes	+	FCS 4 bytes					
IP Header 20 bytes	Version value 4 for IPv4	Length	ToS Differentiated Services Code Point	Identifier, Flags, and Fragment Offset	Total Length	Protocol	Header Checksum	Source IP Address	Destination IP Address	Options and Padding		
TCP Header 20 bytes	Source TCP port number	Destination TCP port number	Sequence number	Acknowledgment number	TCP data offset	Reserved data	Control flags	Window size Max. 65,535 bytes	TCP checksum	Urgent pointer	TCP optional data	
UDP Header 8 Bytes	Source UDP port number	Destination UDP port number	Length of data	UDP checksum	tomislavk.blog							
ARP Header	Hardware Type	Protocol Type	Hardware Size	Protocol Size	OpCode	Sender IP	Sender MAC	Target IP	Target MAC			
ARP Request 28 Bytes	Ethernet II	ARP Header	FCS									

GRE Header RFC 2890 4 Bytes	Flags	Reserved 0	Protocol Type	Version	Checksum (Optional)	Reserved 1 (Optional)	Key (Optional)	Sequence number (Optional)
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Ethernet Frame Encapsulate in GRE	Ethernet II Outer	IP Header Outer	GRE Header RFC 2890	Ethernet II Inner	IP Header Inner	TCP Header Inner	Data	FCS
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VxLAN Header 8 Bytes	Flags 8 bits	Reserved 24 bits	VxLAN ID VNID 24 bits	Reserved 8 bits
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Ethernet Frame with IP	Ethernet II	IP Header	TCP/UDP/ICMP Header	Data	FCS
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Ethernet Frame Encap. to UDP and VxLAN	Ethernet II Outer	IP Header Outer	UDP Header Outer	VxLAN Header	Ethernet II Inner	IP Header Inner	TCP Header Inner	Data	FCS
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GENEVE Header RFC 8926 Min. 8 Bytes	Version	Opt Len	O (1 bit): Control packet	C (1 bit): Critical options present.	Rsvd.	Protocol Type	Virtual Network Identifier (VNI)	Reserved
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Ethernet Frame Encap. to UDP and GENEVE	Ethernet II Outer	IP Header Outer	UDP Header Outer	GENEVE Header	Ethernet II Inner	IP Header Inner	TCP Header Inner	Data	FCS
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