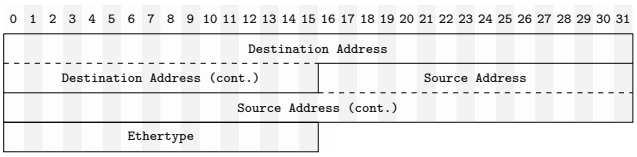

Figure 1: Ethernet Header

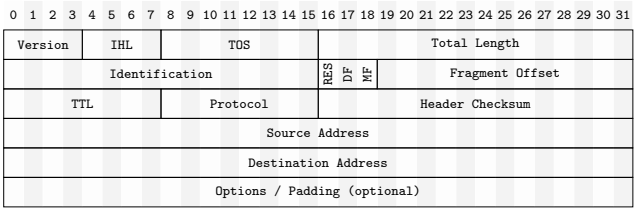

Figure 2: IPv4 Header

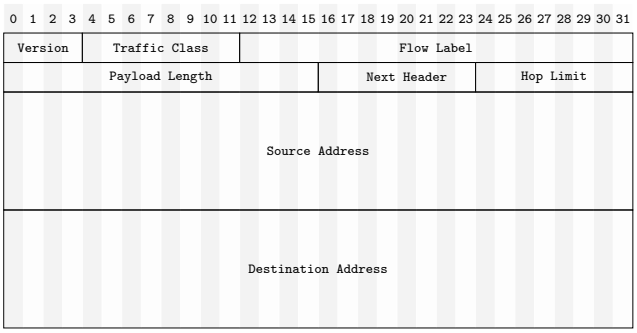

Figure 3: IPv6 Header

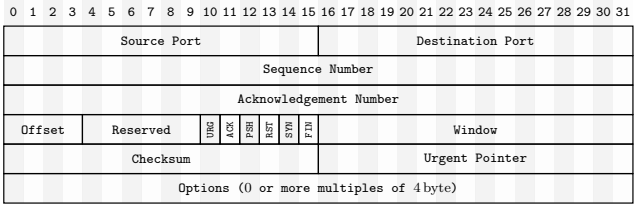

Figure 4: TCP Header

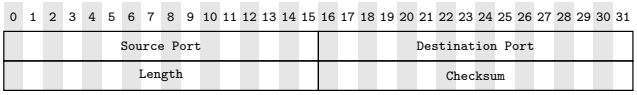

Figure 5: UDP Header

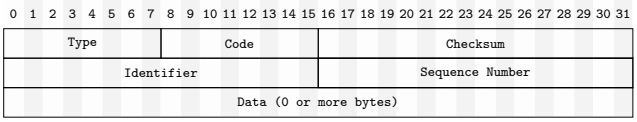

Figure 6: ICMP Echo Request/Reply

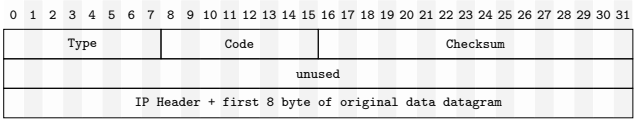

Figure 7: ICMP Destination unreachable

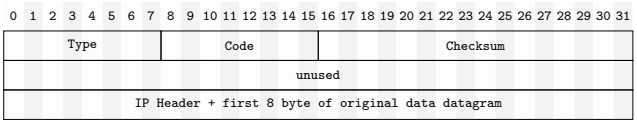

Figure 8: ICMP TTL Exceeded

Ethertype	Keyword	Protocol
0x0800	IPv4	Internet Protocol, Version 4
0x0806	ARP	Address Resolution Protocol
0x0842	WoL	Wake-on-LAN Magic Packet
0x8035	RARP	Reverse Address Resolution Protocol
0x814c	SNMP	Simple Network Management Protocol
0x86dd	IPv6	Internet Protocol, Version 6

Table 1: Ethertypes

Protocol / Next Header	Keyword	Protocol
0x01	ICMP	Internet Control Message
0x02	IGMP	Interet Group Management
0x04	IPv4	IPv4 encapsulation
0x06	TCP	Transmission Control
0x09	EGP	Exterior Gateway Protocol
0x0a	IGP	any private interor gateway protocol
0x11	UDP	User Datagram
0x21	IPv6	IPv6 encapsulation
0x2f	GRE	General Routing Encapsulation
0x32	ESP	Encapsulating Security Payload
0x84	SCTP	Stream Control Transmission

Table 2: IP Protocol Numbers

Port Number	Service Name	Description
22	ssh	The Secure Shell (SSH) Protocol
23	telnet	Telnet
25	smtp	Simple Mail Transfer
53	domain	Domain Name Server
67	bootps	Bootstrap Protocol Server (DHCP)
68	bootpc	Bootstrap Protocol Client (DHCP)
80	http	World Wide Web HTTP
110	pop3	Post Office Protocol - Version 3
443	https	http over TLS/SSL
546	dhcpv6-client	DHCPv6 Client
547	dhcpv6-server	DHCPv6 Server

Table 3: Well Known Port Numbers

Type	Code	Description
0 -- Echo Reply	0	Echo reply
1 and 2		*Reserved*
3 - Desintation Unreachable	0	Destination network unreachable
	1	Destination host unreachable
	2	Destination protocol unreachable
	3	Destination port unreachable
	4	Fragmentation required, and DF flag set
	5	Source route failed
	6	Destination network unknown
	7	Destination host unknown
	8	Source host isolated
	9	Network administratively prohibited
	10	Host administratively prohibited
	11	Network unreachable for TOS
	12	Host unreachable for TOS
	13	Communication administratively prohibited
	14	Host Precedence Violation
	15	Precedence cutoff in effect
4 - Source Quench	0	Source quench (congestion control)
5 - Redirect Message	0	Redirect Datagram for the Network
	1	Redirect Datagram for the Host
	2	Redirect Datagram for the TOS & network
	3	Redirect Datagram for the TOS & host
6		Alternate Host Address
7		*Reserved*
8 - Echo Request	0	Echo request
9 - Router Advertisement	0	Router advertisement
10 - Router Solicitation	0	Router discovery/selection/solicitation
11 - Time Exceeded	0	TTL expired in transit
	1	Fragment Reassembly Time Exceeded
12 - Parameter Problem	0	Pointer indicates the error
	1	Missing a required option
	2	Bad length
13 - Timestamp	0	Timestamp
14 - Timestamp Reply	0	Timestamp reply
15 - Information Request	0	Information request
16 - Information Reply	0	Information reply
17 - Address Mask Request	0	Address Mask Request
18 - Address Mask Reply	0	Address Mask Reply
19 - 29		*Reserved*
30 - Traceroute	0	Information Request
31		Datagram Conversion Error
32		Mobile Host Redirect
33		Where-Are-You (originally meant for IPv6)
34		Here-I-Am (originally meant for IPv6)
35		Mobile Registration Request
36		Mobile Registration Reply
37		Domain Name Request
38		Domain Name Reply
39		SKIP Algorithm Discovery Protocol
40		Photuris, Security failures
41		ICMP for experimental mobility protocols
42 - 255		*Reseved*

Table 4: ICMP Types/Codes