List of Protocols

Layer 1 protocols(physical layer)

- USB Physical layer
- Ethernet physical layer including 10 BASE T, 100 BASE T,100 BASE TX,100 BASE FX, 1000 BASE T and other variants
- varieties of 802.11 Wi-Fi physical layers
- DSL
- ISDN
- T1 and other T-carrier links
- E1 and other E-carrier links
- Bluetooth physical layer

Layer 2 protocols(Data Link Layer)

- CDP
- CHAP   Challenge handshake Authentication Protocol
- Ethernet
- Frame Relay
- HDLC   high-level data link control
- IEEE 802.11 Wi-Fi
- LLC   Logic Link Control
- LACP   Link aggregation control protocol
- LLDP   Link layer discovery protocol
- LCP   Link Control Protocol(part of PPP)
- MAC   Media Access Control
- PAgP   Cisco Systems proprietary link aggregation protocol
- PPP   point-to-point protocol
- STP   spanning tree protocol
- VTP   VLAN trunking protocol
- VLAN   Virtual local area network

Layer 2 or layer 3(some classify it as layer 2 and some layer 3)

- ARP   Address Resolution protocol
- ProxyARP
- RARP   Reverse Address Resolution protocol

Layer 3 protocols(Network Layer in OSI or Internet layer in TCP/IP
- Anti-replay
- ATM   Asynchronous Transfer Mode
- EIGRP   Enhanced Interior Gateway Routing Protocol
- GRE   Generic Routing Encapsulation
- GLBP   Gateway Load Balancing Protocol
- HSRP   Hot Standby Router Protocol
- Frame Relay
- RIP   Routing Information Protocol
- RIPv2

- IGRP   Interior Gateway Routing protocol
- ICMP   Internet Control Message Protocol
- ICMPv6
- IGMP   Internet Group mangement Protocol
- IPSec   Internet protocol security
- IPv4
- IPv6
- IS-IS   Intermediate system- Intermediate system
- MPLS   Multi-protocol label switching
- NAT   Network Address translation
- OSPF   Open Shortest Path First
- VRRP   Virtual Router Redundancy Protocol

Layer 4 (transport layer or Host-to-Host layer)

- AH   Authentication header over IP or Ipsec
- TCP   Transmission Control Protocol
- UDP   User Datagram Protocol

Layer 5 (session layer or application layer in DoD)

- NetBIOS File sharing and name resolution protocol -the basis of file sharing in windows
- NFS Network File System

Layer 7(application layer)

- BitTorrent   A peer to peer file sharing system
- BGP   Border Gateway Protocol
- DNS   Domain name System
- DHCP   Dynamic Host Configuration Protocol
- FTP   File Transfer Protocol
- HTTP   Hypertext Transfer Protocol
- HTTPS   Hypertext Transfer Protocol secure
- IRC   Internet Relay Chat
- NTP   Network Time Protocol
- POP3   Post Office Protocol version 3
- RTP   Real-time Transport Protocol
- SSH   Secure Shell
- SMTP   Simple Mail Transfer Protocol
- SNMP   Simple Network Management Protocol
- Telnet   Remote terminal access protocol
- TFTP   Trivial File Transfer Protocol
- URL   Uniform Resource Locator

Protocol Numbers

Protocol	Number
ICMP	1
IGMP	2
IPv4	4
TCP	6
EGP	8
IGP	9
RDP(reliable data protocol)	27
IPv6	41
GRE	47
ICMPv6	58
EIGRP	88
OSPF	89
VRRP	112

These protocol numbers are used in protocol field in IP header.

A list of Internet socket port numbers used by protocols of Transport Layer of the Internet Protocol Suite for the establishment of host-to-host connectivity.

Protocol	TCP	UDP	Port NO.
FTP data transfer	TCP		20
FTP control	TCP		21
SSH	TCP		22
Telnet	TCP		23
SMTP	TCP		25
DNS	TCP	UDP	53
BOOTP Server and also used by DHCP		UDP	67
BOOTP Client and also used by DHCP		UDP	68
TFTP		UDP	69
HTTP	TCP		80
POP2	TCP		109
POP3	TCP		110
NTP	TCP		123
SNMP		UDP	161
SNMP Trap	TCP	UDP	162
HTTPS	TCP		443
Syslog		UDP	514
NFS		UDP	944