

Internet and Networking Acronyms

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Click the letter corresponding to the acronym

Click this bar to search for words or phrases

- Usage instructions

Numerical

- 1K-XMODEM
 802.x
 822

A

- ACK
 ACL
 ACLU
 AD
 ANSI
 AOL
 ARPA
 ARPANET
 AS
 ASN.1
 ATM
 AUI
 AUP

B

- baud
 BBS
 Bcc
 BER
 BGP
 BIND
 BITNET
 BOB
 BOF
 BOOTP
 BPS
 BSC
 BSD

C

- Cc
 CCIRN
 CCITT
 CERN
 CERT

- CGI
- CICA
- CNI
- COAX
- CREN
- CSDS
- CSMA/CD
- CTPA
- CUAI
- CWIS

D

- DARPA
- DCE
- DDN
- DDN NIC
- DE
- DEC
- DECUS
- DEK
- DES
- DFT
- DISA
- DIX
- DNS
- DOD
- DS-1
- DS-3
- DSA
- DUA
- DTE

E

- EARN
- EFF
- EFLA
- EFNet
- EGP
- EOB
- EOF

F

- FAQ
- FDDI
- FIX
- FNC
- FOSSIL
- FQDN
- FTP
- FYI

G

- GOSIP
- GZIP

H

- HIPPI
- HPCC
- HTML
- HST
- HTTP

I

- IAB
- IANA
- IAP
- ICMP
- I-D
- IEEE
- IEEE 802
- IEN
- IESG
- IETF
- IGP
- IINREN
- IMR
- IP
- IPHONE
- IPss
- IPX
- IR
- IRC
- IRCOP
- IRSG
- IRTF
- IS
- ISDN
- IS-IS
- ISO
- ISOC
- ISODE
- ISP

J

- JKREY
- JPEG

K

- KA9Q
- KIBO

L

- LAN
- LLC

M

- MAC
- MAN
- MAPI
- MBPS
- MHS
- MIB
- MIME
- MNP-5
- MODEM
- MOTSS
- MSG
- MSS
- MTU
- MUD
- MUSH
- MUSE
- MUX

N

- NAK
- NASA
- NATA
- NCSA
- NetBIOS
- NetBEUI
- NFS
- NIC
- NIC.DDN.MIL
- NIS
- NIST
- NNTP
- NOC
- NOS
- NREN
- NSA
- NSF
- NSS
- NTP

O

- OCLC
- OPAC
- OSI
- OSPF

P

- PAD
- PARC
- PBX
- PDU
- Perl
- PEM
- PING
- PNG
- POP
- POV
- POTS
- PPP
- PSN
- PTT

Q

R

- RARE
- RARP
- RAS
- RBOC
- RDR
- RFC
- RFC 822
- RFP
- RIP
- RIPE
- ROT13
- RPC
- RS-232
- RTFM
- RTS/CTS
- RTT

S

- SAA
- SATAN
- serv
- setext
- SGML
- SIG
- SLIP
- SMDS
- SMI
- SMTP
- SNA
- SNADS

- SNMP
- SQL
- SRPI
- srv
- STD

T

- T-1
- T-3
- TAC
- tar
- TCP
- TIM
- TLA
- TN3270
- TOP
- TS
- TSO
- TUT
- TTY
- twinax

U

- UART
- UDP
- UIS
- UNIX
- URL
- USR
- UTC
- UUCP
- UUE/UUD

V

- V.xx (V.14, V.32bis, etc.)
- VAN
- VERONICA
- VRML
- VSL
- VTAM
- VT52
- VT100
- VT102

W

- W3
- WAIS
- WAN
- WATS
- WWW
- W3C

X

- X
- X.25
- X.400
- X.500
- XCON
- XDR
- XMODEM
- XNS
- XON/XOFF

Y

- YMODEM
- YMODEM-G
- YP

Z

- ZIP
- ZMODEM

Internet Terms and Phrases

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Click the letter corresponding to a word/phrase												
Click this bar to search for an acronym												

- Usage instructions

Numerical

- 10BaseT

A

- abstract syntax
- Abstract Syntax Notation One (ASN.1)
- Acceptable Use Policy (AUP)
- access control list (ACL)
- acknowledgment (ACK)
- address
- address mask
- address resolution
- Address Resolution Protocol (ARP)
- admin
- Administrative Domain (AD)
- Advanced Research Projects Agency Network
- agent
- alias
- America Online (AOL)
- American National Standards Institute (ANSI)
- American Standard Code for Information Interchange
- anchor
- anonymous FTP
- anonymous remailer
- Appletalk
- application layer
- archie
- archive site
- ASCII graphics (ASCII art)
- assigned numbers
- asynchronous
- Asynchronous Transfer Mode (ATM)
- AT command set
- Attachment Unit Interface (AUI)
- authentication
- autoresponder
- Autonomous System (AS)

B

- backbone
- bandwidth

- bang path
- baseband
- baud
- Basic Encoding Rules (BER)
- Berkeley Internet Name Domain (BIND)
- Berkeley Software Distribution (BSD)
- BIFF
- big-endian
- Birds Of a Feather (BOF)
- big-endian
- BITNET
- blind carbon copy (Bcc)
- block
- bookmark
- Border Gateway Protocol (BGP)
- bot
- bounce
- break
- breakout box (BOB)
- bridge
- broadband
- broadcast
- broadcast storm
- router
- browser
- bulletin board system (BBS)
- Byte Information Exchange (BIX)

C

- campus-wide information system (CWIS)
- carbon copy (Cc)
- carrier
- Carrier-Sense Multiple Access/Collision Detection (CSMA/CD)
- Cello
- Center for Innovative Computer Applications (CICA)
- Common Gateway Interface (CGI)
- Chameleon
- channel
- checksum
- circuit switching
- Clarkson drivers
- client
- client-server model
- Clipper chip
- Coalition for Networked Information (CNI)
- coaxial cable
- Comite Consultatif International de Telegraphique et Telephonique (CCITT)
- COM port
- command prompt
- communications port
- CompuServe Information Services (CIS)

- Computer Emergency Response Team (CERT)
- congestion
- connection-oriented
- connectionless
- cookie
- Coordinating Committee for Intercontinental Research Networks (CCIRN)
- core gateway
- Corporation for Research and Educational Networking (CREN)
- cracker
- cross-post
- CU-SeeMe
- cyberspace
- cyclic redundancy check (CRC)
- Cypherpunks

D

- daemon
- data byte
- data compression
- data encryption key (DEK)
- Data Encryption Standard (DES)
- datagram
- data terminal emulation (DTE)
- DECnet
- dedicated line
- default route
- Defense Advanced Research Projects Agency (DARPA)
- Defense Data Network (DDN)
- Defense Data Network Network Information Center (DDN NIC)
- Defense Information Systems Agency (DISA)
- dialup
- Directory Access Protocol
- Directory System Agent (DSA)
- Directory User Agent (DUA)
- Distributed Computing Environment (DCE)
- distributed database
- DIX connector
- DIX Ethernet
- domain
- Domain Name System (DNS)
- door
- dot address (dotted decimal notation)
- dot file
- Domain Name System (DNS)
- downlink
- download
- dumb terminal
- duplex
- dynamic adaptive routing
- dynamic address

E

- echo
- Ebone
- Electronic Data Interchange (EDI)
- Electronic Frontier Foundation (EFF)
- email
- email address
- emoticon :-)
- encapsulation
- encryption
- Eris Free Network (EFNet)
- Error 404
- Ethernet
- Ethernet meltdown
- Eudora
- European Academic and Research Network (EARN)
- European Center of Particle Physics (CERN)
- Extended Binary Coded Decimal Interchange Code (EBCDIC)
- extended four-letter acronym (EFLA)
- Exterior Gateway Protocol (EGP)
- external data representation (XDR)
- external protocol

F

- fake username
- FARNET
- Federal Information Exchange (FIX)
- Federal Networking Council (FNC)
- Fiber Distributed Data Interface (FDDI)
- FidoNet
- file server
- file transfer
- File Transfer Protocol (FTP)
- finger
- fingerd
- filter
- firewall
- flame
- flood
- flow control
- foo/foobar
- For Your Information (FYI)
- FOSSIL driver
- fractional T-1
- fragment
- fragmentation
- frame
- freenet
- full echo
- fully qualified domain name (FQDN)

G

- gated
- gateway
- gateway provider
- GENie
- Gopher
- Government OSI Profile (GOSIP)
- ground link
- GZIP

H

- hacker
- handle
- handshake
- hang
- hardware flow control (RTS/CTS)
- Hayes AT command set
- Hayes compatible
- Hayes Microcomputer Products, Inc.
- header
- heterogeneous network
- hierarchical routing
- High Performance Computing and Communications (HPCC)
- High Performance Parallel Interface (HIPPI)
- hit
- home page
- hop
- host
- host address
- hostname
- host number
- HS/Link
- hub
- hyperlink
- Hypertext Markup Language (HTML)
- Hypertext Transport Control (HTTP)

I

- identd
- Information Highway
- Institute of Electrical and Electronics Engineers (IEEE)
- Integrated Services Digital Network (ISDN)
- Interagency Interim National Research and Education (IINREN)
- Interior Gateway Protocol (IGP)
- Intermediate System (IS)
- Intermediate System-Intermediate System (IS-IS)
- International Organization for Standardization (ISO)
- internet
- Internet
- Internet access provider (IAP)

- Internet Adapter, the (TIA)
- internet address
- Internet Architecture Board (IAB)
- Internet Archive Listing Service (Archie)
- Internet Assigned Numbers Authority (IANA)
- Internet cafe
- Internet Control Message Protocol (ICMP)
- Internet-Draft (I-D)
- Internet Engineering Steering Group (IESG)
- Internet Engineering Task Force (IETF)
- Internet Experiment Note (IEN)
- Internet-in-a-Box
- Internet Monthly Report (IMR)
- Internet Network Information Center (InterNIC)
- internet number
- Internet Protocol (IP)
- Internet Registry (IR)
- Internet Relay Chat (IRC)
- Internet Research Steering Group (IRSG)
- Internet Research Task Force (IRTF)
- Internet service provider (ISP)
- Internet Society (ISOC)
- Internetwork Packet Exchange (IPX)
- InterNIC
- interoperability
- IP address
- IP datagram
- ISO Development Environment (ISODE)

J

- Java

K

- k-line
- Kerberos
- Kermit
- Knowbot
- Knowledge In, Bull**** Out (KIBO)

L

- lag
- landline
- layer
- leased line
- LineMode Browser
- line surge
- line eater
- link
- listserv
- little-endian
- Local Area Network (LAN)

- local echo
- Logical Link Control (LLC)
- login, logout, logon, logoff
- lurking
- Lynx

M

- MAC address
- mail application programming interface (MAPI)
- mailbomb
- mail bridge
- Mail Exchange Record (MX Record)
- mail exploder
- mail gateway
- mail path
- mail server
- mailing list
- Management Information Base (MIB)
- Martian
- maximum transmission unit (MTU)
- Media Access Control (MAC)
- Message Handling System (MHS)
- message switching
- Metropolitan Area Network (MAN)
- mid-level network
- mirror
- modem
- moderator
- modulation
- Mosaic
- multicast
- multihomed host
- Multipurpose Internet Mail Extensions (MIME)
- multi-station access unit (MAU/MSAU)
- Multi-User Dungeon (MUD)
- MX Record

N

- name resolution
- namespace
- National Institute of Standards and Technology (NIST)
- National Research and Education Network (NREN)
- National Science Foundation (NSF)
- National Security Agency (NSA)
- negative acknowledgment (NAK)
- NetBIOS
- NetBIOS Extended User Interface (NetBEUI)
- Netcom, Netcruiser
- Net.Cop/Net.Police
- Net.God
- Nethack

- [_netiquette](#)
- [_netlag](#)
- [_Netmanage](#)
- [_netmask](#)
- [_Netnews](#)
- [_Netscape](#)
- [_netsplit](#)
- [_Netware](#)
- [_network](#)
- [_network address](#)
- [_Network File System \(NFS\)](#)
- [_Network Information Center \(NIC\)](#)
- [_Network Information Services \(NIS\)](#)
- [_Network News Transfer Protocol \(NNTP\)](#)
- [_network number](#)
- [_network operating system \(NOS\)](#)
- [_Network Operations Center \(NOC\)](#)
- [_Network Time Protocol \(NTP\)](#)
- [_newbie](#)
- [_newsgroup](#)
- [_nick](#)
- [_Nodal Switching System \(NSS\)](#)
- [_node](#)
- [_NSA line eater](#)

O

- [_octet](#)
- [_octet-stream](#)
- [_online, offline](#)
- [_Online Computer Library Catalog](#)
- [_Online Public Access Catalog \(OPAC\)](#)
- [_online service](#)
- [_Open Shortest-Path First Interior Gateway Protocol](#)
- [_Open Systems Interconnection \(OSI\)](#)
- [_OSI Reference Model](#)

P

- [_packet](#)
- [_page](#)
- [_packet interNet groper \(PING\)](#)
- [_packet switch node \(PSN\)](#)
- [_packet switching](#)
- [_parity bit](#)
- [_Perl](#)
- [_phreaking, phone phreak](#)
- [_plan file](#)
- [_Point Of Presence \(POP\)](#)
- [_Point-to-Point Protocol \(PPP\)](#)
- [_port](#)
- [_Portable Network Graphics \(PNG\)](#)
- [_posting](#)

- Post Office Protocol (POP)
- Postal Telegraph and Telephone (PTT)
- postmaster
- Practical Extraction and Report Language (Perl)
- Pretty Good Privacy (PGP)
- Privacy Enhanced Mail (PEM)
- Prodigy
- prompt
- Prospero
- protocol
- protocol converter
- Protocol Data Unit (PDU)
- protocol stack
- provider
- proxy ARP
- public key

Q

- queue

R

- Read the F*cking Manual (RTFM)
- readme files
- reassembly
- recursive
- regional network
- remote access server (RAS)
- remote login
- Remote Procedure Call (RPC)
- repeater
- Request For Comments (RFC)
- Request For Proposal (RFP)
- Reseaux Associes pour la Recherche Europeenne (RARE)
- Reseaux IP Europeenne (RIPE)
- Reverse Address Resolution Protocol (RARP)
- root
- round-trip time (RTT)
- route
- routed
- router
- routing
- routing domain
- Routing Information Protocol (RIP)

S

- SATAN
- search engine
- secure commerce
- Serial Line IP (SLIP)
- serial port
- server

- Shase
- shell account
- signature
- Simple Mail Transfer Protocol (SMTP)
- Simple Network Management Protocol (SNMP)
- SimTel
- simplex
- site
- smiley
- snail mail
- spam
- socket
- source routing
- spike
- split
- spoiler
- Sprintnet
- Standard Generalized Markup Language (SGML)
- stop bit
- stream-oriented
- Structure of Management Information (SMI)
- structured, enhanced text (setext)
- stub network
- subnet
- subnet address
- subnet mask
- subnet number
- Sun Microsystems
- sysadmin
- sysop
- Switched Multimegabit Data Service (SMDS)
- Systems Network Architecture (SNA)

T

- T-1
- T-3
- tag
- talk
- tar
- TCP/IP Protocol Suite
- Telescript
- TELNET
- terminal
- Terminal Access Controller (TAC)
- terminal emulator
- terminal server
- thread
- Three Letter Acronym (TLA)
- throughput
- Time to Live (TTL)
- timeout

- token ring
- ToasterNet
- top level domain
- topology
- transceiver
- transit network
- Transmission Control Protocol (TCP)
- trolling
- trojan horse
- Trumpet
- tunnelling
- Twinsock
- twisted pair

U

- Undernet
- Universal Time Coordinated (UTC)
- UNIX-to-UNIX CoPy (UUCP)
- Uniform Resource Locator (URL)
- uplink
- upload
- urban legend
- USENET
- User Datagram Protocol (UDP)
- username
- US Robotics
- uucode/uuencoding/uudecoding

V

- Veronica
- videoconferencing
- viewer
- virtual circuit
- Virtual Reality Modelling Language (VRML)
- Virtual Software Library (VSL)

W

- warez
- Webcrawler
- webmaster
- Web page
- WELL, The
- white pages
- WHOIS
- Wide Area Information Servers (WAIS)
- Wide Area Network (WAN)
- World Wide Web (WWW or W3)
- World Wide Web Consortium(W3C)
- workstation
- worm

X

- Xerox Network System (XNS)

Y

- Yellow Pages (YP)

Z

- ZIP
- zone

10BaseT

A variant of Ethernet which allows stations to be attached via twisted pair cable.

See also: Ethernet, twisted pair

802.x

The set of IEEE standards for the definition of LAN protocols. The most commonly referred to are 802.2 and 802.5.

See also: Local Area Network (LAN), Institute of Electrical and Electronics Engineers (IEEE)

abstract syntax

A description of a data structure that is independent of machine-oriented structures and encodings. [Source: RFC1208] A type of data structure that can be implemented across several platforms and operating systems.

Abstract Syntax Notation One (ASN.1)

The language used by the OSI protocols for describing abstract syntax. This language is also used to encode SNMP packets. ASN.1 is defined in ISO documents 8824.2 and 8825.2.

See also: Basic Encoding Rules (BER), Open Systems Interconnection (OSI), Simple Network Management Protocol (SNMP), 882, abstract syntax

Acceptable Use Policy (AUP)

Many transit networks have policies which restrict the use to which the network may be put. A well known example is NSFNET's AUP which does not allow commercial use. Enforcement of AUPs varies with the network.

See also: [k-line](#), [freenet](#), [National Science Foundation \(NSF\)](#)

access control list (ACL)

Most network security systems operate by allowing selective use of services. An Access Control List is the usual means by which access to, and denial of, services is controlled. It is simply a list of the services available, each with a list of the hosts permitted to use the service.

See also: firewall, remote access server (RAS)

acknowledgment (ACK)

A type of message sent to indicate that a block of data arrived at its destination without error.
[Source: NNSC]

See also: NAK

address

There are three types of addresses in common use within the Internet. They are email address; IP, internet or Internet address; and hardware or MAC address.

See also: email address, IP address, internet address, MAC address

address mask (netmask, subnet mask)

A bit mask used to identify which bits in an IP address correspond to the network and subnet portions of the address. This mask is often referred to as the subnet mask because the network portion of the address can be determined by the encoding inherent in an IP address.

See also: [IP address](#)

address resolution

Conversion of an internet address into the corresponding physical address. All Internet addresses, including dynamic addresses used in SLIP/PPP accounts, are convertible to numeric addresses. All alphanumeric Internet addresses must be converted to a corresponding numerical address before a connection can be established.

See also: Serial Line Internet Protocol (SLIP), Point to Point Protocol (PPP), dynamic address

Address Resolution Protocol (ARP)

Used to dynamically discover the low level physical network hardware address that corresponds to the high level IP address for a given host. ARP is limited to physical network systems that support broadcast packets that can be heard by all hosts on the network. It is defined in RFC 826.

See also: OSI Reference Model, packet, host, Request For Comments (RFC), proxy ARP

Administrative Domain (AD)

Represents the sum of a collection of host and router computers, plus any and all interconnected networks under the management of a single administrative authority.

See also: router, host, system administrator

Advanced Peer-to-Peer Network (APPN)

IBM software used to link System/36's without a mainframe via an SNA network.

See also: SNA Distribution Services (SNADS), mainframe

Advanced Research Projects Agency Network (ARPANET)

A pioneering longhaul network funded by ARPA (now DARPA). It served as the basis for early networking research, as well as a central backbone during the development of the Internet. The ARPANET consisted of individual packet switching computers interconnected by leased lines. [Source: FY14]

See also: [backbone](#), [Internet](#), [Defense Advance Research Projects Agency \(DARPA\)](#)

agent

In the client-server model, the part of the system that performs information preparation and exchange on behalf of a client or server application. [Source: RFC1208]

See also: client-server model

Also: **Agent** (capitalized): usually refers to a Forte software product known as Agent (or, in its freeware form, Free Agent), probably the most popular newsreader program available for Windows in 1995.

See also: freeware, newsreader, USENET

alias

A name, usually short and easy to remember, that is translated into another name, usually long and difficult to remember. Aliases are used to fool computers into accepting short commands such as "GO" as substitutes for long strings of commands.

Not used to to indicate "alter ego"; nick or nickname is usually the term used for this purpose.

See also: nick, script

America Online (AOL)

A commercial online service with a graphical interface started in 1988 for Apple and Macintosh computers. Its primary userbase is now PC users and it also features an Internet gateway, as do most other online services. Hated by most veteran Internet users because of the way in which it suddenly announced its Internet gateway to customers without providing any instruction or prior training in net behavior.

See also: [online service](#), [GEnie](#), [CompuServe](#), [Internet access provider \(IAP\)](#)

American Civil Liberties Union (ACLU)

A non-profit organization providing legal support and advocacy primarily for First Amendment (free speech) rights and human decency issues; becoming more involved with issues relating to freedom of information as it concerns computers, computing and computer-based networking.

See also: Electronic Frontier Foundation (EFF)

American National Standards Institute (ANSI)

This organization is responsible for approving US standards in many areas, including computers and communications. Standards approved by this organization are often called ANSI standards (e.g., ANSI C is the version of the C language approved by ANSI). ANSI is a member of ISO. [Source: NNSC]

ANSI standard protocols are used in telecommunications to define standard character sets for low-resolution graphics and menuing in terminal software.

See also: International Organization for Standardization (ISO), High Performance Computing and Communications (HPCC), Standardized General Markup Language (SGML), VT-52/100/102

American Standard Code for Information Interchange (ASCII)

A standard character-to-number encoding widely used in the computer industry. Originally the numerical control (NC) tape punch format with odd parity (odd number of holes per tape row) used when paper tape was the common method used for storing computer information. Now used mainly to define the set of characters used in most computers as keyboard-enterable characters (a total of 256)

See also: EBCDIC, parity bit

anchor

Commonly used to refer to the text scripting used to create a link to other objects in the various World Wide Web formatting languages. When you see a highlighted link, whether text or graphical, on a Web page, the script used to turn that text or graphic into a clickable link is the link's anchor. As an example,

```
<a href="directory/newfile.html">Hi there!</a>
```

...is anchor text to turn:

Hi there!

...into a clickable link on an HTML-formatted World Wide Web page.

See also: [hypertext](#), [link](#), [Hypertext Markup Language \(HTML\)](#), [page](#)

anonymous FTP

Anonymous FTP allows a user to retrieve documents, files, programs, and other archived data from anywhere in the Internet without having to establish a userid (a unique user name for the specific system) and password. By using the special userid of "anonymous" the network user will bypass local security checks and will have access to publicly available files on the remote system.

See also: ([archive site](#), [file transfer protocol \(FTP\)](#))

anonymous remailer

Anonymous remailers are sites that permit users to post messages and email without being traced. These are particularly useful for sending and receiving encrypted data in situations where the sender does not wish to be identified by any party which may intercept such mail. Anonymous remailers are usually well-controlled, so that the host site maintains its own record of who uses the service and when. This permits such services to be used for the protection of privacy without them becoming havens for harassment, illegal activity and conspiracies.

See also: [email](#)

Appletalk

A networking protocol developed by Apple Computers for communication between Apple products (primarily the Macintosh and PowerPC) and other computers. This protocol is independent of the network layer on which it is run. Current implementations exist for Localtalk, a 235Kb/s local area network; and Ethertalk, a 10Mb/s local area network. [Source: NNSC] Also available on non-Apple platforms.

See also: [ARCnet](#), [Ethernet](#), [protocol](#), [layer](#), [OSI Reference Model](#)

application layer

The top layer of the network protocol stack (the multilayered sequence of protocols all end-user data must pass through before transfer is completed between the remote computer and the host); the layer farthest from the hardware.

The application layer is concerned with the semantics of work (e.g., formatting email messages and determining file type when downloading from or browsing on the World Wide Web). How that data is represented to the host and to other computers on the network, as well as how to reach the foreign node, are determined by lower layers of the network.

See also: layer, OSI Reference Model, World Wide Web (WWW/W3), network, node

archive

Strictly speaking, an archive is a backup copy of data. Archiving is the process of creating that backup. Archive is also used as slang for *compressed* archive, meaning that the data has been reduced in size using mathematical algorithms for purposes to reduce storage requirements or telecommunications transmission time. The backup set or tape cartridge created with normal backup software is an archive, as is a ZIP file. Technically, even installation disks for programs are archives since they are backups of the original factory set, although that is not how they are usually viewed by users.

See also: [data compression](#), [PKZIP](#)

archive site

A computer or part of a computer set up to provide access to a collection of files for Internet users.

See also: file transfer protocol (FTP), Archie, Gopher, Simtel, CICA

ARCnet

A baseband, token-passing LAN technology which preceded Ethernet, originally developed by John Murphy of Datapoint Corp. An acronym for **Attached Resource Computer network**. ARCnet cards are capable of operating at 2.5Mbits/sec, a fraction of the speed of current Ethernet cards. ARCnet uses the IEEE 802.4 specification for ARCnet cabling. Obsolete but cheap and usable for small in-home networks and many DOS-based offices.

See also: [Ethernet](#), [Institute of Electrical and Electronics Engineers \(IEEE\)](#)

ASCII art

Pictures created using the ASCII character set (mainly | - / \ and +). Also known as character graphics or ASCII graphics. Most commonly used to spice up email or as a method of expression on IRC. [Source: The Jargon File 3.0.0] Examples:

```
| \ \ \ \ / |      _ _ / |
|           |      \ o.o |   ACK!
|           |      = ( _ ) =  THPHTH!
| (o) (o)      U
c             ( _ )
| ' _ | _ )    (oo)
| / _ | _ )    \ /-----\
| / _ | _ )    ||           | \
| / _ | _ )    ||-----w||  *
```



```
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(Klingon warship from Star Trek)

See also: [ASCII](#), [EBCDIC](#), [Internet Relay Chat \(IRC\)](#)

assigned numbers

The RFC [STD2] which documents the currently assigned values from several series of numbers used in network protocol implementations. This RFC is updated periodically and, in any case, current information can be obtained from the Internet Assigned Numbers Authority (IANA). If you are developing a protocol or application that will require the use of a link, socket, port, protocol, etc., please contact the IANA to receive a number assignment. [Source: STD2]

See also: Internet Assigned Numbers Authority (IANA), Request For Comments (RFC), STD

asynchronous communications

When signals are sent to a computer at random intervals, they are said to be asynchronous. Synchronous transmission sends data at regularly timed intervals. Dialup networking via a modem uses asynchronous communication.

See also: modem, serial communications

Asynchronous Transfer Mode (ATM)

A method for the dynamic allocation of bandwidth using packets of data called cells which contain a fixed packet length. ATM is also known as "fast packet".

Also: Automated Teller Machines or banking computers made available to the public.

See also: bandwidth, packet

Attachment Unit Interface (AUI)

An IEEE 802.3 standard designation for the cable that connects workstations on a local area network.

See also: IEEE 802.x, workstation, network, Local Area Network (LAN)

authentication

The verification of the identity of a person or process. This is usually done through the use of software that sends a message to the remote computer requesting access to services asking for information about that computer, such as finger or ident. [Source: MALAMUD]

See also: finger, fingerd, identd.

Autonomous System (AS)

A collection of routers under a single administrative authority using a common Interior Gateway Protocol for routing packets.

See also: router, Interior Gateway Protocol (IGP), packet

backbone

The top level in a hierarchical network. Stub and transit networks which connect to the same backbone are guaranteed to be interconnected.

See also: stub network, transit network

bandwidth

Technically, the difference, in Hertz (Hz or cycles per second), between the highest and lowest frequencies of a transmission channel. For example, the average home stereo system has a bandwidth of about 16,000Hz (a range of 32Hz to about 16,000Hz), and the FM radio bandwidth is approximately 21MHz (from 88.1MHz to 108.6MHz). In networking, bandwidth is usually used to measure the amount of data that can be sent through a given communications circuit.

See also: baud

bang path

The series of machine names used to direct electronic mail from one user to another, typically by specifying an explicit UUCP path through which the mail is to be routed. The bang path of a given email message is usually shown in the message's header.

See also: [email address](#), [mail path](#), [UNIX to UNIX Copy Protocol \(UUCP\)](#), [header](#)

baseband

A transmission medium through which digital signals are sent without complicated frequency shifting (modulation). In general, only one communication channel is available at any given time. Ethernet is an example of a baseband network. [Source: NNSC]

See also: broadband, Ethernet

Basic Encoding Rules (BER)

Standard rules for encoding data units described in ASN.1. Sometimes incorrectly lumped under the term ASN.1, which properly refers only to the abstract syntax description language, not the encoding technique. [Source: NNSC]

See also: Abstract Syntax Notation One (ASN.1)

baud

Operational cycles per second in a communication network. This is often confused with *bytes per second* or *bits per second*. For practical purposes they have the same meaning but they do not refer to the same type of measurement; it's just a coincidence that the successful transmission of one bit of data was also a baud measurement. Bits per second on a serial connection is actually the baud *rate*. This term comes from J.M.E. Baudot (1845-1903), a French pioneer in printing telegraphy.

If in doubt, think of baud as the actual number of bits transferred or transferrable via *hardware* between the remote and host computer, and bits per second as the number of bits transferrable via *software*. Data compression techniques allow 14.4Kbaud modems to transfer up to 57.6Kbps of data, but remember that this data is *compressed*. The modem itself will only allow 14.4Kbps of data to pass through its hardware.

See also: [serial port communications](#), [bandwidth](#), [data compression](#), [V.xx](#)

Berkeley Internet Name Domain (BIND)

Implementation of a DNS server developed and distributed by the University of California at Berkeley. Many Internet hosts run BIND, and it is the ancestor of many commercial BIND implementations.

See also: [host](#), [server](#), [Domain Name System \(DNS\)](#)

Berkeley Software Distribution (BSD)

Implementation of the UNIX operating system and its utilities developed and distributed by the University of California at Berkeley. "BSD" is usually preceded by the version number of the distribution, e.g., "4.3 BSD" is version 4.3 of the Berkeley UNIX distribution. Many Internet hosts run BSD software, and it is the ancestor of many commercial UNIX implementations.

[Source: NNSC]

See also: [Linux](#), [UNIX](#)

BIFF

From USENET: The most famous pseudonym in netdom, and the prototypical newbie. Articles from BIFF are characterized by all uppercase letters sprinkled liberally with bangs, typos, "cute" misspellings (EVRY BUDY LUVS GOOD OLD BIFF CUZ HE"S A K00L DOOD AN HE RITES REEL AWESUM THINGZ IN CAPITULL LETTRS LIKE THIS!!!), use (and often misuse) of fragments of talk mode abbreviations, a long sig block (sometimes even a doubled sig), and unbounded naivete. BIFF posts articles using his elder brother's VIC-20. BIFF's location is a mystery, as his articles appear to come from a variety of sites. However, BITNET seems to be the most frequent origin. The theory that BIFF is a denizen of BITNET is supported by BIFF's (unfortunately invalid) email address: BIFF@BIT.NET.

1993: Now It Can Be Told! My spies inform me that BIFF was originally created by Joe Talmadge <jat@cup.hp.com>, also the author of the infamous and much-plagiarized "Flamer's Bible". The BIFF filter he wrote was later passed to Richard Sexton, who posted BIFFisms much more widely. Versions have since been posted for the amusement of the net at large. --- ESR] [Trivial source: The Jargon File 3.0.0]

See also: [filter](#), [BITNET](#), [flame](#)

big-endian

A format for storage or transmission of binary data in which the most significant bit (or byte) comes first. The term comes from "Gulliver's Travels" by Jonathan Swift. The Lilliputians, being very small, had correspondingly small political problems. The Big-Endian and Little-Endian parties debated over whether soft-boiled eggs should be opened at the big end or the little end. [Source: RFC1208]

See also: [little-endian](#)

binary synchronous communication (BSC)

The use of control characters and escape sequences (non-standard characters) for inter-station data transmission on a network.

See also: network

Birds Of a Feather (BOF)

A "Birds Of a Feather" (flocking together) is an informal discussion group. It is formed, often ad hoc, to consider a specific issue and, therefore, has a narrow focus.

Also: **Bottom of File**

See also: special interest group (SIG)

BITNET

"Because It's Time Network". BITNET was the antecedent to USENET and is still in use on the Internet for discussion groups primarily of an academic or professional nature, although it is not strictly part of the Internet. Many BITNET discussion groups (mailing lists) have been integrated into USENET.

Technically speaking, an academic computer network that provides interactive email and file transfer services, using a store-and-forward protocol, based on IBM Network Job Entry protocols. BITNET-II encapsulates the BITNET protocol within IP packets and depends on the Internet to route them.

See also: [mailing list](#), [USENET](#), [listserv](#).

bits per second (BPS)

Computer data transfer rate, usually used with telecommunications or networks. Bytes per second is the standard unit of measurement for data transfer between components on a stand-alone PC. Not to be confused with *baud*.

See also: baud, bandwidth

block

Used in general telecommunications; a group of bytes send as a unit, usually 128 bytes (normal packet size for Internet transmission) or 1024 bytes (normal packet size for BBS and online service file transfer).

See also: packet, bulletin board service (BBS), online service

BNC connector

Nicknamed the British National Connector, this is actually an acronym for Bayonet Neill-Cancelman. Originally designed in Great Britain for connecting TV antennas, it is now in common use as the standard connector for ARCnet and Ethernet network cables. The connector differs from standard North American TV coaxial cable in that the male locks onto the female by means of hooking two nubs on outer ring of the female connector.

See also: [ARCnet](#), [Ethernet](#), [coaxial](#), [network](#)

bookmark (hotlist)

A bookmark is a saved location on the Internet used to reference a specific document, or a URL saved to a file. Hotlist items are the same as bookmarks. The use of each of these terms depends on the individual program; hotlists are usually associated with NCSA Mosaic and bookmark with Netscape.

See also: Uniform Resource Locator (URL), browser, Mosaic, Netscape

BOOTP

The **Bootstrap Protocol**, described in RFCs 951 and 1084, is used for booting diskless nodes.

See also: [Request For Comments \(RFC\)](#), [Reverse Address Resolution Protocol \(RARP\)](#),
[protocol](#), [node](#), [node](#), [diskless workstation](#)

Border Gateway Protocol (BGP)

The Border Gateway Protocol is an exterior gateway protocol defined in RFCs 1267 and 1268. It's design is based on experience gained with EGP, as defined in STD 18, RFC 904, and EGP usage in the NSFNET Backbone, as described in RFCs 1092 and 1093.

See also: Exterior Gateway Protocol (EGP), National Science Foundation (NSF), Request For Comments (RFC), STD

bot

Short for robot. A (usually) C language script or program used on Internet Relay Chat as a means of performing automated functions. As IRC functions exclusively through the use of typed sentences, fairly simple scripts can emulate human behavior well enough to qualify as robots or "bots". Most IRC host sites do not permit bots to be used by anyone not directly associated with the institution responsible for the site, and the abuse of bots has been one of IRC's most troublesome problems for many years.

See also: [script](#), [Internet Relay Chat \(IRC\)](#)

bounce

The return of a piece of email to the sender because of a delivery error. Errors producing bounces can include everything from network difficulties such as temporary congestion to termination of the recipient's account.

See also: email, network

break

In telecommunications, refers to a signal sent to the remote computer, usually by pressing the Break key or Control-C, that stops the current task being run on the remote computer.

On IBM-compatibles, it usually refers to a temporary pause in a program so that it may be debugged, or a halt to the program itself. The Pause/Break key doesn't actually accomplish these feats on its own; in most cases the user is required to press Control-Break.

See also: remote access server (RAS).

breakout box (BOB)

Tool for determining faulty circuits in network hardware

Also **Bob!**: Microsoft software package and deprecating hacker slang: brainless; a reference to Microsoft Bob, an entry-level applications package designed for computerphobes which many industry watchers felt was insulting to most users. As in: "you ought to see the interface I designed for my coworkers...I really had to Bob it for them".

See also: network

bridge

A device which forwards traffic between network segments based on datalink layer information. These segments would have a common network layer address. Bridges monitor all traffic on the two subnetworks that they link together. A computer or workstation can be dedicated for use exclusively as a bridge between the subnets.

See also: layer, OSI Reference Model, gateway, router, workstation

broadband

A transmission medium capable of supporting a wide range of frequencies. It can carry multiple signals by dividing the total capacity of the medium into multiple, independent bandwidth channels, where each channel operates only on a specific range of frequencies.

See also: [baseband](#), [bandwidth](#)

broadcast

A special type of multicast packet which all nodes on the network are always willing to receive.

See also: broadcast storm, multicast, node, packet

broadcast storm

An incorrect packet broadcast onto a network that causes multiple hosts to respond all at once, typically with equally incorrect packets which causes the storm to grow exponentially in severity.

See also: [packet](#), [broadcast](#), [Martian](#), [worm](#)

brouter

A device which bridges some packets (i.e., forwards based on datalink layer information) and routes other packets (i.e., forwards based on network layer information). The bridge/route decision is based on configuration information.

See also: [bridge](#), [router](#), [packet](#), [layer](#), [OSI Reference Model](#)

browser

Software designed for the purpose of examining the contents of files, usually text or table data, in an understandable fashion. Commonly refers to Web browser, or World Wide Web browsing tool, although it can mean anything from a program designed for reading text files to a viewer for graphical images.

See also: Netscape, Mosaic.

bulletin board system (BBS)

A computer configured with software designed to provides electronic messaging, file archives, games and any other services via a dialup connection not requiring network configuration. Usually "theme-based" or oriented to a specific interest. Although BBS's have traditionally been the domain of hobbyists, an increasing number of BBS's are now connected directly to the Internet via the TELNET protocol, and many BBS's are currently operated by government, educational, and research institutions.

See also: online service, email, Internet, dialup, archive, USENET, TELNET

Byte Information Exchange (BIX)

BIX is an online information service designed for readers of Byte! Magazine which was quite popular in the late 1980s and survives to this day.

See also: [online service](#)

campus-wide information system (CWIS)

A CWIS makes information and services publicly available on campus via kiosks, and makes interactive computing available via kiosks, interactive computing systems and campus networks. Services routinely include directory information, calendars, bulletin boards, databases.

See also: bulletin board system (BBS)

carbon copy (Cc), blind carbon copy (Bcc)

Part of an email message header that describes who else is receiving a given message. Carbon copy signifies that the email addresses shown here are also receiving copies of the message; Blind carbon copy signifies the other parties receiving copies of the message, however all recipients are "blind" to the fact that they are receiving duplicate copies of the message.

See also: [post](#), [email](#), [header](#)

carrier

In telecommunications, a tone or audio wave, of fixed frequency and amplitude used as base signal for carrying information. Data is encoded into this carrier wave by *modulation*.

See also: baseband, broadband

Carrier-Sense Multiple Access/Collision Detection **(CSMA/CD)**

A method for accessing networks that allows any user to contact any other without the need for a central message-distributing (server or router) computer.

See also: [network](#), [server](#), [router](#)

Cello

One of the first competent World Wide Web browsers for Windows. Released late in 1993 by Thomas Bruce at Cornell University's Legal Information Institute and never seriously supported, it was probably the first Windows Web browser designed for serious Internet use and featured some very advanced features for its day. By mid-1995 it looked like a dinosaur compared to newer browsers such as NCSA's Mosaic and Netscape.

See also: [browser](#), [Netscape](#), [Mosaic](#)

[Center for Innovative Computer Applications \(CICA\)](#)

Located at the University of Indiana, this computing research center is best known as the home of the **CICA Windows Archive**, the most complete and best-maintained Windows software archive on the Internet in 1994/95. Mirrored at several sites around the world, CICA has practically become synonymous with Windows software on the Internet, in spite of the fact that the SimTel Windows archive is actually better-organized for World Wide Web users in particular and by the time you read this, may actually have a larger database.

See also: [file transfer protocol \(FTP\)](#), [SimTel](#), [mirror](#).

Chameleon (Netmanage)

Netmanage's Chameleon was one of the first "Internet suites" for Windows, incorporating a Web browser, FTP, TELNET, newsreader and more into an integrated package that included a winsock. At a list price of \$300, it didn't gain nearly the market share of Internet-in-a-Box, but its winsock, which was far more reliable than Trumpet's earlier releases, became the winsock of choice of many dialup SLIP/PPP providers.

See also: Trumpet, Internet-in-a-Box, file transfer protocol (FTP), TELNET, newsreader, Internet-in-a-Box, winsock Serial Line Internet Protocol (SLIP), Internet service provider (ISP)

channel

Channels are to Internet Relay Chat what directories are to a hard disk. Users are the "files". Individuals may converse without being on a channel, but group chat is only possible when one has entered a channel.

See also: [Internet Relay Chat \(IRC\)](#).

checksum

A computed value which is dependent upon the contents of a packet. This value is sent along with the packet when it is transmitted. The receiving system computes a new checksum based upon the received data and compares this value with the one sent with the packet. If the two values are the same, the receiver has a high degree of confidence that the data was received correctly. [Source: NNSC]

Also used in normal computing for determining the integrity of a file; files whose checksums do not match the expected figure as set when the file was first created or installed are considered to be altered. This makes checksums useful for determining potential virus infections and which files to include in a backup.

See also: virus, CRC, XMODEM, packet

circuit switching

A communications paradigm in which a dedicated communication path is established between two hosts, and on which all packets travel. The telephone system is an example of a circuit switched network.

See also: host, connection-oriented, connectionless, packet switching

Clarkson drivers

Software designed to allow Novell Netware users to connect to the Internet, originally developed at Clarkson University. The drivers themselves are available free of charge.

See also: Netware

client

A computer system or process that requests a service of another computer system or process. A workstation requesting the contents of a file from a file server is a client of the file server. [Source: NNSC] Also a program which processes data retrieved from a remote system, or the purchaser of online access services.

See also: client-server model, server, Internet service provider (ISP), online service

client-server model

A common way to describe the paradigm of many network protocols. Examples include the name-server/name-resolver relationship in DNS and the file-server/file-client relationship in NFS.

See also: client, server, network, protocol, file server, Domain Name System (DNS), Network File System (NFS)

Clipper chip

One of the most feared devices in existence. This chip, a data encryption device developed by the US National Security Agency, was intended for use in virtually every telephone and computer in the US. The idea was to allow data transmissions to be monitored at will from virtually anywhere by virtually anyone.

The so-called safeguards against abuse consisted of the sharing of possession of the two needed decryption keys by the National Institutes of Standards and Technology and the Department of the Treasury, and only a "legal authority" would be able to join the keys. It was an extremely controversial topic in 1994 and pretty much dropped from public attention in 1995.

The mere thought that such a proposal was being seriously considered by the US government struck fear and rage into the hearts of literally hundreds of thousands of Internet users, and was responsible for uncounted megabytes of USENET postings in 1993/94.

See also: [National Security Agency \(NSA\)](#), [encryption](#), [NSA line eater](#), [USENET](#)

Coalition for Networked Information (CNI)

A consortium formed by American Research Libraries, CAUSE, and EDUCOM to promote the creation of, and access to, information resources in networked environments in order to enrich scholarship and enhance intellectual productivity.

See also: campus-wide information services (CWIS), European Center for Particle Physics (CERN)

coaxial cable (COAX)

Connecting wire between terminals and controllers/computers; also used for TV cable and home and professional video. Cabling usually consists of a single strand of high-density copper wire in the center surrounded by a shield, which is then surrounded by a sheath or weave of conductive material (usually metal or metallic plastic) and then surrounded by a second shield. This allows the central core wire to be completely shielded by the second layer of conductive material and thus makes the signal conducted through the cable far less susceptible to distortion from external signals.

See also: twisted pair, 10baseT

coaxial-to-twisted-pair adapter (CTPA)

A device for inter-computer communication that uses twisted-pair telephone wire; used in connecting Ethernet/ARCnet networks.

See also: coaxial, 10baseT, Ethernet, ARCnet

Comite Consultatif International de Telegraphique et Telephonique (CCITT)

Consultative Committee For International Telephony And Telegraphy (CCITT) This organization is part of the United National International Telecommunications Union (ITU) and is responsible for making technical recommendations about telephone and data communications systems. Every four years CCITT holds plenary sessions where they adopt new standards; the most recent was in 1992. [Source: NNSC]

See also: STD. V.xx

Common Gateway Interface (CGI)

The Common Gateway Interface, or CGI, is an interface for running external programs, or gateways, under an information server. Currently, the supported information servers are HTTP servers. CGI allows users on the World Wide Web to access programs of all types on remote systems as if they were actually using the remote computer themselves. The most common programming languages used with CGI are Perl, used mainly on the UNIX platform; and Visual Basic, used primarily with Windows in its various flavors. CGI is a scripting method used to address specific functions of interpreted languages such as BASIC and Perl without the need for compiling a program for the purpose.

See also: [Perl](#), [Hypertext Markup Language \(HTML\)](#), [Hypertext Transport Protocol \(HTTP\)](#)

CompuServe Information Services

One of the oldest and certainly the most venerable of the commercial online services, CompuServe has boasted the largest subscribership of any American commercial online service for years. Like America Online, CompuServe came under fire from veteran Internet users for opening a net gateway through CIS with what was looked upon as less than an ideal introduction to Internet customs and behavior.

See also: [online service](#), [GEnie](#), [America Online](#)

Computer Emergency Response Team (CERT)

The CERT was formed by DARPA in November 1988 in response to the needs exhibited during the Internet worm incident. The CERT charter is to work with the Internet community to facilitate its response to computer security events involving Internet hosts, to take proactive steps to raise the community's awareness of computer security issues, and to conduct research targeted at improving the security of existing systems. CERT products and services include 24-hour technical assistance for responding to computer security incidents, product vulnerability assistance, technical documents, and tutorials. In addition, the team maintains a number of mailing lists (including one for CERT Advisories), and provides an anonymous FTP server, at "cert.org", where security-related documents and tools are archived. The CERT may be reached by email at "cert@cert.org" and by telephone at +1-412-268-7090 (24-hour hotline).

See also: Defense Advance Research Projects Agency (DARPA), worm

congestion

A network term referring to the condition of greater demand for data transmission than the data communication path can handle.

connection-oriented

The data communication method in which communication proceeds through three well-defined phases: connection establishment, data transfer, connection release. TCP is a connection-oriented protocol.

See also: circuit switching, connectionless, packet switching, Transmission Control Protocol (TCP).

connectionless

The data communication method in which communication occurs between hosts with no previous setup. Packets between two hosts may take different routes, as each is independent of the other. UDP is a connectionless protocol.

See also: circuit switching, connection-oriented, packet switching, User Datagram Protocol (UDP)

cookie

A handle, transaction ID, or other token of agreement between cooperating programs. "I give him a packet, he gives me back a cookie." The claim check you get from a dry-cleaning shop is a perfect mundane example of a cookie; the only thing it's useful for is to relate a later transaction to this one (so you get the same clothes back). [Source: The Jargon File 3.0.0]

See also: packet, token ring

Coordinating Committee for Intercontinental Research Networks (CCIRN)

A committee that includes the United States FNC and its counterparts in North America and Europe. Co-chaired by the executive directors of the FNC and the European Association of Research Networks (RARE), the CCIRN provides a forum for cooperative planning among the principal North American and European research networking bodies. [Source: MALAMUD]

See also: Federal Networking Council, RARE

core gateway

Historically, one of a set of gateways (routers) operated by the Internet Network Operations Center at Bolt, Beranek and Newman (BBN). The core gateway system formed a central part of Internet routing in that all groups must advertise paths to their networks from a core gateway. [Source: MALAMUD]

See also: router, gateway

Corporation for Research and Educational Networking (CREN)

This organization was formed in October 1989, when BITNET and CSNET (Computer + Science NETWORK) were combined under one administrative authority. CSNET is no longer operational, but CREN still runs BITNET. [Source: NNSC]

See also: [BITNET](#)

cracker

A cracker is an individual who attempts to access computer systems without authorization. These individuals are often malicious, as opposed to hackers, and have many means at their disposal for breaking into a system. The term was coined circa. 1985 by hackers in defense against journalistic misuse of the term "hacker".

Also refers to hackers who attempt to break copy-protection and registration schemes in software, as in "This new game was cracked to work without registering it". Also refers to software used in the software cracking process.

See also: hacker, Computer Emergency Response Team, SATAN, trojan horse, virus, worm

cross-post

To post a single article simultaneously to several different newsgroups. Usually permissible providing the subject matter of the different newsgroups is not too similar.

See also: [post](#), [USENET](#), [spam](#)

CSDS

Circuit switched digital services

CUAI

Common user access interface

cyberspace

Several related meanings: any simulated environment involving two or more people in different geographical locations.

Also: the entire computer cosmosphere including Internet, video games and any other environment which synthesizes or simulates reality or an alternate reality.

Also: the void into which lost data disappears, most frequently used to refer to the final resting place for lost email and news.

Also: a totally synthetic/virtual reality experience as proposed by many science fiction writers.

See also: [Virtual Reality Modelling Language \(VRML\)](#)

cyclic redundancy check (CRC)

A number derived from a set of data that will be transmitted. By recalculating the CRC at the remote end and comparing it to the value originally transmitted, the receiving node can detect some types of transmission errors. [Source: MALAMUD] CRCs are also used on stand-alone computers to check the integrity of individual files, usually as a method of virus detection.

See also: CRC, node, checksum, virus

Cypherpunks

A loosely-knit group of Internet security hackers best known for their promotion and maintenance of anonymous remailer sites, and more recently for their efforts in helping debug new Internet commerce systems allowing secure product payment schemes on the Internet.

See also: [anonymous remailer](#), [secure commerce](#)

data byte

The standard for a byte in computing terms is eight bits, but this figure is somewhat flexible, especially in terms of telecommunications. The number of bits in a data byte is *usually* eight but occasionally seven. CompuServe is the best-known online service who is or was using a seven-bit data byte for serial transmission.

See also: CompuServe, serial port communications

Data compression

Data compression is the process of reducing the storage requirements of data through the use of algorithms and mathematical formulae while still leaving the data useful. Compressed data is uncompressed using software designed for the task when the data is needed by the system.

Data compression is used primarily to reduce disk space requirements for data so that it can be archived in less physical space, but more recently the growth of the Internet has made reduced transmission time at least as important.

Two classes of compression

There are two basic classes of data compression: **lossy** and **lossless**. Lossy compression reduces the level of detail in the data being compressed and provides no facility for restoring that lost detail at a later date. It is used primarily with audio and video data where some loss of detail can be tolerated for the sake of reduced space requirement or transmission time. JPEG, GIF and MPEG are examples of lossy compression.

Lossless compression stores all information about the data being compressed so that it can be restored to its complete, unaltered original form at a later date. PKZIP, Doublespace/Stacker and compressed backup sets are examples of lossless compression.

Several types of compression

Compression can either be performed on individual files, multiple files (also known as archiving) or whole areas of a disk or other storage medium (also known as disk compression).

Data compression often refers to a method of compressing data for transmission over telecommunications circuits such as modems. Most modems have data compression software encoded directly into their chips, and the use of this software, which is usually recommended for modem communications, allows modems to send and receive data at much higher than their advertised baud rate. Using data compression, a 28.8kbaud modem can send and receive even files which have already been compressed at a rate of up to 35 kbaud, and send and receive text at up to 115kbaud.

See also: [archive](#), [JPEG](#), [MPEG](#), [Graphics Interchange Format \(GIF\)](#), [V.xx](#), [PKZIP](#)

[<< Last topic](#)

data encryption key (DEK)

Used for the scrambling or encoding of message text and for computing the integrity of a given message for purposes of security against viral infection or tampering.

See also: encryption, Pretty Good Privacy (PGP), CRC, virus

Data Encryption Standard (DES)

A popular standard encryption scheme used by security software, most notably Pretty Good Privacy, which is a current standard for private data encryption on the Internet.

See also: [encryption](#), [Pretty Good Privacy \(PGP\)](#)

datagram

A self-contained, independent entity of data carrying sufficient information to be routed from the source to the destination computer without reliance on earlier exchanges between this source and destination computer and the transporting network. [Source: J. Postel]

See also: frame, packet

data terminal emulation (DTE)

The ability of a terminal to mimic the characteristics of a specific terminal type, or the specific type of emulation offered or required by a terminal, for example: "When logging into The Baby BBS, set DTE to VT-100."

See also: VT100, terminal, bulletin board system (BBS), terminal emulation

DCE

Data Communication Equipment; Data Circuit-terminating Equipment; Distributed Computing Environment

DECnet

A proprietary network protocol designed by Digital Equipment Corporation. The functionality of each Phase of the implementation, such as Phase IV and Phase V, is different.

See also: Digital Equipment Corp. (DEC)

DECUS

Digital Equipment Corporation Users' Society: one of the most ardent computer users' groups in North America.

See also: Digital Equipment Corp. (DEC), special interest group (SIG)

dedicated line, leased line

A telephone, cable or other form of landline used 100 percent of the time for telecommunications. Many computer enthusiasts, and virtually all hobby bulletin board system operators, maintain a dedicated line for their computers.

A leased line differs from a dedicated line in that a dedicated line may be used to connect to several different remote locations whereas a leased line generally connects only to one.

When telephone systems become universally equipped for high-speed digital data transmission (probably by the end of the century), it is expected that dedicated lines will become the norm in middle-class homes.

See also: Integrated Services Digital Network (ISDN), landline, bulletin board system (BBS).

default route

A routing table entry which is used to direct packets addressed to networks not explicitly listed in the routing table. [Source: MALAMUD]

See also: [packet](#), [router](#)

Defense Advanced Research Projects Agency (DARPA)

An agency of the US Department of Defense responsible for the development of new technology for use by the military. DARPA (formerly known as ARPA) was responsible for funding much of the development of the Internet we know today, including the Berkeley version of UNIX and TCP/IP. [Source: NNSC]

See also: ARPANET, Berkeley Software Distribution (BSD), TCP/IP

Defense Data Network (DDN)

A global communications network serving the US Department of Defense composed of MILNET, other portions of the Internet, and classified networks which are not part of the Internet. The DDN is used to connect military installations and is managed by the Defense Information Systems Agency.

See also: [Defense Information Systems Agency](#)

Defense Data Network Network Information Center (DDN NIC)

Often called "The NIC" in earlier times (this nickname is now usually used to refer to InterNIC), the DDN NIC's primary responsibility is the assignment of Internet network addresses and Autonomous System numbers, the administration of the root domain, and providing information and support services to the DDN. It is also a primary repository for RFCs.

See also: Autonomous System (AS), network address, Internet Registry, Network Information Center (NIC), Request For Comments (RFC)

Defense Information Systems Agency (DISA)

Formerly called the Defense Communications Agency (DCA), this is the government agency responsible for managing the DDN portion of the Internet, including the MILNET. Currently, DISA administers the DDN, and supports the user assistance services of the DDN NIC.

See also: [Defense Data Network](#), [InterNIC](#)

dialup

A temporary, as opposed to dedicated, connection between machines established over a standard phone line.

See also: dedicated line, modem, Serial Line Internet Protocol (SLIP), Point to Point Protocol (PPP)

Digital Equipment Corporation (DEC)

American high-tech giant primarily known as a manufacturer of high-end business computer systems used in networks. DEC has been responsible for a large number of computing firsts over several decades, including the legendary PDP-series minicomputers on which an enormous number of important computing developments first appeared.

Directory Access Protocol

X.500 protocol used for communication between a Directory User Agent and a Directory System Agent. [Source: MALAMUD]

See also: X.500, Directory User Agent, Directory System Agent.

Directory System Agent (DSA)

The software that provides the X.500 Directory Service for a portion of the directory information base. Generally, each DSA is responsible for the directory information for a single organization or organizational unit. [Source: RFC1208]

See also: X.500, Directory User Agent, Directory Access Protocol

Directory User Agent (DUA)

The software that accesses the X.500 Directory Service on behalf of the directory user. The directory user may be a person or another software element. [Source: RFC1208]

See also: X.500, Directory System Agent, Directory Access Protocol

diskless workstation

A workstation with no local storage. A diskless workstation might have a monitor, keyboard and mouse, and even a large amount of RAM memory and a printer, but will store its data on a central file server. Usually used as a security measure in large firms, but unfortunately such workstations become useless if the network goes down.

See also: workstation, file server

Distributed Computing Environment (DCE)

An architecture of standard programming interfaces, conventions, and server functionalities (e.g. naming convention, distributed file system, remote procedure call) for distributing applications transparently across networks of heterogeneous computers. Promoted and controlled by the Open Software Foundation (OSF), a consortium led by Digital, IBM and Hewlett Packard. [Source: RFC1208]

See also: Network File System (NFS), Digital Equipment Corp. (DEC)

distributed database

A collection of several different data repositories that looks like a single database to the user. A prime example in the Internet is the Domain Name System. The World Wide Web can also be thought of as the world's largest distributed database.

See also: Domain Name System (DNS), World Wide Web (WWW/W3)

distributed function terminal (DFT)

A computer terminal with keyboard codes processed at the terminal as opposed to at the controller or host computer.

See also: [terminal](#), [host](#)

DIX connector

DIX is an acronym for DEC-Intel-Xerox (codevelopers of the standard). The device is a 15-pin connector used on a network interface card. Ethernet Local Area Network interface cards have two cable connectors, not one: a DIX connector and a BNC connector, of which only one can be used. The BNC connector uses the card's own internal circuitry while the DIX connector uses an external transceiver to manage data flow.

See also: Digital Equipment Corp. (DEC), BNC connector, Ethernet, Local Area Network (LAN)

DOD

Department Of Defense (US)

domain

"Domain" is a heavily overused term in the Internet. It can be used in the Administrative Domain context, or the Domain Name context.

See also: Administrative Domain, Domain Name System (DNS)

domain expert (DE)

Person with particular expertise in the domain of the expert system being developed

Domain Name System (DNS)

The DNS is a general purpose distributed, replicated, data query service. The principal use is the lookup of host IP addresses based on host names. The style of host names now used in the Internet is called "domain name", because they are the style of names used to look up anything in the DNS. It is defined in STD 13, RFCs 1034 and 1035. DNS is also incorrectly used to denote Domain Name Server (correct: DNS server)

See also: Fully Qualified Domain Name, top-level domain, IP address, Request For Comments (RFC), STD

door

Generally used to refer to BBS' and TELNET sites. Doors usually refer to programs designed to offer system users a choice of activities on the host system. For example, an average bulletin board might offer games, file downloads and uploads, and local messaging. All of these services might need to be accessed through separate door software.

See also: bulletin board system (BBS), online service, download and upload

dot address (dotted decimal notation)

Dot address refers to the common notation for IP addresses of the form A.B.C.D; where each letter represents, in decimal, one byte of a four byte IP address. Bytes in a dot address can contain up to three digits. [Source: FY14]

See also: [IP address](#)

dot file

A file on a UNIX public-access system which begins with a dot character instead of a letter or number that alters the way you or your messages interact with that system. For example, your .login file contains various parameters for such things as the text editor you use when you create a message. [Source: EFF's Guide to the Internet]

See also: [.plan file](#), [UNIX](#)

download/upload

Refer to the process of copying a file from a host system to another computer or medium. There are several different methods, or protocols, for downloading files in telecommunications, most of which periodically check the file as it is being copied to ensure no information is inadvertently destroyed or damaged during the process. Some, such as XMODEM, only let you download one file at a time. Others, such as batch-YMODEM and ZMODEM, let you type in the names of several files at once, which are then automatically downloaded.

Transferring newsgroups and email messages is also referred to as downloading; as is transferring data from one source to another, for example downloading files for backup to a floppy disk.

See also: file transfer, USENET, XMODEM, file transfer protocol (FTP), UNIX to UNIX Copy Protocol (UUCP)

DS-1

A framing specification for T-1 synchronous lines.

See also: frame, asynchronous communication, T-1

DS-3

A framing specification for T-3 synchronous lines.

See also: frame, asynchronous communication, T-3

dumb terminal

A keyboard/monitor combination offering no on-screen editing or direct ability to configure or program the host computer.

See also: [terminal emulation](#), [data terminal emulation \(DTE\)](#)

duplex, simplex

Refers to how characters, audio or video data are transmitted and received. Full duplex allows both parties to communicate simultaneously. Half duplex allows a choice of either reception or transmission at a given moment, not both. Simplex allows only one-way transmission. This can be configured in software, but for telecommunications through network connections, whether through text, audio or audiovisual, the hardware must be also be capable of a full duplex transceiving method.

See also: [Internet Phone](#)

dynamic adaptive routing

Automatic rerouting of traffic based on a sensing and analysis of current actual network conditions. Refers to the way the Internet and other networks configure themselves "on the fly" to deal with new, difficult or unusual situations.

See also: router, network, congestion

dynamic addressing

A means of assigning addresses to network hardware addresses whose usership changes. Used primarily with dialup SLIP/PPP accounts to assign network addresses usually based on the modem number the provider assigns to the particular modem the client connects with. Since neither user nor host will normally guarantee a specific modem to a specific client, dynamic addressing is used to permit changes to the hardware address each time a new user logs into the network on a given modem or hardware connection.

See also: Serial Line Internet Protocol (SLIP), Point to Point Protocol (PPP), IP address, dialup

Ebone

A pan-European backbone service.

echo

ECHO is a DOS command used in batch file programming and command line processing. Characters that appear on your screen from your computer are said to be echoed.

Also: in telecommunications, echo is the setting that determines whether the user's computer waits for the remote computer to send what is typed back to the user's screen, or whether the user's computer will be responsible for displaying what is typed. The preferred method is local echo.

See also: local echo

electronic data interchange (EDI)

A major problems with email is the difficulty of connecting different systems together so that common or shared information, such as data inserted into forms can be accessed without having to filter out the form's contents itself. Electronic data interchange refers to the process of attempting to solve these problems.

See also: email, MHS, X.400, Government OSI Profile (GOSIP)

Electronic Frontier Foundation (EFF)

A foundation established in 1985 by Richard Stallman to address social and legal issues arising from the impact on society of the increasingly pervasive use of computers as a means of communication and information distribution. Publishers of EFFector, a monthly electronic newsletter on social, legal and ethical issues concerning computers; and "EFF's Guide to the Internet" (formerly "The Big Dummy's Guide to the Internet").

See also: American Civil Liberties Union (ACLU), Free Software Foundation (FSF)

electronic mail (email)

A system whereby a computer user can exchange messages with other computer users (or groups of users) via a communications network. Electronic mail is one of the most popular uses of the Internet. [Source: NNSC]

See also: Simple Mail Transport Protocol (SMTP), Post Office Protocol (POP), header, signature, flame, listserv, MAPI

EMACS

From **Editing MACroS**, the loved/despised programmable text editor which contains a complete LISP language, originally written by Richard Stallman at MIT and used mainly by programmers; versions are available on every computer platform.

See also: [Electronic Frontier Foundation](#).

email address

The domain-based or UUCP address that is used to send electronic mail to a specified destination. For example one editor's address is "gmalin@xylogics.com". [Source: ZEN]
(Editor's note: the preceding email address was altered to protect the privacy of the contributor.)

See also: bang path, mail path, UNIX to UNIX Copy Protocol (UUCP)

Emoticon :-) (smiley)

This odd symbol is one of the ways a person can portray "mood" in the very flat medium of computers--by using "smiley faces". This is "metacommunication", and there are literally hundreds of such symbols, from the obvious to the obscure. This particular example expresses "happiness". Don't see it? Tilt your head to the left 90 degrees. Smiles are also used to denote sarcasm, but more often with a semicolon "winkie", as in ;-). [Source: ZEN]

See the [Emoticons list](#) for a sampling of 250 emoticons, which is usually about 200 more than most people can handle.

See also: [email](#), [Internet Relay Chat \(IRC\)](#), [talk](#)

encapsulation

The technique used by layered protocols in which a layer adds header information to the protocol data unit (PDU) from the layer above. As an example, in Internet terminology, a packet would contain a header from the physical layer, followed by a header from the network layer (IP), followed by a header from the transport layer (TCP), followed by the application protocol data. [Source: RFC1208]

See also: layer, OSI Reference Model, packet, protocol, header

encryption

Refers to the manipulation of a file or packet's data in order to prevent anyone but the intended recipient from reading or using that data. There are many types of data encryption, and data encryption comprises the basis of network security.

See also: Data Encryption Standard (DES), Pretty Good Privacy (PGP), secure commerce, Kerberos, PKZIP

end of block (EOB)

Character representing end of line/block of information in NC program tape; still in use in some disk-based operating systems.

EOF

End Of Field: refers to the end of a given field of data.

Also: **End of File**, a character or text abbreviation tagged onto the end of a file to alert some programs to cease processing at this point.

Eris Free Network (EFNet), Undernet

The largest of the Internet Relay Chat networks, with up to 12,000 users at any given moment during peak hours and an estimated 100,000-200,000 daily users.

Undernet is a much smaller network that sprang up in the early 1990s in response to what many felt was EFNet's overgrowth. It typically has one-fifth the usership of EFNet and consequently fewer of the problems EFNet suffers.

See also: [flood](#), [lag](#), [bot](#), [Undernet](#), [Internet Relay Chat \(IRC\)](#)

Error 404

A common message on the World Wide Web, loosely translates as "file not found". The 404 refers to the error number assigned to this particular problem in the original development of the Web's specification. Any link or URL returning Error 404 was either misspelled when posted or the file has been removed from the remote computer.

See also: [World Wide Web \(WWW/W3\), link, Uniform Resource Locator \(URL\)](#)

Ethernet

A 10-Mb/s standard for LANs, initially developed by Xerox, and later refined by **DEC, Intel and Xerox (DIX)**. All hosts are connected to a coaxial cable where they contend for network access using a Carrier Sense Multiple Access with Collision Detection (CSMA/CD) paradigm.

See also: coaxial cable, CSMA/CD, 802.x, Local Area Network (LAN), token ring

Ethernet meltdown

An event that causes saturation, or near saturation, on an Ethernet network. It usually results from illegal or misrouted packets and typically lasts only a short time. [Source: COMER]

See also: Ethernet, packet, Martian, worm

Eudora

Developed by Jeff Beckley and commercially distributed originally by Qualcomm and now by Quest, Eudora was the most widely-used Internet email program in the world in 1994/95, and "eudora" almost became synonymous with email for millions of new Internet users on the Windows and Macintosh platforms. Featuring an extremely simple layout and quick configuration with few frills, it was and remains an ideal entree to email for novice Internet users. Its popularity was insured by Beckley's release of the program in two forms: a basic, no-frills model which was "postcardware" (in order to legally register your license, you are required to send the author a postcard of your home town), and a commercial version featuring a spelling checker and other options.

See also: [email](#), [client](#), [freeware](#)

European Academic and Research Network (EARN)

A network connecting European academic and research institutions with email and file transfer services using the BITNET protocol. Best known to the average user as publishers of "A Guide to Network Resource Tools", a superb introduction and tutorial for accessing the many Internet databases.

See also: BITNET

European Center for Particle Physics (CERN)

Birthplace of the World Wide Web. A high-tech center in Berne, Switzerland engaged in the study of particle physics, CERN is better-known for developing and implementing the first set of standards for the World Wide Web and the first software for utilizing its resources (LineMode Browser). Originally intended as a means of easily networking academic documents related to the fields CERN was working in, the Web has since evolved into the most popular service on the Internet and much of the management of the Web has now passed from CERN to World Wide Web Consortium.

See also: World Wide Web (WWW/W3) Consortium (W3C), World Wide Web (WWW/W3), LineMode Browser, browser

Extended Binary Coded Decimal Interchange Code (EBCDIC)

A standard character-to-number encoding system used primarily by IBM computer systems. Also refers to the character set (alphabet) used by UNIX-compatible operating systems. Most personal computers use the ASCII character set.

See also: ASCII, UNIX.

extended four-letter acronym (EFLA)

A recognition of the fact that there are far too many TLAs. [Source: K. Morgan]

See also: three-letter acronym.

Exterior Gateway Protocol (EGP)

A protocol which distributes routing information to the routers which connect autonomous systems. The term "gateway" is historical, as "router" is currently the preferred term. There is also a routing protocol called EGP defined in STD 18, RFC 904.

See also: Autonomous System (AS), Border Gateway Protocol (BGP), Interior Gateway Protocol (IGP)

external data representation (XDR)

A standard for machine independent data structures developed by Sun Microsystems and defined in RFC 1014. It is similar to ASN.1. [Source: RFC1208]

See also: Sun Microsystems, Request For Comments (RFC), Abstract Syntax Notation One (ASN.1)

external protocol

Software which is made available to but not included with a telecommunications program so that it can communicate with other machines using the same protocol. ZMODEM is an external protocol to many telecommunications programs, and Kermit is an external dialup protocol for many institutional Internet sites.

See also: Kermit, protocol, ZMODEM

fake username

Malignant hackers with sufficient skill can create phony identities for themselves on the Internet, and there have been hundreds if not thousands of incidents stemming from this behavior. Fake username can refer to either a phony Internet identity or the act of creating or using a phony ID. If security on the hacker's host system is not sufficient to allow for identification of the user, it is possible for a hacker to completely fool anyone into believing they are someone else.

See also: [identd](#), [hacker](#), [cracker](#)

FARNET

A non-profit corporation, established in 1987, whose mission is to advance the use of computer networks to improve research and education.

facsimile (FAX)

An ancient form of communication in computing terms, traceable to 1842 when Scottish inventor Alexander Bain developed a machine for transmitting simple images over short-distance telephone connections. Facsimile transmission is, as it might seem, transmission of a facsimile of the original document over a phone line or other networked data connection.

Most modern FAX transfer is done with stand-alone FAX units which are essentially baby photocopiers. They include scanners for creating digital images of the documents to be transmitted and printing facilities for creating hard copies of the documents received.

This trend is expected to be reversed by the end of 1996 as virtually all new modems come equipped with facilities for sending and receiving FAX and more and more document processing is being done on computers rather than by hand or with typewriters.

See also: [CCITT, FAX/modem](#)

Federal Information Exchange (FIX)

One of the connection points between the American governmental internets and the Internet.
[Source: SURA]

Federal Networking Council (FNC)

The coordinating group of representatives from those federal agencies involved in the development and use of federal networking, especially those networks using TCP/IP and the Internet. Current members include representatives from the Department of Defense, DARPA, the National Science Foundation, the National Aeronautics and Space Administration and others.

See also: Defense Advance Research Projects Agency (DARPA), National Science Foundation (NSF)

Fiber Distributed Data Interface (FDDI)

A high-speed (100Mb/s) LAN standard. The underlying medium is fiber optics, and the topology is a dual-attached, counter-rotating token ring. [Source: RFC1208]

See also: [topology](#), [Local Area Network \(LAN\)](#), [token ring](#)

FidoNet

A worldwide hobbyist network of personal computers which exchanges mail, discussion groups, and files. Founded in 1984 and originally consisting only of IBM PCs and compatibles, FidoNet now includes such diverse machines as Apple][and Macintosh systems, Ataris, Amigas, and UNIX systems. Although much younger than USENET, by early 1991 it comprised a significant fraction of USENET's size and covered some 8,000 systems. Still used as a way for remote communities without direct Internet access to send and receive email on the Internet. [Source: The Jargon File 3.0.0]

FidoNet is not available from most Internet providers unless they also provide local BBS services, but Internet users can exchange email with FidoNet users.

See also: UNIX, USENET, bulletin board system (BBS), email

file server

The computer on a network assigned to the task of being a central storage site for all or most of the data used by workstations connected to it. Use of a dedicated file server allows a company to invest in one high-performance computer for this job and many medium-range computers for individual workstations. Performance is further increased by having the file server not perform other applications such as database management or spreadsheet work.

See also: server, Network File System (NFS), workstation, bridge

file transfer

The process of copying of a file from one computer to another over a computer network connection.

See also: file transfer protocol (FTP), Kermit, XMODEM, download

File Transfer Protocol (FTP)

A protocol which allows a user on one host to access, and transfer files to and from, another host over a network. Additionally, with command-line interfaces such as DOS and UNIX, FTP is usually the name of the program the user types to execute the protocol. It is defined in STD 9, RFC 959.

See also: [UNIX](#), [protocol](#), [anonymous FTP](#), [download](#)

filter

A piece of software designed to scan data, determine what parts of the data are useful for the task at hand, and reject the rest. When used with processing text, for example, a filter can be used to remove printer codes and other stray characters from a file so that it can be easily read onscreen. In telecommunications, filters are often used for email to reject unwanted email based on characters occurring in email (e.g. filtering a specific email address would prevent all email from a specific person from showing up in one's mailbox). Wildcards and default file extensions used in Windows dialog boxes are forms of filtering.

See also: [email](#)

finger

A program that displays information about a particular user, or all users, logged on the local system or on a remote system. It typically shows the user's full name, the time they last logged in, how long (if at all) they have been idle on the network, terminal line, and terminal location where applicable. It may also display .plan and .project files left by the user.

See also: [login](#), [terminal](#), [.plan file](#)

fingerd

A daemon or server program designed to allow remote users to obtain information about other users on remote systems. In order to make a .plan file visible and usable for others, the fingerd program must be installed and active on the user's host system. If it is not active, other fingerable information may be available, but remote users will not be able to see specific information created by the user for browsing by others and contained in the user's .plan file.

See also: [finger](#), [identd](#), [daemon](#), [.plan file](#)

firewall

A damage prevention and security system usually used in WAN networks and businesses connecting to the Internet. It consists of code which aliases, hides or blocks the firewalled computer from identification by any other computer on the network. Well-constructed firewalls prevent industrial espionage and sabotage as well as discouraging hackers, and are also used to prevent less knowledgeable users from accessing commands and services which could compromise the integrity of the system. Net Nanny is a form of firewall for home use and Trumpet Winsock contains firewall features; high-end commercial firewalls designed to protect corporate networks can cost several thousand dollars and require weeks of custom configuration.

See also: [winsock](#), [Trumpet](#), [filter](#)

flame

A strong opinion and/or criticism of something, usually as a frank inflammatory statement, in an email message. It is common to precede a flame with an indication of pending fire (e.g. FLAME ON). Flame Wars occur when people start flaming other people for flaming when they shouldn't have. Flame can also refer to a thread of messages containing or pertaining to inflammatory statements. As to what constitutes "inflammatory", that depends almost entirely on the participants and the milieu.

See also: [email](#), [USENET](#), [spam](#)

flood

An IRC term; to dump large amounts of text onto an IRC channel in a short time. Considered rude behavior. Most IRC hosts will automatically kick off any user flooding a channel, as this behavior also consumes bandwidth and can contribute to reducing the integrity of the network.

See also: [Internet Relay Chat \(IRC\)](#)

flow control

A communications technique used by modems to tell each other when to stop sending or restart sending data. Flow control is required for smooth operation of high-speed modems in particular where errors are frequent. There are two main types of flow control: hardware flow control, in which flow control is handled by the hardware, and software flow control (RTS/CTS), in which the flow control is handled by the computer rather than the modem.

See also: hardware flow control, XON/XOFF

foo (foobar)

A generic term, used whenever John Doe or x won't quite cut it; as in: "The proper syntax for your email address is *foo@foobar.bar*"

See also: alias

For Your Information (FYI)

A subseries of RFCs that are not technical standards or descriptions of protocols. FYIs convey general information about topics related to TCP/IP or the Internet.

See also: Request For Comments (RFC), STD

FOSSIL driver

Software that replaces a computer's internal serial port BIOS routines for faster access to the serial port. Required by some BBS doors, external file protocols and remote-access systems.

See also: serial port, bulletin board system (BBS), door, external protocol, remote access server (RAS)

fractional T-1

Full T-1 service permits up to 24 channels of digital communication. A fractional T-1 uses only part of this. This is how some Internet providers can advertise T-1 service while having only a small fraction of the full 1.54Mbits/sec transmission rate of a dedicated T-1. The full service of a T-1 line is still available, but it is usually shared among several clients to defray costs.

See also: [T-1](#), [T-3](#),

fragment

A piece of a packet. When a router is forwarding an IP packet to a network that has a maximum packet size smaller than the packet size, it is forced to break up that packet into multiple fragments. These fragments will be reassembled by the IP layer at the destination host.

See also: [fragmentation](#), [packet](#), [router](#), [layer](#), [OSI Reference Model](#)

fragmentation

The IP process in which a packet is broken into smaller pieces to fit the requirements of a physical network over which the packet must pass.

Also refers to the state of a floppy or hard disk's files; files are *fragmented* when the file is separated into two or more parts located separate from one another on the same disk. This generally slows down the performance of the system attempting to access those files; thus the need for defragmentation utilities.

See also: Internet Protocol (IP), packet, reassembly.

frame

A frame is a datalink layer "packet" which contains the header and trailer information required by the physical medium. That is, network layer packets are encapsulated to become frames.

See also: datagram, header, encapsulation, packet, layer, OSI Reference Model

freenet

Community-based bulletin board system with email, information services, interactive communications, and conferencing. Generally refers to networks of this description which also provide Internet access.

Freenets are funded and operated by individuals and volunteers -- in one sense, like public television. They are part of the National Public Telecomputing Network (NPTN), an organization based in Cleveland, Ohio, devoted to making computer telecommunication and networking services as freely available as public libraries. [Source: LAQUEY]

See also: ToasterNet, bulletin board system (BBS), Internet

freeware

A method of software distribution whereby the software in question is provided free for public use, however the copyright for the software itself resides with the author. Freeware permits software authors and developers to release their programs free to the public and still retain control over how the software is used. Freeware is a common method of releasing small and limited-purpose programs and fully usable demonstration versions of larger commercial packages, but nowhere near as common as shareware.

See also: [shareware](#), [public domain](#)

frequently asked question (FAQ)

FAQ is usually used to indicate either a question asked frequently by new users about a given subject, a text file prepared to answer such questions in advance to spare users of a newsgroup or mailing list from repeatedly answering the same questions, or the file extension used by such a text file.

See also: [mailing list](#), [USENET](#).

full echo

This is a software terminal setting that tells the software that characters sent to the modem will be "echoed" back by the modem at the other end, thus eliminating the need for the local computer to display them on the screen. Used mainly on TELNET sites; most bulletin board systems use local echo.

See also: echo, local echo, terminal, TELNET, bulletin board system (BBS)

fully qualified domain name (FQDN)

The FQDN is the full name of a system, rather than just its hostname. For example, *venera* is a hostname and *venera.isi.edu* is an FQDN.

See also: hostname, Domain Name System (DNS)

gated

Gatedaemon. A program which supports multiple routing protocols and protocol families. It may be used for routing, and makes an effective platform for routing protocol research. The software is freely available by anonymous FTP from "gated.cornell.edu". Pronounced "gate-dee".

See also: Exterior Gateway Protocol (EGP), Open Shortest Path First IGP, Routing Information Protocol (RIP), routed

gateway

The term "router" is now used in place of the original definition of "gateway". Currently, a gateway is a communications device/program which passes data between networks having similar functions but dissimilar implementations. This should not be confused with a protocol converter. By this definition, a router is a layer 3 (network layer) gateway, and a mail gateway is a layer 7 (application layer) gateway.

See also: mail gateway, router, protocol converter, layer, OSI Reference Model

General Markup Language (GML)

IBM's document characteristic description language; most people now refer to relatives of GML such as HTML (HyperText Markup Language) and SGML (Standardized General Markup Language).

See also: hypertext

GENie

General Electric's international online service. A serious competitor with CompuServe for many years, GENie's market share has dropped considerably in the 1990s, and while it is still much loved by users it is no longer considered to be in the top three.

See also: CompuServe, online service

GNU (FSF, Free Software Foundation, GNU-C, GNU Public License)

The Free Software Foundation is a non-profit organization dedicated to providing a full set of useful computing tools free of all copying and alteration restrictions for free public use worldwide as a means of preventing a wide gap between the information haves and have-nots.

Among its most important contributions are GNU-C, a C language and compiler with an enormous amount of support from programmers; and the GNU Public License, a copyright license created specifically for GNU which allows software authors to distribute their products free to the public while preventing any firm or individual from "taking" their ideas and monopolizing them. There is also a popular GNU chess game for UNIX, DOS, Windows and other platforms. GNU itself means, quite literally, **GNU's Not UNIX**. We're not sure why the "G" was used.

Among the peripheral projects either loosely affiliated with FSF or using the GNU Public License are WINE, a Windows emulator that currently runs all Microsoft Windows-compatible software not requiring a VXD (device driver); FreeDOS, a project aimed at creating a fully-functioning free DOS operating system as compatible as possible with MS-DOS; Ghostscript, a fully Adobe-compatible Postscript language; and NetHack, a dungeons'n'dragons role-playing game popular for many years.

See also: [freeware](#), [public domain](#), [NetHack](#)

Graphics Interchange Format (GIF)

A format for coding computer graphic images using data compression copyrighted by CompuServe. Until 1996 the most common graphics format used on the Internet; CompuServe asserted its copyright late in 1994 and while end users may make use of the format without payment to CompuServe, commercial users may not. GIF is a bitmapped graphics format capable of 256 colors and unique features such as embedded commenting and interlacing. Soon to be replaced in popularity by formats such as PNG (Portable Network Graphics).

See also: [JPEG](#), [PNG](#), [CompuServe](#)

Gopher

A distributed information service that makes available hierarchical collections of information across the Internet. Gopher uses a simple protocol that allows a single Gopher client to access information from any accessible Gopher server, providing the user with a single "Gopherspace" of information. Public domain versions of the client and server are available, and since Gopher is integrated into the World Wide Web, most users will not normally see the difference between Gopher and the Web except when making direct searches of Gopher databases.

See also: [archie](#), [archive site](#), [Prospero](#), [Wide Area Information Servers \(WAIS\)](#)

Government OSI Profile

A subset of OSI standards specific to US government procurements, designed to maximize interoperability in areas where plain OSI standards are ambiguous or allow excessive options.
[Source: BIG-LAN]

See also: Open Systems Interconnection (OSI), OSI Reference Model

ground link, uplink, downlink

An earth-side connection to a satellite retransmitter, used for a wide range of telecommunications.

Uplinking and downlinking are both terms for connecting to the satellite for data transmission; uplinking generally refers to connecting for the purpose of transmission while downlinking refers to reception. Uplink and downlink can also be used as nouns representing stations or sites where connections can be made to transmitting satellites.

See also: landline

GZIP

GNU ZIP, a file compression utility created and released by the Free Software Foundation which can be used on a variety of platforms without the royalty payments required by PKZIP and most other popular file compression schemes. GZIP archives usually have a .GZ extension, or simply a .Z extension, and may also be preprocessed with tar.

See also: [archive](#), [data compression](#), [Free Software Foundation \(FSF\)](#), [PKZIP](#), [tar](#)

hack

Two primary meanings in computerdom: to create a quick and dirty solution to a problem (i.e. to "hack together" a program that does a specific task) or the act of studying, experimenting with, or otherwise learning about a particular piece of software or hardware (e.g. "I'll stick with my word processor; I don't have the time to hack spreadsheets.")

Capitalized, Hack refers to a dungeons'n'dragons game from the late 1970s that became popular on all platforms and as a network-playable adventure.

See also: [hacker](#), [NetHack](#)

hacker

A person who delights in having an intimate understanding of the internal workings of a system, computers and computer networks in particular. The term is often misused as a derogatory description, where "cracker" would be the correct pejorative term.

See also: [cracker](#), [SATAN](#), [Jargon File](#)

handle

Two meanings. Synonymous with nick or nickname when used in network chat, dating back to the citizens' band radio heydays of the 1970s when aliases were referred to as handles.

Also refers to **file handle**, a two-byte block of data used by programs such as spreadsheets, accounting packages and databases requiring exclusive rights to alter a file.

Also: a means of managing large numbers of open files on a system without requiring a vast amount of memory for identification.

See also: nick, Internet Relay Chat (IRC)

handshake

Two modems trying to connect first do this to agree on how to transfer data. A process of mutual identification of available protocols and the means each modem has to implement protocols of choice.

See also: V.xx, protocol, modem

hang

When a modem fails to hang up after a proper logoff, or when a modem stops responding to input in the middle of a session.

Also refers to any program that stops responding to input.

See also: logoff

hardware flow control (RTS/CTS)

A method of flow control which uses hardware settings in the modem to determine when the next batch of data from the remote computer should be sent and when data being received should be stopped. Hardware flow control is the preferred choice with high speed modems (9600 baud or higher).

See also: flow control, modem, asynchronous communication.

Hayes AT command set

Hayes compatible modem commands. All commands in this set start with the letters AT, signifying Attention.

In order to send these commands, the modem has to break from its network or connection mode. Three plus signs (+++) are typed at the command prompt (if the user is not in a graphical interface environment) in order to access these commands.

A few commonly-used AT commands include ATZ (restore the modem to its factory settings), ATH (**h**ang up on the current connection) and ATDT XXX-XXXX (**d**ial the number XXX-XXXX using **t**ones instead of pulses). A complete set of available AT commands is usually included in the modem's manual.

See also: [Hayes Inc., modem](#)

Hayes compatible

A hardware specification. Hayes set the standards for modem communications and most of their original standard is still the accepted industry norm used by all consumer modem products. Virtually every consumer modem product sold today is Hayes compatible; lack of compatibility makes the modem either useless or severely limited for most common dialup applications.

See also: Hayes AT command set, modem, dialup, Hayes

Hayes Microcomputer Products, Inc.

Known primarily as manufacturers of modems, this US firm developed the standard for modem operations which virtually all consumer level modems still follow.

See also: Hayes compatible

header

The portion of a packet preceding the actual data, containing source and destination addresses, and error checking and other fields. A header is also the part of an email message that precedes the body of a message and contains, among other things, the message originator, date and time.

Also (general computing): the portion of the file preceding the actual usable data within that file. This section of the file contains information regarding the file's type, format, use, copyright and other information not strictly needed for the use of the data.

See also: email, packet

heterogeneous network

A network running multiple network layer protocols.

See also: OSI Reference Model, layer, DECnet, Internet Protocol (IP), Internetwork Packet Exchange (IPX), XNS

hierarchical routing

The complex problem of routing on large networks can be simplified by reducing the size of the networks. This is accomplished by breaking a network into a hierarchy of networks, where each level is responsible for its own routing. The Internet has, basically, three levels: the backbones, the mid-levels, and the stub networks. The backbones know how to route between the mid-levels, the mid-levels know how to route between the sites, and each site (being an autonomous system) knows how to route internally.

See also: Autonomous System (AS), Exterior Gateway Protocol (EGP), Interior Gateway Protocol (IGP), stub network, transit network, backbone

High Performance Computing and Communications (HPCC)

High performance computing encompasses advanced computing, communications, and information technologies, including scientific workstations, supercomputer systems, high speed networks, special purpose and experimental systems, the new generation of large scale parallel systems, and application and systems software with all components well integrated and linked over a high speed network. [Source: HPCC]

See also: [network](#)

High Performance Parallel Interface (HIPPI)

An emerging ANSI standard which extends the computer bus over fairly short distances at speeds of 800 and 1600 Mb/s. HIPPI is often used in a computer room to connect a supercomputer to routers, frame buffers, mass-storage peripherals, and other computers. What every hacker wishes they had enough money to afford. [Source: MALAMUD]

See also: American National Standards Institute (ANSI) router, frame

High-Speed Transmission (HST)

A modem communications protocol developed by US Robotics for their high-end modems in the late 1970s, it never caught on as a standard. HST allows high-performance error correction and data compression and allowed USR modems to communicate with each other at higher speeds than any other modem brand of the day allowed. Now obsolete due to lack of compatibility with other modem brands.

See also: [data compression](#), [V.xx](#), [US Robotics](#)

hit

An "access" or "read". Every time a program accesses or reads a file from hard disk, it is considered a "hit" regardless of the amount of data accessed. On the Internet, refers to accessing data from outside the host system ("hit counts" are measures of a Web page's popularity, for example)

See also: host, page, World Wide Web (WWW/W3)

home page

Strictly speaking the top level, root or index page of a World Wide Web site, generally the page with the shortest URL, as in "You can find the strawberry jam recipe at `http://chef.com/food/jams.html`, but I recommend you browse the home page first at `http://chef.com` to get an idea of everything they have on the site". Home pages usually have the file name `index.html`.

See also: root page, Uniform Resource Locator (URL)

hop

A term used in routing. A path to a destination on a network is a series of hops, through routers, away from the origin.

See also: router, bridge, Time to Live (TTL)

host

A computer that allows users to communicate with other host computers on a network. Individual users communicate by using application programs, such as electronic mail, TELNET and file transfer protocol (FTP). [Source: NNSC]

hostname

The alphanumeric name of any machine providing data on an internet.

See also: IP address, Domain Name System (DNS), Fully Qualified Domain Name.

hotspot

A "clickable" area of text or graphics. Hotspot refers to an area of text, or part or all of an image, which, when selected by an input device such as a mouse, allows the user to move to another part of a document or program. The highlighted "See also:" words in this help tool are hotspots. So are the abbreviations and terms used in the main screen of the lexicon.

See also: hypertext

HS/Link

This is a high speed bi-directional file transfer protocol (not to be confused with FTP) used primarily on bulletin board systems. Considered to be one of the most versatile protocols of its kind; it is commercial software however and is not in common consumer use. Permits 32 bit CRC error protection, batch file transfers, aborted file crash recovery, bi-directional data transmission and a facility to permit chat while file transfers are taking place.

See also: external protocol, CRC, XMODEM

hub

A device connected to several other devices. In ARCnet, a hub is used to connect several computers together. In a message handling service, a hub is used for the transfer of messages across the network. [Source: MALAMUD]

See also: [ARCnet](#), [token ring](#)

[hypertext](#)

Hypertext is a generic term that refers to the way documents are structured. Hypertext can either mean text documents which are linked to other documents or bits of information to form a body of information that would be difficult to manage or understand as a single document, or it can mean a single document which contains its own built-in cross-referencing system, so that you can jump from place to place in the document by clicking a highlighted area with your mouse or highlighting it with your cursor.

Trivia

The term originated in the 1960s with computer scientist Ted Nelson, but has its roots with Vannevar Bush, a wartime advisor to US president Franklin D. Roosevelt. He proposed a technology called Nemex, which postulated the ideal hypertext system as one in which every word was linked to other related words, topics and information.

See also: [Standardized General Markup Language \(SGML\)](#), [Hypertext Markup Language \(HTML\)](#), [hotspot](#)

Hypertext Markup Language (HTML)

The standard *formatting* language (not strictly speaking a programming language) used in developing and displaying text and graphics on the World Wide Web. A primitive offshoot of SGML (Standard Generalized Markup Language).

See also: Java, General Markup Language (GML), Standardized General Markup Language (SGML), hypertext, tag, setext

Hypertext Transport Protocol (HTTP)

The specification for connecting World-Wide Web resources to each other and to users via the Internet.

See also: [hypertext](#), [protocol](#), [World Wide Web \(WWW/W3\)](#)

IBM 3270/PC

Older IBM color PC; supported graphics, had mouse, printer and hard disk. This is also an emulation standard for network connections with IBM mainframes and is in common use on the Internet.

See also: [Internet](#), [terminal emulation](#), [network](#)

identd

Identification daemon. A program used mainly for security and monitoring purposes on the Internet. `identd` allows remote users with sufficiently high access to verify the identities of users on their system, regardless of how their user identification may appear. Used mainly to monitor abuses of Internet services, although many other possible implementations are possible.

See also: [fake username](#), [daemon](#), [fingerd](#)

Indexed Sequential Access Method (ISAM)

A method of storing and retrieving data used in database systems which provides a faster alternative to standard operating system filing methods. Many programs designed for office use provide ISAM compatibility features for high-speed access to database records. It functions like a disk operating system because the database records' locations are stored in a special index that functions in much the same way as a file allocation table. This allows queries to jump straight to the requested record rather than wade through every file until the specified data is found.

Information Highway

Used to refer to the entire spectrum of worldwide interactive data transmission and reception, including Internet, interactive television and similar networked media. The term is scorned in the industry as misleading and inappropriate.

See also: internet, Internet

Institute of Electrical and Electronics Engineers (IEEE)

The institutional body responsible for defining and establishing many of the standards and specifications in use on the Internet and for networking in general.

See also: [IEEE 802](#)

Integrated Services Digital Network (ISDN)

An emerging technology offered by many telephone carriers. ISDN combines voice and digital network services in a single medium, making it possible to offer customers digital data services as well as voice connections through a single "wire". The standards that define ISDN are specified by CCITT. [Source: RFC1208]

ISDN is the standard used for high-speed Internet connections using phone lines and requires special modem hardware.

See also: [Internet](#), [bandwidth](#), [CCITT](#), [modem](#)

Interagency Interim National Research and Education Network (IINREN)

An evolving operating network system. Near term (1992-1996) research and development activities will provide for the smooth evolution of this networking infrastructure into the future gigabit NREN. [Source: HPCC]

See also: National Research and Education Network (NREN)

Interior Gateway Protocol (IGP)

A protocol which distributes routing information to the routers within an autonomous system. The term "gateway" is historical, as "router" is currently the preferred term.

See also: Autonomous System (AS), Exterior Gateway Protocol (EGP), Open Shortest Path First IGP, Routing Information Protocol (RIP).

Intermediate System (IS)

An OSI system which performs network layer forwarding. It is analogous to an IP router.

See also: Open Systems Interconnection (OSI), layer, Internet Protocol (IP), router

Intermediate System-Intermediate System (IS-IS)

Term for the Open Systems Interconnection Interior Gateway Protocol.

See also: Open Systems Interconnection (OSI), Interior Gateway Protocol (IGP)

International Organization for Standardization (ISO)

A voluntary, nontreaty organization founded in 1946 which is responsible for creating international standards in many areas, including computers and communications. Its members are the national standards organizations of the 89 member countries, including ANSI for the US [Source: TAN]

See also: American National Standards Institute (ANSI), Open Systems Interconnection (OSI)

internet

While an internet is a network, the term "internet" is usually used to refer to a collection of networks interconnected with routers.

See also: [router](#), [network](#), [Internet](#)

Internet

(note the capital "I") The Internet is the largest internet in the world. It is a three level hierarchy composed of backbone networks (e.g., NSFNET, MILNET), mid-level networks, and stub networks. The Internet is a multiprotocol internet.

See also: backbone, mid-level network, stub network, transit network, Internet Protocol (IP), Corporation for Research and Educational Networks (CREN), National Science Foundation (NSF)

Internet access provider, gateway provider

Company or organization which provides gateway services to the Internet. Often used interchangeably with Internet service provider (ISP) but more concerned with providing an actual gateway to Internet data exchange rather than specific services such as email and newsgroups. The difference between Internet access provider and Internet service provider is blurry in practice.

See also: Internet service provider (ISP), gateway

internet address

(Also known as **host address**, or as **internet number** or **host number** when given in numerical form) An IP address that uniquely identifies a node on an internet. An Internet address (capital I), uniquely identifies a node on the Internet.

See also: internet, node, Internet, IP address

Internet Architecture Board (IAB)

The technical body that oversees the development of the Internet suite of protocols. It has two task forces: the IETF and the IRTF. "IAB" previously stood for Internet Activities Board.

See also: TCP/IP protocol suite, Internet Engineering Task Force (IETF), Internet Research Task Force (IRTF)

Internet Archive Listing Service (archie)

Archie is a system designed to hunt for software from literally hundreds of sites across the Internet. Archie maintained directory listings of over 800 FTP sites containing some one million files (over 50 gigabytes) which are kept in a searchable database. Generally used with TELNET, although graphical archie clients are available. The initial implementation of archie was an attempt to provide an indexed directory of filenames from all anonymous FTP archives on the Internet. Later versions provide other collections of information as well. Archie is one of the best means of searching for information, but like any other database on the Internet is far from complete.

See also: [archive site](#), [Gopher](#), [Prospero](#), [Wide Area Information Server \(WAIS\)](#), [Veronica](#)

Internet Assigned Numbers Authority (IANA)

The central registry for various Internet protocol parameters, such as port, protocol and enterprise numbers, and options, codes and types. The currently assigned values are listed in the "Assigned Numbers" document [STD2]. To request a number assignment, contact the IANA at *iana@isi.edu*.

See also: port, protocol, assigned numbers, STD

Internet cafe

A term typically used to describe café's, restaurants or clubs which provide computers for public access which are connected to the Internet. They tend to be immensely popular wherever they are available.

See also: ToasterNet, freenet

Internet Control Message Protocol (ICMP)

ICMP is an extension to the Internet Protocol. It allows for the generation of error messages, test packets and informational messages related to IP. It is defined in STD 5, RFC 792.

[Source: FY14]

See also: [Internet protocol](#), [packet](#), [STD](#)

Internet-Draft (I-D)

Internet-Drafts are working documents of the IETF, its Areas, and its Working Groups. As the name implies, Internet-Drafts are draft documents. They are valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. Very often, I-Ds are precursors to RFCs.

See also: [Internet Engineering Task Force \(IETF\)](#), [Request For Comments \(RFC\)](#)

Internet Engineering Steering Group (IESG)

The IESG is composed of the IETF Area Directors and the IETF Chair. It provides the first technical review of Internet standards and is responsible for day-to-day "management" of the IETF.

See also: [Internet Engineering Task Force \(IETF\)](#)

Internet Engineering Task Force (IETF)

The IETF is a large, open community of network designers, operators, vendors, and researchers whose purpose is to coordinate the operation, management and evolution of the Internet, and to resolve short-range and mid-range protocol and architectural issues. It is a major source of proposals for protocol standards which are submitted to the IAB for final approval. The IETF meets three times a year and extensive minutes are included in the IETF Proceedings. [Source: FY14]

See also: [Internet](#), [Internet Architecture Board](#), [protocol](#).

Internet Experiment Note (IEN)

A series of reports pertinent to the Internet. IENs were published in parallel to RFCs and are no longer active.

See also: Internet-Draft, Request For Comments (RFC)

Internet-in-a-Box

Probably the best-known Internet software to non-Internet users, Spry Inc. and O'Reilly and Associates made point-and-click Internet a practical reality for Windows users in 1994 with their Internet-in-a-Box package, which included a modified version of NCSA's Mosaic browser, email, newsreader and other net gadgets packaged with a manual and their own custom winsock. Although many providers found the winsock a bit shakey (but have at least as critical words for about Trumpet's winsock), Internet-in-a-Box nonetheless lured tens of thousands of new users onto the Internet. By mid-1995 the package looked decidedly limp compared to combinations of shareware and freeware offerings from other firms such as Forte (Free Agent), Netscape and Qualcomm (Eudora), and by late 1995 Internet-in-a-Box was eclipsed by several complete suites including winsocks from a variety of publishers.

See also: [Trumpet](#), [Netscape](#), [Mosaic](#), [winsock](#), [Chameleon](#)

Internet Monthly Report (IMR)

Published monthly, the purpose of the Internet Monthly Reports is to communicate to the Internet Research Group the accomplishments, milestones reached, or problems discovered by the participating organizations.

See also: [Internet Research Steering Group \(IRSG\)](#)

Internet Network Information Center (InterNIC)

The Internet agency best known for maintaining and authorizing domain name lists. Numeric Internet addresses may also have alphanumeric equivalents (e.g. 198.22.32.33 might also be www.network.org). InterNIC makes sure that such domains are unique and assigned in an appropriate fashion. Beginning late in 1995 InterNIC began charging for registration and annual maintenance of domain names.

See also: Domain Name System (DNS), Internet Assigned Numbers Authority

Internet Protocol (IP)

The Internet Protocol, defined in STD 5, RFC 791, is the network layer for the TCP/IP Protocol Suite. It is a connectionless, best-effort packet switching protocol.

See also: [layer](#), [packet switching](#), [Request For Comments \(RFC\)](#), [TCP/IP Protocol Suite](#)

Internet Registry (IR)

The IANA has the discretionary authority to delegate portions of its responsibility and, with respect to network address and Autonomous System identifiers, has lodged this responsibility with an IR. The IR function is performed by the DDN NIC.

See also: Autonomous System (AS), Defense Data Network NIC, Internet Assigned Numbers Authority

Internet Relay Chat (IRC)

A world-wide "party line" protocol that allows one to converse with others in real time using keyboard input. IRC is structured as a network of servers, each of which accepts connections from client programs, one per user. [Source: The Jargon File 3.0.0]

See also: protocol, Internet Phone, talk, EFNet

Internet Research Steering Group (IRSG)

The "governing body" of the IRTF. [Source: MALAMUD]

See also: Internet Research Task Force (IRTF)

Internet Research Task Force (IRTF)

The IRTF is chartered by the IAB to consider long-term Internet issues from a theoretical point of view. It has Research Groups, similar to IETF Working Groups, which are each tasked to discuss different research topics. Multicast audio/video conferencing and privacy enhanced mail are samples of IRTF output.

See also: [Internet Architecture Board](#), [multicast](#), [Internet Engineering Task Force \(IETF\)](#), [Privacy Enhanced Mail \(PEM\)](#)

Internet service provider

A firm or organization that provides access to Internet services such as email, newsgroups, IRC and World Wide Web. Generally refers to a provider offering a full range of Internet services as opposed to a gateway.

See also: TCP/IP protocol suite, Internet access provider (IAP), online service, email, USENET, Internet Relay Chat (IRC), World Wide Web (WWW/W3)

Internet Society (ISOC)

The Internet Society is a non-profit, professional membership organization which facilitates and supports the technical evolution of the Internet, stimulates interest in and educates the scientific and academic communities, industry and the public about the technology, uses and applications of the Internet, and promotes the development of new applications for the system.

The Society provides a forum for discussion and collaboration in the operation and use of the global Internet infrastructure. The Internet Society publishes a quarterly newsletter, the Internet Society News, and holds an annual conference, INET. The development of Internet technical standards takes place under the auspices of the Internet Society with substantial support from the Corporation for National Research Initiatives under a cooperative agreement with the US Federal Government. [Source: V. Cerf]

See also: [internet](#), [Internet](#), [Internet Research Task Force \(IRTF\)](#)

Internetwork Packet Exchange (IPX)

Novell's protocol used by Netware. A router with IPX routing can interconnect LANs so that Novell Netware clients and servers can communicate.

See also: Local Area Network (LAN), router, Netware

interoperability

The ability of software and hardware on multiple machines from multiple vendors to communicate meaningfully. Geekspeak for compatibility.

IP address

The 32-bit address defined by the Internet Protocol in STD 5, RFC 791. It is usually represented in dotted decimal notation and is also less commonly referred to as a **dot address**.

See also: internet address, Internet Protocol (IP), network address, subnet address, host address

IPHONE

Internet Phone: a commercial software package that permits digitized voice chat on IRC-type networks. Banned from the traditional IRC networks because of its massive hunger for bandwidth.

See also: duplex, Internet Relay Chat (IRC)

IPSS

Integrated Packet-Switching Service: AT&T's ISDN product.

See also: packet switching, Integrated Services Digital Network (ISDN)

IRCOP

IRC Operator, manager of a site computer where people connect to IRC.

See also: [site](#), [Internet Relay Chat \(IRC\)](#).

ISO Development Environment (ISODE)

Software that allows OSI services to use a TCP/IP network.

See also: International Organization for Standardization (ISO), Open Systems Interconnection (OSI), TCP/IP Protocol Suite

Jargon File

"A comprehensive compendium of hacker slang illuminating many aspects of hackish tradition, folklore, and humor." A freely-distributed periodic publication much loved and quoted by computer aficionados, particularly Internet veterans and corporate programmers. Used as a major source for the material in this lexicon and highly recommended reading material for all potential computer/Internet addicts.

See also: [hacker](#), [Internet](#), [acknowledgements](#)

Java

The programming language everyone has been waiting for. Java is an interpreted language, meaning it does not require compiled programs, which runs on all common computer platforms and is specifically designed to use World Wide Web browsers as shells. Programs are downloaded to the remote computer, loaded into the browser and run. At this writing the language is still developing and looks limited, but the developers, Sun Microsystems, have made serious attempts to make it as flexible, fast and powerful as an uncompiled language can be.

Java's simplicity is on a par with BASIC, meaning that creating simple Java programs is no more difficult than writing a Web page. What Java essentially means to the Internet is that it now has its own programming language, and the creative limitations of HTML are essentially gone.

Java needs browser software capable of supporting it, and it will probably be early 1996 before most popular Web browsers have Java capability.

See also: [download](#), [Sun Microsystems](#), [page](#), [Hypertext Markup Language \(HTML\)](#), [browser](#),

JKREY

Joyce K. Reynolds

Joint Pictures Experts Group (JPEG)

This acronym is more often used to refer to the graphics compression standard developed by JPEG than to refer to the JPEG organization itself. JPEG is a form of lossy compression with a number of possible options which allows reduction of true-color (16 million color) graphics data to a fraction of its original size. It represents the next stage in graphics processing for transportability, speed and archiving from GIF's compression, offering average reductions of as much as 1/24th original size.

JPEG is known as a lossy compression scheme because it reduces the level of detail in the image as a part of the compression process, and this detail is not restored when the image is uncompressed for viewing. JPEG is the second most popular graphics format on the World Wide Web next to GIF.

See also: [data compression](#), [Graphics Interchange Format \(GIF\)](#), [MPEG](#), [archive](#), [World Wide Web \(WWW/W3\)](#)

k-line

A line of text in a configuration file which is usually used by a host site to store lists of user names or addresses which will be denied access to that particular site. When a given individual, site, or domain (up to and including whole countries or groups of organizations, such as all commercial Internet hosts) has been added to this list, they are said to be "k-lined", or banned from using a particular service on that site.

See also: [ircop](#), [domain](#), [identd](#)

KA9Q

A popular implementation of TCP/IP and associated protocols for amateur packet radio systems.
[Source: RFC1208]

See also: [TCP/IP Protocol Suite](#)

Kerberos

Kerberos is the security system of MIT's Project Athena. It is based on symmetric key cryptography.

See also: [encryption](#), [data encryption key](#), [Pretty Good Privacy \(PGP\)](#)

Kermit

A data transfer protocol for binary file transfers developed at Columbia University. Kermit is notorious for being slower than even XMODEM and was named after the Sesame Street frog. In use mainly on university and institutional systems who have had neither the time nor the funds to implement more modern protocols; became popular due to its availability on many different platforms.

See also: [XMODEM](#), [external protocol](#), [download](#)

keyword search

A search query of a database using specific words, phrases or parts of words. Keyword searches are used to find sections of text in a document or records in a database containing the string(s) of characters requested. The **Search** function built into Windows Help and implemented in *PC/Internet Lexicon* is an example of keyword search.

killfile

A configuration file for filtering USENET postings and, depending on the system or software, email, by excluding messages on certain topics or from certain people. Most sophisticated email and newsreader programs come with "killfile" facilities.

Knowbot

An experimental directory service.

See also: white pages, WHOIS, X.500

Knowledge In, Bull** Out (KIBO)**

What happens when data is digested through hierarchical structures that behave like committees; slang expression for "camp toilet". Kibo was also used for a time as a sarcastic, referential or deprecating remark, primarily on USENET, to refer to information posted which appeared to be the result of this decomposition process.

See also: [posting](#), [USENET](#)

lag (netlag)

A term used in MUDs and on IRC to describe the effect of a congested or otherwise glitched network on conversation or interaction. Lag refers to the delay between input of a command or statement and its receipt by the remote computer and/or other participating parties. In the early 1990s lag of up to a minute during peak times on IRC in particular was considered a serious headache; by 1995 lag of up to ten minutes, particularly on EFNet, was not uncommon during peak North American evening hours in particular. Lag is also a regular problem with some popular TELNET sites and can often be witnessed by any user of a popular Internet service provider attempting to use the Internet during prime time evening hours.

See also: EFNet, congestion, Undernet, Internet Relay Chat (IRC), TELNET, Internet service provider (ISP)

landline

A telecommunications circuit linked by physical wires, as opposed to a ground link circuit which sends and receives data to and from satellite retransmitters or a microwave circuit that sends data through the airwaves.

See also: [ground link](#)

layer

Communication networks for computers may be organized as a set of more or less independent protocols, each in a different layer (also called level). The lowest layer governs direct host-to-host communication between the hardware at different hosts; the highest consists of user applications. Each layer builds on the layer beneath it. For each layer, programs at different hosts use protocols appropriate to the layer to communicate with each other. TCP/IP has five layers of protocols; OSI has seven.

The advantages of different layers of protocols is that the methods of passing information from one layer to another are specified clearly as part of the protocol suite, and changes within a protocol layer are prevented from affecting the other layers. This greatly simplifies the task of designing and maintaining communication programs.

See also: [Open Systems Interconnection \(OSI\)](#), [OSI Reference Model](#), [TCP/IP Protocol Suite](#).

LineMode Browser

A simple and now obsolete program for browsing the World Wide Web using command-line interfaces such as shell-level UNIX or command-prompt DOS. CERN developed the LineMode Browser as the first widely-available tool for browsing the Web, but the preferred browser for those not able to use a GUI-based WWW client is the much prettier Lynx program.

See also: [browser](#), [Netscape](#), [Mosaic](#), [European Center for Particle Physics \(CERN\)](#)

[link \(hyperlink\)](#)

Telecommunications: a way to connect two Internet resources via a simple word, phrase or graphical object on which a user can click to start the connection. [Source: "EFF's Guide to the Internet"]

General computing: refers to the same process when used in hypertext documents such as this helpfile; the hotspots in this helpfile are links.

Also: programming term used to refer to methods of joining bits of code so that the compiler knows how to read the code required for building a program.

See also: [hypertext](#), [hotspot](#), [Electronic Frontier Foundation \(EFF\)](#)

Linux

A free version of a clone of the UNIX System V Release 3.0 designed specifically for use on IBM-compatibles. Created by Linus Torvalds of Norway, it was exceptionally well-received and supported with help, source code, applications and other contributions - most of them also free - to the point where it has become the operating system of choice for low- to medium-volume Internet providers. It is available free on bulletin boards, FTP sites and inexpensive CDs (US\$20 and under, more with manuals) containing the full operating system and a huge array of applications, utilities and source code are widely available.

See also: [UNIX](#), [Berkeley Software Distribution \(BSD\)](#)

listserv

An automated mailing list distribution system originally designed for the BITNET/EARN network.

See also: [BITNET](#), [European Academic Research Network](#), [mailing list](#)

little-endian

A format for storage or transmission of binary data in which the least significant byte (bit) comes first. [Source: RFC1208]

See also: [big-endian](#)

Local Area Network (LAN)

A data network intended to serve an area of only a few square kilometers or less. Because the network is known to cover only a small area, optimizations can be made in the network signal protocols that permit data rates up to 100Mb/s. [Source: NNSC] Usually used to refer to small and medium-sized office-type networks or to large networks contained within a single physical location.

See also: Ethernet, Fiber Distributed Data Interface, token ring, Wide Area Network (WAN)

local echo

A terminal software setting that allows characters typed at the keyboard to be sent to the typist's screen from their own computer.

See also: [echo](#), [full echo](#), [terminal](#)

Logical Link Control (LLC)

The upper portion of the datalink layer, as defined in IEEE 802.2. The LLC sublayer presents a uniform interface to the user of the datalink service, usually the network layer. Beneath the LLC sublayer is the MAC sublayer.

See also: OSI Reference Model, IEEE 802.x, layer, Media Access Control

login, logout, logon, logoff

Refer to the process of connecting to a network. The term originated from the fact that as soon as one connected to a network, a log of the user's activities was opened on the host system to track usage. Without that log, the user was essentially "not on the system". These can also be used as separate words, e.g. "log in/log out".

Not to be confused with signon and signoff, which are commands used for entering and exiting specific net services.

[lurking](#)

Refers to the lack of active participation on the part of a subscriber to a mailing list, USENET newsgroup, online chat service, IRC channel, "room" or roundtable, MUD or other similar interactive, participatory service. Lurking is encouraged for newcomers as a way to get acquainted with mores and customs on a given service or learn about the subject matter being discussed.

See also: [email](#), [mailing list](#), [USENET](#), [Internet Relay Chat \(IRC\)](#), [multi-user domain](#)

MAC address

The hardware address of a device connected to a shared media. [Source: MALAMUD]

See also: Media Access Control Ethernet, token ring

mail application programming interface (MAPI)

A programming interface specification that supports email and is theoretically able to integrate into virtually any application. Originally developed by Microsoft, and implemented as a DLL in Windows and OS/2 as well as some Mac products. MAPI permits email to be created and sent from any program set up to recognize this interface.

See also: [VIM](#), [email](#)

mailbomb

A common tactic, now discouraged, for dealing with spammers, cross-posters and others deemed to be abusers of Internet services. The idea is to press home the severity of the offence on the offending party by deluging them with so much mail that it literally crashes or "bombs" their mail receipt and prevents them from receiving normal mail.

Mailbombing also allegedly alerts the host system administrator to the concern of other individuals regarding a specific individual's behavior, and is thus believed to be an effective way of "policing" the net. In effect, what this actually does is disrupt services for other users as well, essentially punishing innocent bystanders for the behavior of one individual.

Mailbombing was once common practice in dealing with certain types of disruptive behavior on the Internet; the act of mailbombing is now considered by many providers to be an offence severe enough to warrant immediate cancellation of the bomber's account.

See also: [email](#), [spam](#), [flame](#), [Internet service provider \(ISP\)](#)

mail bridge

A mail gateway that forwards electronic mail between two or more networks while ensuring that the messages it forwards meet certain administrative criteria. A mail bridge is simply a specialized form of mail gateway that enforces an administrative policy with regard to what mail it forwards. [Source: NNSC]

See also: [bridge](#), [email](#), [mail gateway](#)

Mail Exchange Record (MX Record)

A DNS resource record type indicating which host can handle mail for a particular domain.
[Source: MALAMUD]

See also: [Domain Name System \(DNS\)](#), [email](#)

mail exploder

Part of an electronic mail delivery system which allows a message to be delivered to a list of addresses. Mail exploders are used to implement mailing lists. Users send messages to a single address and the mail exploder takes care of delivery to the individual mailboxes in the list. [Source: RFC1208]

See also: [listserv](#), [email](#), [email address](#), [mailing list](#)

mail gateway

A machine that connects two or more electronic mail systems (including dissimilar mail systems) and transfers messages between them. Sometimes the mapping and translation can be quite complex, and it generally requires a store-and-forward scheme whereby the message is received from one system completely before it is transmitted to the next system, after suitable translations. [Source: RFC1208]

See also: [gateway](#), [Simple Mail Transport Protocol \(SMTP\)](#), [email](#)

mail path

A series of machine names used to direct email from one user to another. This system of email addressing has been used primarily in UUCP networks which are trying to eliminate its use altogether.

See also: bang path, email address, UNIX to UNIX Copy Protocol (UUCP)

mail server, autoresponder

A software program that distributes files or information in response to requests sent via email. Internet examples include Almanac and netlib. Mail servers have also been used in BITNET to provide FTP-like services. Autoresponder is becoming the accepted term, so as not to confuse mail server with email server software. [Source: NWNET]

See also: BITNET, email, file transfer protocol (FTP)

mailing list

A list of email addresses, used by a mail exploder, to forward messages to groups of people. Generally, a mailing list is used to discuss certain set of topics, and different mailing lists discuss different topics. A mailing list may be moderated. This means that messages sent to the list are actually sent to a moderator who determines whether or not to send the messages on to everyone else. Requests to subscribe to, or leave, a mailing list should *a/ways* be sent to the list's "-request" address (e.g., ietf-request@cnri.reston.va.us for the IETF mailing list).

See also: [moderator](#), [email](#), [listserv](#), [mail exploder](#)

mainframe

Term originally referring to the cabinet containing the central processor unit or "main frame" of a large computer. After the emergence of smaller 'minicomputer' designs in the early 1970s, the traditional big iron machines were described as "mainframe computers" and eventually just as mainframes. The term carries the connotation of a machine designed for batch rather than interactive use, though possibly with an interactive timesharing operating system retrofitted onto it; it is especially used of machines built by IBM, Unisys, and the other great dinosaurs surviving from computing's Stone Age. [Source: The Jargon File 3.0.0]

Management Information Base (MIB)

The set of parameters an SNMP management station can query or set in the SNMP agent of a network device (a router for example). Standard, minimal MIBs have been defined, and vendors often have private enterprise MIBs. In theory, any SNMP manager can talk to any SNMP agent with a properly defined MIB. [Source: BIG-LAN]

See also: [router](#), [client-server model](#), [Simple Network Management Protocol \(SNMP\)](#)

Martian

A humorous term applied to packets that turn up unexpectedly on the wrong network because of bogus routing entries. Also used as a name for a packet which has an altogether bogus (non-registered or ill-formed) internet address. [Source: RFC1208]

See also: internet address, packet, router, authentication

maximum transmission unit (MTU)

The largest frame length which may be sent on a physical medium.

See also: fragmentation, frame

MBPS

Megabits (one million bits, or 125,000 bytes) **per second**; most commonly used to measure transmission speed of data over landlines using Internet connection hardware.

See also: landline

Media Access Control (MAC)

The lower portion of the datalink layer. The MAC differs for various physical media.

See also: MAC Address, OSI Reference Model, Ethernet, layer, Logical Link Control, token ring

Message Handling System (MHS)

The OSI email standard also known as the X.400 specification, designed for developing cross-platform compatible email standards requiring minimal data conversion from one platform to the next.

See also: Government OSI Profile (GOSIP), X.400, email, OSI Reference Model, X.25

Metropolitan Area Network (MAN)

A data network intended to serve an area approximating that of a large city. Such networks are being implemented by innovative techniques, such as running fiber cables through subway tunnels. A popular example of a MAN is SMDS. [Source: NNSC]

See also: Local Area Network (LAN), Switched Multimegabit Data Service, Wide Area Network (WAN)

Microcom Network Protocol level 5 (MNP-5)

A protocol for communications developed by Microcom that allowed data compression on data transmission (usually) over telephone lines. Still found in many newer modems, replaced by CCITT protocols such as V.42. There are several versions of MNP error correction; the only one in common use other than MNP-5 is MNP-4.

See also: [data compression, protocol, CCITT, V.xx](#)

mid-level network

Mid-level networks, also referred to as **regional networks**, make up the second level of the Internet hierarchy. They are the transit networks which connect stub networks to backbone networks.

See also: backbone, Internet, stub network, transit network

mirror

Two common meanings. With PCs, mirror refers to the act of copying the contents of a disk or section of a disk to another disk for purposes of archive storage or backup. It was not commonly used on PCs due to the high cost of hard disks, but with newer hard disks priced at half or less the cost per megabyte of floppy disks, many users now use a second or third hard disk as their backup unit.

On the Internet, mirror can refer to either the act of mirroring a disk or part of a disk to another disk (often thousands of miles away) for the purpose of duplication, or to the site where the mirror is stored. For example, many popular FTP sites mirror their archives to several different mirror sites every night. Having multiple copies of a popular archive allows the host site to spread the workload among several remote sites so it is not constantly tied up with people attempting to download.

See also: [archive](#), [file transfer protocol \(FTP\)](#)

modem, FAX/modem

An acronym for MODulator-DEModulator, a hardware device that permits computers to communicate and transfer files with other computers over a telephone line. Properly capitalized; now commonly used in lower-case letters.

FAX/modems are modems which have the capability of either sending or sending and receiving FAX transmissions. Virtually all new modems manufactured for consumer use are FAX capable.

See also: FAX, CCITT, Hayes compatible, V.xx

moderator

A person, or small group of people, who manage moderated mailing lists and newsgroups. Moderators are responsible for determining which email submissions are passed on to list.

Also, on IRC, the user who filters messages sent to a specific channel; i.e. no one's words on a moderated channel are visible by others until cleared by the moderator.

See also: email, mailing list, USENET

modulation

The process of encoding a *carrier* frequency with information. Modem communications encode information in much the same way as early synthesizers, taking a base frequency tone or sound wave and altering its shape and size in a fashion that has specific meaning to the device receiving it. The timing and locations of specific changes in the carrier frequency tell the receiving modem how to decode the information.

See also: carrier, broadband, baseband

Mosaic (NCSA and other)

The first high-quality World Wide Web browser program to use a graphic user interface and allow viewing of graphics on the screen instead of using an external picture viewer. Developed by the **National Center for Supercomputing Applications (NCSA)** at the University of Indiana, this was the standard by which browser software was measured until the release of Netscape 0.87 in 1994.

As of late 1995 it was still considered to be one of the three best programs of its kind, and is available for all major computer platforms. Even as late as fall of 1995, Web browsers were often referred to as "mosaics" and the term (uncapitalized) appears to have passed into common usage as indicating a World Wide Web browser.

NCSA's Mosaic code has been used as the core software for several of the most popular browsers available today.

See also: [browser](#), [Netscape](#)

Motion Pictures Experts Group (MPEG)

Known mainly to computer users as the body responsible for developing the MPEG compression standard used for full motion video on computers. This compression scheme usually requires hardware in order to display video at a reasonable resolution and in full-screen mode as opposed to a small window, but it is usable on most 486-plus computers for small animations and videos.

MPEG has also developed data compression schemes for audio as well, which allow near-CD-quality audio in as little as 1/20 the space normally required. This allows artists to offer full-length songs in stereo for download on bulletin boards and the Internet in files just a few megabytes in size, instead of the dozens of megabytes required for full CD audio quality. MPEG-encoded audio files usually have the MP2 extension.

MPEG is expected to be the standard for computer video for the next several years.

See also: [data compression](#), [JPEG](#), [bulletin board](#), [Internet](#)

MOTSS

Members of the Same Sex. Gays and lesbians online. Originally an acronym used in the 1980 US federal census, now used by same-sex special interest groups as a chat acronym or defining term. [Source: "EFF's Guide to the Internet"]

See also: special interest group (SIG)

MSG

Message/Messenger

MSS

Massive Storage System

Also: **mss: manuscripts** (plural, lower case)

multicast

A packet with a special destination address which multiple nodes on the network may be willing to receive.

See also: packet, node, broadcast

multihomed host

A host which has more than one connection to a network. The host may send and receive data over any of the links but will not route traffic for other nodes. [Source: MALAMUD]

See also: node, host, router

Multipurpose Internet Mail Extensions (MIME)

An extension to Internet email which provides the ability to transfer non-textual data, such as graphics, audio and fax. It is defined in RFC 1341. MIME is the transmission protocol used to transfer non-text data associated with formatted HTML text over the World Wide Web. (In other words, graphics and sound are transmitted as MIME and decoded at the remote computer prior to use.)

See also: [World Wide Web \(WWW/W3\)](#), [Hypertext Markup Language \(HTML\)](#), [email](#)

multi-station access unit (MAU/MSAU)

This is a device used in a token-ring network for connecting up to 16 workstations to a central hub. It's designed as a control center and failsafe unit to preserve the integrity of the network, and for interconnecting with other subnetworks.

See also: [token-ring](#), [network](#), [workstation](#)

[multi-user dungeon/domain \(MUD\), MUSH, MUSE, etc.](#)

Adventure, role playing games, or simulations played on the Internet. Devotees call them "text-based virtual reality adventures". The games can feature fantasy combat, booby traps and magic. Players interact in real time and can change the "world" in the game as they play it. Most MUDs are based on the TELNET protocol. [Source: LAQUEY]

The concept is so popular that it has spawned a number of similar types of Internet services. The two most common are **MUSHs** and **MUSEs**. Multi-user shared hallucinations are MUDs which allow users to change the environment on the fly. (MUDs are typically overseen by one or two individuals who dictate the play environment and atmosphere. Multi-user self-directed education is a shared learning environment which can take on game-like overtones depending on how it is set up.

See also: [TELNET wizard mode](#)

MUX

Multiplexer

name resolution

The process of mapping a name into its corresponding numeric address. [Source: RFC1208]

See also: Domain Name System (DNS)

namespace

A commonly distributed set of names in which all names are unique. [Source: MALAMUD]

NASA

National Aeronautics And Space Administration

NATA

North American Telecommunications Association

National Institute of Standards and Technology (NIST)

US government body that provides assistance in developing standards. Formerly the National Bureau of Standards. [Source: MALAMUD]

National Research and Education Network (NREN)

The NREN is the realization of an interconnected gigabit computer network devoted to High Performance Computing and Communications. [Source: HPCC]

See also: High Performance Computing and Communications (HPCC), Interagency Interim National Research and Education Network (IINREN)

National Science Foundation (NSF)

A US government agency whose purpose is to promote the advancement of science. NSF funds science researchers, scientific projects, and infrastructure to improve the quality of scientific research. The NSFNET, funded by NSF, is an essential part of academic and research communications. It is a highspeed "network of networks" which is hierarchical in nature. At the highest level, it is a backbone network currently comprising 16 nodes connected to a 45Mb/s facility which spans the continental United States. Attached to that are mid-level networks and attached to the mid-levels are campus and local networks. NSFNET also has connections out of the US to Canada, Mexico, Europe, and the Pacific Rim. The NSFNET is part of the Internet.

See also: [backbone](#), [node](#), [network](#)

National Security Agency (NSA)

A US government agency whose purpose is to protect the internal security of the United States. Next to the Republican National Caucus, the most feared group of all among knowledgeable American Internet users. The agency most ardent in their push for the institution of the Clipper chip.

See also: [Clipper chip](#), [NSA line eater](#)

negative acknowledgment (NAK)

Telecommunications term: response to receipt of a corrupted packet of information.

See also: packet, acknowledgement

NetBIOS Extended User Interface (NetBEUI)

A network device driver or transport driver supplied with Microsoft Windows 95 and LANManager network operating system. It installs itself by default when Windows 95 is set up for dialup Internet access but is not needed by the dialup networking software and in fact often interferes with performance.

See also: Network Operating System (NOS), NetBIOS, dialup

Netcom, Netcruiser

In 1994 Netcom became the first large-scale online service to focus specifically on Internet access...and become wildly successful in doing so. With the combination of their own point-and-click Internet suite called Netcruiser (less than affectionately known as Netbruiser by experienced users), a custom winsock designed for their own particular dialup scheme, and virtually unlimited online dialup access time for under \$20 a month, Netcom (and Internet Direct in Canada another inexpensive unlimited-access provider) literally redefined the dialup provision industry in North America. Occasionally referred to as "the K-Tel of the Internet".

See also: winsock, browser, Internet service provider (ISP), online service, dialup

Net.Cop

Refers to individuals who take their self-appointed roles as guardians of the Internet's safety and/or freedom too seriously; usually pejorative. Net police do not exist in the strictest sense of the word.

See also: Net.God, flame, trolling

Net.God

EFF's "Guide to the Internet" says: "one who has been online since the beginning, who knows all and who has done it all". Practically speaking, net god has come to have several meanings, of which this is the least. Net god refers to someone with skill beyond the understanding of mere mortals, and to another extent the real or imagined deities which watch over the Internet (many pagan/wiccan followers believe such gods or spirits actually exist).

See also: domain expert, system administrator, ircop

NetHack

This is an all-text dungeons and dragons game for PCs. Its name stems from Hack, one of a group of similar games which include rogue, moria, and angband, most of them based on traditional dungeons and dragons concepts taken from the work of J.R.R. Tolkien ("Lord of the Rings").

The earliest version was an expanded version of Hack which was created in the Netherlands by Andries Brouwer, with similar play features, and the "net" comes from the fact that its ongoing development has taken place primarily over the Internet, with users contributing code and ideas for new features and play hints. It is the most complex and rich quest-type game of its kind, and at least partially responsible for many lost jobs, failed courses and ruined marriages.

See also: [multi-user domain \(MUD\)](#)

netiquette

A pun on "etiquette" referring to proper behavior on a network.

See also: Net.Cop

Netscape

Usually refers to Netscape Navigator, the most popular Internet interface program in use in 1995. Also refers to Netscape Communications, the company responsible for designing and distributing Netscape Navigator. Netscape markets a wide range of Internet software for both end users and providers at all levels, from their consumer-level browser to the most popular secure commerce server in use by private Internet service providers to high-end vendor distribution servers and databases costing upwards of \$100,000.

Also used as an adjective to describe features of HTML coding and Web page design which were made possible by extensions to the HTML formatting language proposed and first implemented by Netscape Communications.

See also: [Hypertext Markup Language \(HTML\)](#), [browser](#), [Mosaic](#), [secure commerce](#), [server](#), [Internet service provider \(ISP\)](#)

netsplit

Internet Relay Chat term, usually abbreviated to "split", signifying a temporary breakdown of the particular IRC network (there are many different IRC networks). Usually lasting from a few seconds to a few minutes, during a netsplit users are temporarily disconnected from other users connected on different servers and can converse only with users logged into or backboned by the same server.

See also: [Internet Relay Chat \(IRC\)](#), [backbone](#), [server](#), [lag](#)

network

A computer network is a data communications system which interconnects computer systems at various different sites. A network may be composed of any combination of LANs, MANs or WANs.

See also: Local Area Network (LAN), Metropolitan Area Network (MAN), Wide Area Network (WAN), internet

network address

The network portion of an IP address, also referred to as a **network number**. For a class A network, the network address is the first byte of the IP address. For a class B network, the network address is the first two bytes of the IP address. For a class C network, the network address is the first three bytes of the IP address. In each case, the remainder is the host address. In the Internet, assigned network addresses are globally unique.

See also: [Internet](#), [IP address](#), [subnet address](#), [host address](#), [Internet Registry \(IR\)](#)

network basic input/output system (NetBIOS)

Software designed to interface IBM-compatible hardware with a PC-based network operating system such as Netware. It is the core set of functions and rules around which all network program functions must be oriented on a specific PC.

See also: Local Area Network (LAN), NetBEUI, Netware

Network File System (NFS)

A protocol developed by Sun Microsystems, and defined in RFC 1094, which allows a computer system to access files over a network as if they were on its local disks. This protocol has been incorporated in products by more than two hundred companies, and is now a de facto Internet standard. [Source: NNSC]

See also: [Sun Microsystems](#)

Network Information Center (NIC)

A NIC provides information, assistance and services to network users.

See also: Network Operations Center (NOC), InterNIC

Network Information Services (NIS)

A set of services, generally provided by a NIC, to assist users in using the network.

See also: Network Information Center (NIC)

Network News Transfer Protocol (NNTP)

A protocol, defined in RFC 977, for the distribution, inquiry, retrieval, and posting of news articles.

See also: [protocol](#), [Request For Comments \(RFC\)](#), [USENET](#)

network operating system (NOS)

The operating system software specifically designed for accessing and using network functions. This software is either the exclusive operating system on a networked PC or else it coexists with another operating system on a PC linked to a network. The NOS is housed on the central file server and handles all data transactions between computers on the network, controls network access and data security and handles error-trapping. Novell Netware, Microsoft LAN Manager and Banyan Vines are examples of NOS'. Windows for Workgroups and LANTastic are networking operating systems but not necessarily true NOS'.

See also: file server, Local Area Network (LAN), NetBIOS

Network Operations Center (NOC)

A location from which the operation of a network or internet is monitored. Additionally, this center usually serves as a clearinghouse for connectivity problems and efforts to resolve those problems. [Source: NNSC]

See also: Network Information Center (NIC)

Network Time Protocol (NTP)

A protocol that assures accurate local timekeeping with reference to radio and atomic clocks located on the Internet. This protocol is capable of synchronizing distributed clocks within milliseconds over long time periods. It is defined in STD 12, RFC 1119. [Source: NNSC]

See also: Request For Comments (RFC), STD, Universal Time Coordinated (UTC), Internet

newbie

Somebody new to the Internet. Sometimes used derogatorily by net.veterans who have forgotten that they too were once newbies who did not innately know the answer to everything. "Clueless newbie" is always derogatory. [Source: "EFF's Guide to the Internet"] Used more often in recent times in a less derogatory sense; friendlier than "novice" or "dummy".

See also: Bob!

[newsreader](#)

A program specifically designed for the purpose of browsing and posting to USENET newsgroups.

See also: [Agent](#), [Network News Transfer Protocol \(NNTP\)](#), [UNIX to UNIX Copy Protocol \(UUCP\)](#), [posting](#), [USENET](#)

NIC.DDN.MIL

This is the domain name of the DDN NIC.

See also: [Defense Data Network NIC](#), [Domain Name System \(DNS\)](#), [Network Information Center \(NIC\)](#)

nick

Short for nickname; used on IRC, MUD's and other multiuser systems to provide unique identities to users where unique names are not possible because of system limitations.

See also: multi-user domain (MUD), Internet Relay Chat (IRC).

Nodal Switching System (NSS)

Main routing nodes in the NSFnet backbone. [Source: MALAMUD]

See also: backbone, node, National Science Foundation (NSF)

node

An addressable device attached to a computer network. A BBS that receives inter-BBS mail as part of a network is referred to as a node, as is a computer on an office network and a computer connected to the Internet via a dialup connection.

See also: bulletin board system (BBS), network, host, router

Novell, Novell Netware

American software giant responsible for the world's most popular Local Area Networking software for the DOS operating system, which is known as Netware. Also involved in consumer-level marketing as publishers of Novell DOS and now as the owners of WordPerfect.

See also: [network](#)

NSA line eater

The National Security Agency trawling program is sometimes assumed to be reading the net for the US Government's spooks. Most hackers describe it as a mythical beast, but some believe it actually exists, more aren't sure, and many believe in acting as though it exists just in case. Some netters put loaded phrases like KGB, Uzi, nuclear materials, Palestine, cocaine, and assassination in their sig blocks in a (probably futile) attempt to confuse and overload the creature. The GNU version of EMACS actually has a command that randomly inserts a bunch of insidious anarcho-verbiage into your edited text.

There is a mainstream variant of this myth involving a "Trunk Line Monitor", which supposedly used speech recognition to extract words from telephone trunks. This one was making the rounds in the late 1970s, spread by people who had no idea of then-current technology or the storage, signal-processing, or speech recognition needs of such a project. On the basis of mass-storage costs alone it would have been cheaper to hire 50 high-school students and just let them listen in. [Source: The Jargon File 3.0.0]

See also: [National Security Agency \(NSA\)](#), [Clipper chip](#), [encryption](#), [GNU](#), [EMACS](#)

octet

An octet is eight bits. This term is used in networking in place of *byte* because some systems have bytes that are not eight bits in length.

See also: [data byte](#), [octet-stream](#)

octet-stream

A stream, or continuous flow, of eight-bit binary information. Usually used when referring to file transfers destined for a PC. Virtually all PCs have an eight-bit byte, whereas many mainframes can have bytes up to 36 bits in length.

See also: [octet](#), [mainframe](#)

online, offline

Connected or disconnected from a network or resource. When your hard disk is disconnected from your computer, it is "offline".

See also: network.

Online Computer Library Catalog

OCLC is a nonprofit membership organization offering computer-based services to libraries, educational organizations, and their users. The OCLC library information network connects more than 10,000 libraries worldwide. Libraries use the OCLC System for cataloging, interlibrary loan, collection development, bibliographic verification, and reference searching. [Source: OCLC]

See also: Online Public Access Catalog (OPAC), Interagency Interim National Research and Education Network (IINREN), National Research and Education Network (NREN)

Online Public Access Catalog (OPAC)

The common term for the interface to US public library card catalogs.

See also: Online Computer Library Catalog (OCLC), Interagency Interim National Research and Education Network (IINREN), National Research and Education Network (NREN)

online service

A service, either networked or stand-alone, set up to provide information, messaging, or other forms of information for a group of people and managed by a central organization. Usually used as a generic term for any pay-for-play dialup information service. Examples of consumer-oriented online services include GEnie, CompuServe, America Online and Prodigy. May or may not provide Internet services or Internet gateway services, usually offered and advertised as self-contained databases.

See also: bulletin board system (BBS), CompuServe, America Online, GEnie, Prodigy, Byte Information Exchange (BIX), Netcom, Internet access provider (IAP)

Open Shortest-Path First Interior Gateway Protocol (OSPF)

A link state, as opposed to distance vector, routing protocol. It is an Internet standard IGP defined in RFC 1247.

See also: Interior Gateway Protocol (IGP), Routing Information Protocol (RIP)

Open Systems Interconnection (OSI)

A suite of protocols, designed by ISO committees, to be the international standard computer network architecture.

See also: International Organization for Standardization (ISO)

Open Systems Interconnection (OSI) Reference Model

A seven-layer structure designed to describe computer network architectures and the way that data passes through them. This model was developed by the ISO in 1978 to clearly define the interfaces in multivendor networks, and to provide users of those networks with conceptual guidelines in the construction of such networks. [Source: NNSC]

The seven layers of the OSI Reference Model are:

1. Physical layer (wires, plugs, and electrical signals)
2. Data link layer (packaging of data for transmission)
3. Network layer (connections between two separate systems)
4. Transport layer (conversion for transmission over network)
5. Session layer (establishes and terminates the session)
6. Presentation layer (data format conversion)
7. Application layer (messages between application programs)

See also: International Organization for Standardization (ISO) layer, network

packet

The unit of data sent across a network. "Packet" is a generic term used to describe unit of data at all levels of the protocol stack, but it is most correctly used to describe application data units.

See also: datagram, frame, block

packet assembler/disassembler (PAD)

Access device for packet switching node (PSN) computer.

See also: node, packet switching

packet internet groper (PING)

A program used to test reachability of destinations by sending them an ICMP echo request and waiting for a reply. The term is used as a verb: "Ping host X to see if it is up (online)!" [Source: RFC1208]

See also: [Internet Control Message Protocol \(ICMP\)](#), [online](#)

packet switch node (PSN)

A dedicated computer whose purpose is to accept, route and forward packets in a packet switched network. An intelligent communications processor.

See also: packet switching, node, router

packet switching

A communications paradigm in which packets (messages) are individually routed between hosts, with no previously established communication path. Also referred to as message switching.

See also: circuit switching, connection-oriented, connectionless

page

In general computing, page has two meanings.

A page usually refers to a block of data designed to be moved in and out of memory as needed. The size of this block depends on the application creating the page. EMS uses pages of memory 64K in size to manage applications needing more than the base 640k of memory allowed by DOS. ROM's also use pages to accelerate the movement of ROM data to and from the computer, improving the performance of the system. Text mode DOS also uses a page, 4096 bytes in length, for handling text graphics.

It can also refer to a screenful of text information in DOS text mode. A single screen of data is referred to as a **screen page**.

In telecommunications, page can refer either to the act of requesting a response from someone via a remote device, or a formatted document available on the World Wide Web. All HTML-formatted documents on the Web are referred to as pages.

See also: [Hypertext Markup Language \(HTML\)](#), [paging](#)

paging

Several meanings. Telecommunications: both the process of alerting the user of a remote message retrieval service that a new message has been received and the action of requesting the presence of a system operator or administrator on a BBS or TELNET site at the terminal for live chat or assistance.

In memory management, paging refers to the process of moving blocks of memory in and out of a particular location. "Paging" is how expanded memory allows DOS programs to take advantage of more than 640K of memory, since it manages those blocks in 16K to 64K chunks which can be swapped back and forth with up to 32Mb of memory in the computer even on the oldest PCs. This 64K window through which all extra memory must be shuttled is known as the *page frame*.

See also: bulletin board system (BBS), sysop, TELNET, terminal

Palo Alto Research Center (PARC)

The legendary Xerox think tank.

parity bit

The parity bit is the eighth bit of a telecommunications data byte which is always the same (either 0 or 1) on both the sending and receiving computer. Most modern telecommunications do not use or need parity bits (hence the common "8 bits, no parity"), which aids transmission speed since the parity bit comprises at least ten percent of the total data sent between modems when it is used.

phreaking, phone phreak

Phreaking is the art (or science, depending on your politics) of cracking the phone network, for example to make free long-distance telephone calls or access banking systems which use trigger tones and other similar features to validate financial transactions. Because of its frequent use as an anarchist's weapon and for outright theft, most hackers will deny that phreaking as a valid hacker artform.

See also: [hacker](#), [cracker](#)

[PKZIP \(extended topic\)](#)

Believed by many to be the single most common IBM-compatible software program in use in the world (excluding programs included as part of operating systems such as DOS and Windows). Archiving software designed to combine and compress files for ease of storage and transmission.

PKZIP is the brainchild of Phil Katz, an American programmer. He began his career by developing an archiving and unarchiving program with superior performance to the then market leader, SEA (Systems Enhancement Associates) ARC. He named the program PKARC, but lost a suit with SEA and thus the right to use the name ARC. He subsequently renamed the program to PKPAK, and while ARC software is now obsolete, PKUNPAK is still in wide use for processing the tens of millions of ARC-compressed files still in existence.

Katz later refined the ARC compression routines into his own unique compression scheme known as PKZIP. Its speed, efficiency and versatility soon made it the clear market leader. PKZIP's supremacy was threatened for a brief time in the early 1990s by rival upstart ARJ, created by Robert K. Jung, and the free LHA program created by Haruyasu Yoshizaki. Both offered superior compression results until the 1993 release of PKZIP version 2.x, at which time Katz' software regained and at this writing retains supremacy in the world of IBM-compatible file compression.

See also: [data compression](#), [archive](#)

[<< Last topic](#)

plain old telephone service (POTS)

Standard analog telephone signals such as those used in residential telephone services. Used mainly to distinguish between high-speed fiber optic links or ISDN links and regular phone links.

See also: ISDN

[.plan file](#)

A file that lists anything you want others on the net to know about you. You place it in your home directory on your public-access site. Then, anybody who fingers you, will see this file. [Source: "EFF's Guide to the Internet"] Used with shell accounts only in most cases. Software exists to provide .plan file capability to SLIP/PPP users but it is not in wide use as of this writing.

See also: [dot file](#), [shell account](#), [finger](#)

Point-to-Point Protocol (PPP)

The Point-to-Point Protocol, defined in RFC 1171, provides a method for transmitting packets over serial point-to-point links. [Source: FY14] The protocol of choice for dialup Internet access due to its superior error-checking and overall efficiency of data transfer.

See also: Serial Line Internet Protocol (SLIP), dialup, packet, protocol

port

Networking: A port is a "transport layer demultiplexing value". Each application has a unique port number associated with it. Commonly used port addresses for Internet applications are port 21 for FTP, port 80 for HTTP (World Wide Web), port 6667 for Internet Relay Chat (IRC) etc.

Personal computing: ports are also physical addresses in PCs designed to increase the flexibility of the computer; e.g. the average personal computer has at least three hardware ports available at all times: two serial ports (usually one for modem and one for mouse) and one parallel (usually used for the printer).

Serial ports are used for devices that accept information one bit at a time. Parallel ports are used for devices that accept information eight bits at a time and are generally faster than serial ports. You can assign network paths to a port; for example, if you are printing to a network printer.

See also: Transmission Control Protocol (TCP), User Datagram Protocol (UDP), file transfer protocol (FTP), Hypertext Transport Protocol (HTTP), Internet Relay Chat (IRC), layer, serial port

Portable Network Graphics (PNG)

A format for graphics images gaining in popularity and expected to replace GIF (Graphics Interchange Format) as the graphics format of choice on the Internet some time in 1996/97.

See also: Graphics Interchange Format (GIF)

Post Office Protocol (POP), Points of Presence

A protocol designed to allow single user hosts to read mail from a server. There are three versions: POP, POP2, and POP3. Latter versions are *not* compatible with earlier versions; POP3 is the current standard used by SLIP/PPP dialup email.

Also: **Points of Presence**: A site where there exists a collection of telecommunications equipment, usually digital leased lines and multi-protocol routers.

See also: email, Simple Mail Transport Protocol (SMTP), Serial Line Internet Protocol (SLIP), Point to Point Protocol (PPP), protocol, router

Postal Telegraph and Telephone (PTT)

Outside the USA, PTT refers to a telephone service provider, which is usually a monopoly, in a particular country.

posting

A submitted email message or newsgroup article. So named, because like posting to a bookkeeping ledger or sending letter through the post office, once it's sent, it can't be taken back.

See also: email, USENET

postmaster

The person responsible for taking care of electronic mail problems, answering queries about users, problems with bounced mail and other related work at a site. [Source: ZEN]

See also: bounce, email

POV

Chat abbreviation for **point of view**

Also: **Persistence of Vision**: a popular freeware raytracing graphics package.

See also: Internet Relay Chat (IRC), freeware.

Practical Extraction and Report Language (Perl)

The most common programming language in use for developing programs designed to enhance the features and facility of the World Wide Web. Perl is an interpreted language (meaning it is coded in script and run using a runtime library, not compiled into binary form) developed by Larry Wall <lwall@jpl.nasa.gov>, and distributed over USENET, FTP and the World Wide Web. Despised by "real programmers".

See also: script, USENET, file transfer protocol (FTP), World Wide Web (WWW/W3), Common Gateway Interface (CGI)

Pretty Good Privacy (PGP)

A popular free program used to encrypt data for transmission designed for public use. Its Internet distribution is currently overseen by MIT; it is not legally exportable outside the US although versions of the software are freely available from sites all over the world. PC users: this is a DOS program; several Windows-based front ends to the program are also available. Its encryption scheme is based on DES, and it has proven to be very robust when used correctly, and a royal pain in the neck when used indiscriminately. PGP encrypts data using two keys, one used by the creator of the encrypted document to allow others to send data to them in encrypted form; the other a private key used by the sender to ensure that only the intended recipient sees the unencrypted data.

See also: [encryption](#), [Data Encryption standard](#), [public key](#)

Privacy Enhanced Mail (PEM)

Internet email which provides confidentiality, authentication and message integrity using various encryption methods.

See also: email, Kerberos, encryption, Pretty Good Privacy (PGP)

Private Automatic Branch Exchange (PBX)

The common type of telephone system used by businesses; designed to allow multiple lines and network connectivity.

Prodigy

One of the more recent entries in the online service sweepstakes, Prodigy was founded in 1988 as a joint venture between Sears Roebuck and IBM. Its drawing card at the time, and for many years afterward, was a point-and-click graphical interface which was far simpler to use than the command line interfaces used by market leaders CompuServe and GENie, and both firms soon followed suit with GUI's of their own. It also met with considerable criticism due to the heavy use of corporate advertising as part of the interface. Prodigy is still surviving and apparently thriving with the current online boom.

See also: [online service](#), [CompuServe](#), [GENie](#), [America Online](#)

[prompt \(command prompt\)](#)

Prompts, in DOS and Windows, are your computer's way of asking "What now?" At a prompt the user is expected to either enter a typewritten command or select an item from a menu.

The DOS prompt typically looks like this:

```
C:\>_
```

Also, Internet-related: UNIX command prompt or position where you are expected to enter typewritten or menued commands.

See also: [Internet](#), [UNIX](#)

Prospero

A distributed file system which provides the user with the ability to create multiple views of a single collection of files distributed across the Internet. Prospero provides a file naming system, and file access is provided by existing access methods (e.g., anonymous FTP and NFS). The Prospero protocol is also used for communication between clients and servers in thearchie system.

See also: [anonymous FTP](#), [archie](#), [archive site](#), [Gopher](#), [Network File System \(NFS\)](#), [Wide Area Information Server \(WAIS\)](#)

protocol

A formal description of message formats and the rules two computers must follow to exchange those messages. Protocols can describe low-level details of machine-to-machine interfaces (e.g., the order in which bits and bytes are sent across a wire) or high-level exchanges between application programs (e.g., the way in which two programs transfer a file across the Internet).

[Source: MALAMUD]

See also: [file transfer](#), [external protocol](#)

protocol converter

A device/program which translates between different protocols which serve similar functions (e.g., TCP and TP4).

See also: Transmission Control Protocol (TCP), protocol

Protocol Data Unit (PDU)

"PDU" is internationalstandardscomitteespeak for packet.

See also: packet

protocol stack

A layered set of protocols which work together to provide a set of network functions.

See also: layer, protocol

proxy ARP

The technique in which one machine, usually a router, answers ARP requests intended for another machine. By "faking" its identity, the router accepts responsibility for routing packets to the "real" destination. Proxy ARP allows a site to use a single IP address with two physical networks. Subnetting would normally be a better solution. [Source: RFC1208]

See also: IP address, router, Address Resolution Protocol (ARP)

public domain (PD)

Refers to a work whose copyright has either expired over time or been released to the public by the copyright holder. Property of the public; freely usable in any otherwise legal form.

See also: shareware, freeware

public key

Usually refers to a block of data used with the encryption software Pretty Good Privacy, which uses two keys: one released to the public so that others can send encrypted data, the other kept secret by the owner to allow for secure decryption. This key can be attached to an email message to permit others to send secure encrypted data to the provider of the key. Large collections of keys for PGP are carried on several key servers around the world.

See also: [data encryption key](#), [Pretty Good Privacy \(PGP\)](#), [encryption](#)

queue

A lineup of data awaiting processing. On networks, a queue is a group of packets awaiting transmission. In general computing, queue usually refers to a group of files waiting to be copied to a backup storage medium such as tape or printer data files waiting to be sent to the printer.

See also: packet, network

RBOC

Regional Bell Operating Company. A "baby Bell" telephone service provider set up to service a particular area of the US.

RDR

Redirector; also reader

Read the F*cking Manual (RTFM)

This acronym is often used when someone asks a simple or common question. Also refers to the "RTFM" document repository at MIT and mirrored on several other sites containing a wealth of Internet-related material and general information.

See also: [mirror](#), [FAQ](#)

readme, README files

According to many veteran computer users, these files are so named because people *won't* read them. These are text files containing important information either included with a software package or left in the root directory of an Internet FTP site for the benefit of users. Not intended to be ignored or chuckled at...but to be *read*. In the case of shareware and freeware software, the **README** may be the only documentation available for the program.

See also: file transfer protocol (FTP), Internet, ASCII, shareware, freeware

reassembly

The IP process in which a previously fragmented packet is reassembled before being passed to the transport layer.

See also: Internet Protocol (IP), fragmentation, packet assembler/disassembler, layer

recursive

See: recursive

(Editor's note: This is exactly the definition which appeared in the source Internet Glossary document used as one of the bases for this lexicon.)

Intended to refer to searches through a hierarchical structure (usually of files; e.g. directories), as in "Do you want to recursively pack files in this directory?" (meaning "pack all files in this and all subdirectories?").

Literally, folded in on itself, as in a snake eating its own tail.

remote access server (RAS)

A generic term referring to any software designed to allow remote users on a network to log into a central computer for the purpose of accessing or processing data on that system. RAS' are used to allow dialup connections to networks, connections to bulletin board systems, and also on personal computers to allow owners to access their home systems from a remote location. The RAS is the first piece of software which is encountered when making such a connection.

See also: network, dialup, server, bulletin board system (BBS)

remote login

Operating on a remote computer, using a protocol over a computer network, as though locally attached.

See also: [login](#), [protocol](#), [TELNET](#)

Remote Procedure Call (RPC)

An easy and popular paradigm for implementing the client-server model of distributed computing. In general, a request is sent to a remote system to execute a designated procedure, using arguments supplied, and the result returned to the caller. There are many variations and subtleties in various implementations, resulting in a variety of different (and incompatible) RPC protocols. [Source: RFC1208]

See also: [client](#), [server](#), [protocol](#)

repeater

A device which propagates electrical signals from one cable to another.

See also: bridge, gateway, router

[Request For Comments \(RFC\)](#)

The document series, begun in 1969, which describes the Internet suite of protocols and related experiments. Not all (in fact very few) RFCs describe Internet standards, but all Internet standards are written up as RFCs. The RFC series of documents is unusual in that the proposed protocols are forwarded by the Internet research and development community, acting on their own behalf, as opposed to the formally reviewed and standardized protocols that are promoted by organizations such as CCITT and ANSI.

One of the best sources of RFCs for the general public is the RTFM repository or one of its mirrors.

See also: [For Your Information](#), [STD](#), [protocol](#), [TCP/IP Protocol Suite](#), [CCITT](#), [American National Standards Institute \(ANSI\)](#), [RTFM](#), [mirror](#)

Request For Proposal (RFP)

Interchangeably used for a published submission to the Internet seeking information on how a new technology can or should be implemented, or a means used by firms doing business on the net for tendering jobs or soliciting submissions for project design and coordination.

See also: Request For Comments (RFC)

Reseaux Associes pour la Recherche Europeenne (RARE)

European association of research networks. [Source: RFC1208]

Reseaux IP Europeenne (RIPE)

A collaboration between European networks which use the TCP/IP protocol suite.

Reverse Address Resolution Protocol (RARP)

A protocol, defined in RFC 903, which provides the reverse function of ARP. RARP maps a hardware (MAC) address to an internet address. It is used primarily by diskless nodes when they first initialize to find their internet address.

See also: Address Resolution Protocol (ARP), BOOTP, internet address, MAC address, node, diskless workstation.

RFC 822

The Internet standard format for email message headers. Mail experts often refer to "822 messages". The name comes from "RFC 822", which contains the specification (STD 11, RFC 822). 822 format was previously known as 733 format. [Source: COMER]

See also: STD, Request For Comments (RFC), email

root

The top level of a disk drive or directory structure. In DOS, `c:\` is considered to be the normal root on the vast majority of PCs. Root can also refer to the directory to which a user of a shared computer system is directed to automatically upon login regardless of where that directory might be on a particular computer. Can also refer to the superuser or system administrator's account on a shared system.

See also: system administrator

ROT13

Rotate Text 13 places: a simple way to encode bad jokes, movie reviews that give away the ending, pornography, etc. Essentially, each letter in a message is replaced by the letter 13 spaces away from it in the alphabet. There are online decoders to read these; nn and rn (UNIX utilities) have them built in. [Source: "EFF's Guide to the Internet"]

See also: [UNIX](#), [Electronic Frontier Foundation \(EFF\)](#)

round-trip time (RTT)

A measure of the transmission delay on a network; how much time it takes for a packet of data to get from point A to point B and back again.

See also: packet, network

route

The path that network traffic takes from its source to its destination. Also, a possible path from a given host to another host or destination.

See also: router, host

routed

Route daemon. A program which runs under 4.2BSD/4.3BSD UNIX systems (and derived operating systems such as Linux and FreeBSD) to propagate routes among machines on a local area network, using the RIP protocol. Pronounced "route-dee".

See also: UNIX, Berkeley Software Distribution (BSD), Routing Information Protocol (RIP), gated

router

A device which forwards traffic between networks. The forwarding decision is based on network layer information and routing tables, often constructed by routing protocols.

See also: bridge, gateway, layer, Exterior Gateway Protocol (EGP), Interior Gateway Protocol (IGP)

routing

The process of selecting the correct interface and next hop for a packet being forwarded.

See also: hop, router, Exterior Gateway Protocol (EGP), Interior Gateway Protocol (IGP)

routing domain

A set of routers exchanging routing information within an administrative domain.

See also: Administrative Domain, router

Routing Information Protocol (RIP)

A distance vector, as opposed to link state, routing protocol. It is an Internet standard IGP defined in STD 34, RFC 1058 (updated by RFC 1388).

See also: Interior Gateway Protocol (IGP), Open Shortest Path First IGP, STD, Request For Comments (RFC)

RS-232, RS-232C

The standard specification for serial ports on a personal computer. This standard specifies how pins on serial and parallel cables are assigned and the engineering of the cable and connectors. RS-232 is the standard most often used for serial port connections, and the C stands for Centronics, who developed the current specification for parallel port transmission.

See also: [serial port](#)

SATAN

An acronym for **Security Administrator Tool for Analyzing Networks**. One of the hottest Internet stories of 1995 concerned the public release of this utility designed by Dan Farmer and Wietse Venema which remotely probes systems via the network and stores its findings in a database. Designed for automatically hacking into networks as a means of testing system security, Farmer chose to release it to the public as a means of forcing network administrators to examine their security methods. Sure enough, hackers leapt upon the software and many supposedly secure sites were hacked before system administrators caught on. SATAN doesn't just stop at the target site; it can also extend its search to any other connected network, meaning that the entire Internet was temporarily at risk during SATAN's first public release.

Farmer has vowed to release all future versions of SATAN free to the public, a move which has earned him the contempt of many in the industry and the respect of many others, as a means of forcing the Internet community to pay closer attention to security issues.

SATAN can also be used as a general diagnostic tool and system information collector, but its hacker heritage is what made it noteworthy.

See also: [hacker](#), [cracker](#), [hack](#), [system administrator](#), [network](#)

script

Series of instructions, usually text, used to control the processing of data by an application; usually refers to user-generated instruction sets. **AUTOEXEC.BAT** and **WIN.INI** are examples of scripts. Macros are also referred to as scripts, although not all macros require scripted text files in order to function.

Scripting is also a term used to refer to programming in languages such as PERL or BASIC that use interpreters to process instructions rather than building compiled binary executables. Many telecommunications programs include their own scripting languages.

See also: PERL

search engine

Technically speaking, software on a host system designed to handle database queries by remote users and return the results to the remote user via a network connection.

Slang: the interface between a remote user of a database and the database itself; as in "Just fill in the form on this search engine and it will tell you what you can find here."

See also: Webcrawler, Yahoo, Gopher, Archie, Veronica

secure commerce

Refers to technology relating to the provision of online purchasing and billing using a method of secure data transmission. Secure commerce has been one of the most difficult aspects of the Web, which has been bursting to break out as a full-fledged marketplace.

The difficulty has stemmed from finding a method of encrypting data such as credit card and PIN numbers in a way that does not require an inordinate amount of effort on the part of the customer. Virtually all secure technologies up to late 1995 required what most marketers believed was too much effort on the part of the customer to place the order.

See also: Cypherpunks, secure commerce, Netscape, encryption, public key

Serial Line Internet Protocol (SLIP)

A protocol used to run IP over serial lines, such as telephone circuits or RS-232 cables, interconnecting two systems. SLIP is defined in RFC 1055 and until 1995 was the most common protocol used for connecting Windows and Macintosh users to the Internet using graphical user interfaces. Now largely replaced by most Internet service providers with the more efficient PPP protocol and soon to be retired from service.

See also: [Internet Protocol \(IP\)](#), [RS-232](#), [Request For Comments \(RFC\)](#), [Point-to-Point Protocol \(PPP\)](#)

serial port (communications or COM port)

Refers to both the external sockets on a PC where peripheral serial devices such as mice, modems and printers are connected and to the physical bus addresses in the computer where serial communications data enters and exits the processing system.

Serial ports are one-bit physical connection points on a computer designed for connecting devices requiring longer cable runs than parallel ports. The fact that data does not travel eight bits at a time as it does with parallel ports means there is less chance of the individual signals interfering with each other over longer distances.

Serial ports, like parallel ports, use the RS-232 standard interface (usually a 23-pin or, in the case of most mice, 9-pin connector), but do not use the Centronics standard for pin layout used with parallel ports. Modern PCs have four COM ports, of which only two are normally available. Newer PCs permit access to all four without hardware modifications.

See also: [port](#), [throughput](#), [RS-232](#), [modem](#)

server (daemon)

A provider of resources (e.g., file servers and name servers). Software specifically designed for this job is referred to as a daemon.

See also: client, Domain Name System, Network File System.

Daemon is an acronym for **disk and execution monitor** and is program that waits for specific input before responding. For example, sending an email message to a non-existent user invokes (note the reference to magic and mythology) the target computer's mailer daemon, which would then reply to the sender with an error message. The term has become bastardized and now represents any type of server used on the Internet that responds automatically to specific input, as opposed to an automated server that does not wait for input before acting, such as a listserv/autoresponder.

See also: [gated](#), [identd](#), [routed](#), [fingerd](#), [autoresponder](#), [file server](#), [server](#), [listserv](#)

Server-Requester Programming Interface (SRPI)

A major subset of lu6.2/APPC. A series of IBM interface tools for developing interactive host/PC applications.

See also: Systems Network Architecture

shareware

A method of software distribution developed in the early 1980s as a means of allowing free distribution of commercial-quality software on BBS', online services and via low-cost disk sales which allows the author to still be paid for their work.

Shareware originally meant any software offered expressly to be shared between users but has since become a term synonymous with try-before-you-buy. The idea is to allow the user a free trial period of the software (usually 30 days) before requiring that payment be made for the software if it is kept.

Shareware typically offers bonuses to those who pay to register a license for the software, since it is traditional not to cripple try-before-you-buy in any fashion, and without an incentive to purchase most people will not register the software. This help tool was originally shareware.

See also: freeware, public domain (PD)

Shase (The Virtual Software Library)

Possibly the largest online database of free and shareware software for PCs in existence. Formerly known as Shase and managed out of Switzerland, it is now under the administration of c|net and in mid-1995 was renamed The Virtual Software Library. VSL maintains detailed listings of tens of thousands of programs for the IBM-compatible, Mac, and UNIX and offers the finest point-and-click interface for finding and downloading information from the Internet offered to date.

See also: [search engine](#), [Simtel](#), [CICA](#), [archie](#)

shell

A seashell is designed to hold the creature who lives in it and make its life easier. In computing terms shells have pretty much the same purpose. They are programs whose reason for existence is to make other programs easier to live with.

Shells function as interfaces or interpreters between software and hardware or software and other software. DOS itself is a shell...a shell for the chips in a computer. But even if you were a DOS expert, you would be totally lost if you had to communicate directly with DOS. You would need to think and communicate in a completely different way in order to use your computer. So DOS uses its own shell program, a program called **COMMAND.COM**, as an interpreter. **COMMAND.COM** "traps" mistakes so that you can't bring DOS to a crashing halt by typing the wrong command at the wrong time. It also traps the mistakes of other programs, and for exactly the same reason. Most useful of all, it communicates, or at least tries to communicate, with you in something that might occasionally look like plain English. [Source: First Train for the Internet]

shell account

A special type of account available from most Internet service providers. Allows direct command-line access to the host system. Advantages: the ability to work directly with the host computer as if the user was sitting directly in front of it. Disadvantages: difficulty in acquiring and implementing software designed for more advanced graphical user interface (GUI) features of the World Wide Web.

See also: UNIX, Serial Line Internet Protocol (SLIP)

signature

The three or four line message at the bottom of a piece of email or a USENET article which identifies the sender. Often used as a method of personalizing USENET postings and email. Many include quotes, small ASCII drawings or advertising. Large signatures (over five lines) are generally frowned upon.

See also: [.plan file](#), [ASCII graphics](#), [email](#), [USENET](#)

Simple Mail Transfer Protocol (SMTP)

A protocol, defined in STD 10, RFC 821, used to transfer electronic mail between computers. It is a server to server protocol, so other protocols are used to access the messages.

See also: [email](#), [Post Office Protocol \(POP\)](#), [Request For Comments \(RFC\) 822](#)

Simple Network Management Protocol (SNMP)

The Internet standard protocol, defined in STD 15, RFC 1157, developed to manage nodes on an IP network. It is currently possible to manage wiring hubs, toasters (real ones, not ToasterNets), jukeboxes, etc. using SNMP as the remote protocol for transmitting messages to the devices being controlled.

See also: STD, Request For Comments (RFC), ToasterNet, node, Management Information Base

SimTel

SIMTEL20 is the White Sands Missile Range which used to maintain a giant collection of free and low-cost software of all kinds, which was "mirrored" to numerous other ftp sites on the Net. In the fall of 1993, the Air Force decided it had better things to do than maintain a free software library and shut it down. But the collection lives on, now maintained by a Michigan company. [Source: "EFF's Guide to the Internet"] SimTel is the world's most popular Internet archive for MS-DOS software and one of the two most popular archives for Windows; the other is CICA at the University of Indiana.

See also: [Virtual Software Library](#), [CICA](#), [file transfer protocol \(FTP\)](#)

site

Generic term; a location -- *any* location -- where data is stored or where users can log into the net or parts of it. Site and domain are not the same thing. If you are online right now, you are currently connected to your provider from your own client site, or *remote* site, to the provider's *host* site. From there you can access other host sites.

See also: host, client, node

snail mail

Postal mail, as opposed to email. So named due to its relative speed of delivery compared to email.

See also: email

socket

Generally speaking, a network connection of the type used by TCP/IP networks such as the Internet. Sockets allow multiple applications to be accessed at the same time, so that a user can FTP a file from one source while continuing to browse the Web or download email.

From the Dictionary of Computing: "Stems from the Berkeley UNIX mechanism for creating a virtual connection between processes. Sockets form the interface between UNIX standard I/O and network communication facilities. They can be of two types, stream (bi-directional) or datagram (fixed length destination-addressed messages). The socket library function socket creates a communications end-point or socket and returns a file descriptor with which to access that socket. The socket has associated with it a socket address, consisting of a port number and the local host's network address."

See also: winsock, UNIX, Berkeley Software Distribution (BSD), datagram, port, network address, download.

source routing

A dynamic data transmission method used for sending data from computers connected to one network to computers connected to other subnetworks. Data packets in a source routing scheme contain "address" data telling the network the requested destination of the data. Source routing automatically selects the quickest possible route at the expense of a slight reduction in overall system performance.

See also: dynamic adaptive routing, bridge, Local Area Network (LAN), router

spam

Refers to the posting of copies of the same message to multiple newsgroups, particularly newsgroups with similar themes where readers will likely confront the same message several times; also refers to posting a message to any newsgroup which has no relevance to the newsgroup's subject matter. Relates to the alleged lack of nutritional quality and substance of the luncheon meat from which the term derives its name.

See also: USENET, flame cross-post

special interest group (SIG)

A group of individuals, either organized or loose-knit, gathered for a common purpose, usually computer-related. Newsgroups on USENET are referred to as SIGs from time to time; it would probably be more accurate to refer to their participants as the SIG rather than the newsgroup itself. Subgroups within computer clubs devoted to specialized aspects of computing are also known as SIGS.

Also: **sig** (uncapitalized): signature

See also: Birds of a Feather, signature

spike, line surge

A sharp, short-term increase in voltage through electrical circuits, feared by computer users due to the capacity of a line surge to fry electronic components.

spoiler

A series of blank lines, often preceded by a text warning, inserted into an email or USENET post which the poster believes might be offensive or otherwise uncomfortable to the reader.

Spoilers are used in hint files for games, in newsgroups frequented by trauma victims in recovery, book and movie groups where readers may not want to have plot details revealed, and humor groups where the humor might be deemed to be in poor taste or offensive to some groups.

See also: ROT13, USENET

Sprintnet

The division of Sprint Communications (best known as the "other" long-distance telephone service provider) responsible for a large percentage of Internet backbone facilities for the US and Canada.

See also: Internet access provider (IAP), backbone

srv/serv

Server; network server; also used to denote any piece of software designed to provide information on request. Also used as a suffix for processes designed to serve data; for example a *listserv*, which serves data to a mailing list, or *gameserv* which automatically serves data to a computer game, perhaps acting as a robot "host" for the game.

See also: server, listserv

Standard Generalized Markup Language (SGML)

An ANSI document format standard gaining in popularity; believed by many to be the most likely candidate to become "the" document format for transporting documents cross-platform. Used in many places on the World Wide Web, provides far superior hypertext capabilities to HTML and is therefore far more complex.

See also: American National Standards Institute (ANSI), Hypertext Markup Language (HTML), hypertext

STD

A subseries of RFCs that specify Internet standards. The official list of Internet standards is in STD 1.

See also: [For Your Information \(FYI\)](#), [Request For Comments \(RFC\)](#)

stop bit

In telecommunications, start and/or stop bits send by the host computer signal the remote computer where the data character (7 or 8 bits) begins or ends.

See also: parity

stream-oriented

A type of transport service that allows its client to send data in a continuous stream. The transport service will guarantee that all data will be delivered to the other end in the same order as sent and without duplicates. [Source: MALAMUD]

See also: Transmission Control Protocol (TCP)

Structure of Management Information (SMI)

The rules used to define the objects that can be accessed via a network management protocol. This protocol is defined in STD 16, RFC 1155. [Source: RFC1208]

See also: STD, protocol, Management Information Base

structured, enhanced text (setext)

A markup system using HTML formatting tags that provides a way to format ASCII plain-text documents with visually unobtrusive anchors to parts of it above the paragraph level. Designed to allow easy navigation with long textfiles designed for World Wide Web distribution, but also used to add simple formatting to otherwise drab text documents without performing a full HTML format, and for providing point-and-click links to other resources in otherwise plain-text documents.

See also: [Hypertext Markup Language \(HTML\)](#), [tag](#), [ASCII](#), [World Wide Web \(WWW/W3\)](#), [link](#)

Structured Query Language (SQL)

A world standard database language originally proposed in the early 1970s by IBM mathematician E.F. Codd. This extremely powerful database language is the new standard for cross-platform database compatibility, particularly on networks, and supports advanced features such as fully relational queries (searches) and advanced data management, security and recovery techniques.

stub network

A stub network only carries packets to and from local hosts. Even if it has paths to more than one other network, it does not carry traffic for other networks.

See also: [backbone](#), [transit network](#)

subnet

A portion of a network, which may be a physically independent network segment, which shares a network address with other portions of the network and is distinguished by a subnet number. A subnet is to a network what a network is to an internet.

See also: [internet](#), [network](#)

subnet address

The subnet portion of an IP address. In a subnetted network, the host portion of an IP address is split into a subnet portion and a host portion using an address (subnet) mask. Also known as subnet number.

See also: address mask, IP address, network address, host address

Sun Microsystems

Manufacturer of high-powered microcomputers based in the US, their workstation computers have been the computers of choice for high-end graphical applications and commercial Internet service providers (the IBM-compatible has become more popular in recent years thanks to the growth of the Linux and BSD operating systems and the advent of parallel processing with the Pentium series chip).

See also: [Java](#), [workstation](#), [Linux](#), [Berkeley Software Distribution \(BSD\)](#).

Switched Multimegabit Data Service (SMDS)

An emerging high-speed datagram-based public data network service developed by Bellcore and expected to be widely used by telephone companies as the basis for their data networks.
[Source: RFC1208]

See also: Metropolitan Area Network (MAN), datagram

sysadmin/admin

System administrator; person who maintains a network or computer system.

sysop

System operator; refers usually to the operator of a bulletin board system.

See also: bulletin board system (BBS)

Systems Application Architecture (SAA)

IBM's specification of software applications, communication protocols and user interfaces.

See also: [protocol](#)

Systems Network Architecture (SNA)

A proprietary networking architecture used by IBM and IBM-compatible mainframe computers; an organized structure for multiple computer/communications networks [Source: NNSC]

See also: mainframe, network

Systems Network Architecture Distribution Services (SNADS)

IBM email service facility not requiring direct mainframe intervention.

See also: Systems Network Architecture (SNA), email, mainframe

T-1

An AT&T term for a digital carrier facility used to transmit a DS-1 formatted digital signal at 1.544 megabits per second. The type of hardware most small-volume Internet providers use if they are connecting directly to the backbone as opposed to getting a feed from another provider.

See also: DS-1, Internet access provider (IAP), backbone

T-3

A term for a digital carrier facility used to transmit a DS-3 formatted digital signal at 44.746 megabits per second. [Source: FY14] The type of hardware most small-volume Internet providers wish they could afford.

See also: DS-3, Internet access provider (IAP), backbone

tag

A formatting command, generally refers to formatting commands added to World Wide Web documents created using HTML. Tags are readily identifiable in HTML- and SGML-formatted documents as they all begin and end with angle brackets (e.g. `` is a tag designed to display a graphical image file named **MYPICTUR.GIF**).

See also: [Hypertext Markup Language \(HTML\)](#), [Standardized General Markup Language \(SGML\)](#)

talk

A protocol which allows two people on remote computers to communicate in a real-time fashion.

See also: [Internet Relay Chat \(IRC\)](#)

tar

Tar is a program used primarily on UNIX machines for the purpose of transmitting large numbers of files over network lines. While tar does not perform data compression, it does chain all files in a selected group into one single file, complete with directory structure, so that the archive can be reconstructed at the other end as sent. Tar is still used on the Internet to archive source code and other groups of small files, but it is primarily in place as a preprocessor to establish directory structure and simplify housekeeping. Most tar archives are processed a second time with a data compression program (in most cases GZIP is used for posting files to the Internet) to further reduce file size. GZIP is capable of uncompressing archives as well as decoding the resulting tars, making this the obvious choice for posting UNIX archives.

See also: [PKZIP](#), [GZIP](#), [archive](#), [data compression](#)

TCP/IP Protocol Suite

Transmission Control Protocol over Internet Protocol. This is a common shorthand which refers to the suite of transport and application protocols which runs over IP. These include (and see also:) Internet Protocol (IP), Internet Control Message Protocol (ICMP), Transmission Control Protocol (TCP), User Datagram Protocol (UDP), file transfer protocol (FTP), TELNET, Hypertext Transport Protocol (HTTP), Network News Transfer Protocol (NNTP), Simple Mail Transport Protocol (SMTP), Simple Network Management Protocol (SNMP)

Technical and Office Protocol (TOP)

A Boeing-developed, seven-level, ISO-compatible language top for network communications.

See also: [OSI Reference Model](#)

Telescript

In response to the problem of too many communications standards and too few norms, the US firm General Magic developed Telescript. It's an interpreted (uncompiled, or non-binary) language that works independently of all communications protocols and network transport layers. Although it holds hope of being the "protocol of the future" and has been highly touted by many industry-watchers, as of mid-1995 it was still something of a curiosity.

See also: [protocol](#), [layer](#), [OSI Reference Model](#)

Teletypewriter (TTY)

Terminal emulation mode compatible with the IBM keyboard (most older terminal emulation modes used proprietary keyboard layouts). An archaic emulation scheme; only used today for network and modem communications in situations where graphics and menuing are either undesirable or unavailable.

See also: terminal emulator, VT-100

TELNET

TELNET is the Internet standard protocol for remote terminal connection service. It is defined in STD 8, RFC 854 and extended with options by many other RFCs. TELNET is the protocol used to access most command-line based search engines, MUDs, BBS' connected to the Internet, and many other nongraphical information services.

See also: TCP/IP Protocol Suite, terminal, multi-user domain (MUD), bulletin board system (BBS), Request For Comments (RFC), STD

terminal

Refers either to a diskless workstation (a monitor, keyboard and perhaps a mouse and a minimal processor) connected to a network or a hardware pin or connector end. Usually confused with terminal emulator; a terminal emulator is what most PCs use for connecting to dialup networks such as BBS' and Internet.

See also: diskless workstation, terminal emulator, bulletin board system (BBS), Internet

Terminal Access Controller (TAC)

A device which connects terminals to the Internet, usually using dialup modem connections and the TACACS protocol.

See also: [dialup](#), [terminal](#), [Internet](#)

terminal emulator

A program that allows a computer to emulate a terminal. The workstation thus appears as a terminal to the remote host. [Source: MALAMUD] On PCs terminal emulators are needed for connecting to BBS' and TELNET sites. Terminal emulators are often incorrectly referred to as "terminal programs" or "modem programs"

See also: terminal, TELNET, bulletin board system (BBS), modem

terminal server

A device which connects many terminals to a LAN through one network connection. A terminal server can also connect many network users to its asynchronous ports for dial-out capabilities and printer access.

See also: Local Area Network (LAN) terminal, asynchronous communications, port

thread

Two common meanings. In telecommunications, it refers to the "thread of conversation" in a series of messages. These messages can be simple one-line statements typed live at the terminal on IRC, or whole email messages or postings to USENET newsgroups and mailing list discussion groups. The term stems from leaving a trail of thread in a maze which can be followed back to the entrance.

As with most group discussion, there can be several "threads of conversation" going on at once. For this reason, it is common practice to keep the same subject line for each response to a topic so that people can follow the conversation on a given subject in a busy mailing list or newsgroup. Following the discussion from the initial statement or posting through to the most recent postings is known as threading.

In general computing, a thread is a task or process that operates on its own and uses its own share of the CPU's processing power. A single application could have several threads, and each running program on a multitasking operating system is at least one thread.

See also: terminal, USENET, Internet Relay Chat (IRC), newsreader, mailing list, posting

three-letter acronym (TLA)

A tribute to the use of acronyms in the computer field.

See also: extended four letter acronym

throughput

Term used to describe the amount of data transmitted or transmittable over a given phone line; used to measure the speed of a particular connection. Throughput is generally measured in kilobytes (not bits) per second. Acceptable throughput on a fast Internet connection for file transfers are 1.4kb/s for 1.44kbaud modems, and 2.5kb/s for 2.88kbaud modems.

See also: baud, bandwidth file transfer

TIM

Token/Net Interface Module

Time Sharing Option (TSO)

MVS environment providing time sharing from remote terminals.

See also: [mainframe](#), [network](#), [terminal](#)

Time to Live (TTL)

A field in the IP header which indicates how long this packet should be allowed to survive before being discarded. It is primarily used as a hop count. [Source: MALAMUD] TTL also refers to older-style monochrome monitors and display adapters.

See also: [header](#), [Internet Protocol \(IP\)](#), [hop](#)

timeout

Timeout does not usually refer to a delay in the action that can be resumed later, but a delay that cannot be resumed. Timeouts are usually used to indicate that a specific device, usually a printer, disk or modem, is not responding as expected.

Timeout delays are usually configured in software so that allowances can be made on specific systems for slow components or network congestion. When a device times out, the operation usually has to be performed all over again and cannot usually be resumed. For example, when a modem times out when connected to a BBS or Internet provider, the modem must be disconnected from the network and a fresh connection must be made.

See also: modem, bulletin board system (BBS), congestion, Internet provider, network

TN3270

A variant of the TELNET program that allows one to attach to IBM mainframes and use the mainframe as if you had a 3270 or similar terminal. [Source: BIG-LAN]

See also: [TELNET](#), [mainframe](#), [IBM 3270](#), [terminal](#)

token ring

A token ring is a type of LAN with nodes wired into a ring. Each node constantly passes a control message (token) on to the next; whichever node has the token can send a message. Often, "Token Ring" is used to refer to the IEEE 802.5 token ring standard, which is the most common type of token ring.

See also: 802.x, Local Area Network (LAN), node

ToasterNet

A variation on freenets; a small-scale cooperative IP network where users share the cost.

See also: [Internet Protocol \(IP\)](#), [freenet](#)

top level domain

Refers to the domain name assigned to a specific branch of the Internet. Usually assigned based on country, but in many instances by type as well. The top-level domain appears as the last part of the domain's name. Some of the best-known top level domains are: .COM (commercial), .EDU (educational), .NET (network operations), .GOV (US government), and .MIL (US military). Most countries also have a domain. For example, .US (United States), .UK (United Kingdom), .AU (Australia).

A complete chart of top level domains as of July, 1995 is available as a [separate topic](#).

See also: [Domain Name System \(DNS\)](#), [InterNIC](#)

topology

A frequently-used term when discussing the layout of networks of all sizes. It generally describes the cabling and physical layout of the computers in a network. Most commonly it is used to describe network type; e.g. "star" topology denotes a network of several computers that must all communicate through a central network, whereas in "ring" topology the computers are cabled in a sequential ring and do not necessarily have a central host computer. A network's topology shows the computers and the links between them. Information about the topology of a network is necessary for routing packets of data to their proper destination.

See also: token ring, network

transceiver

Transmitter-receiver. The physical device that connects a host interface to a local area network, such as Ethernet. Ethernet transceivers contain electronics that apply signals to the cable and sense collisions. [Source: RFC1208]

See also: Ethernet

transit network

A transit network passes traffic between networks in addition to carrying traffic for its own hosts. It must have paths to at least two other networks.

See also: backbone, stub network

Transmission Control Protocol (TCP)

An Internet Standard transport layer protocol defined in STD 7, RFC 793. It is connection-oriented and stream-oriented, as opposed to UDP.

See also: OSI Reference Model, connection-oriented, stream-oriented, User Datagram Protocol (UDP)

trojan horse

A computer program which carries within itself a means to allow the creator of the program access to the system using it.

See also: virus, worm

z

trolling

The act of deliberately baiting the unwary by the use of inflammatory statements, falsehoods and unenforceable threats. A common and highly questionable practice among many hackers and Internet veterans to what appear to them to be ignorant or abusive behavior, particularly on IRC and in newsgroups. "EFF's Everybody's Internet Update" suggests a typical troll as posting a message to the *rec.pets.cats* newsgroup listing 101 uses for a dead cat in the middle of a heated discussion. The poster does this precisely because they know it will evoke a reaction.

See also: flame, newbie, posting, Electronic Frontier Foundation (EFF), USENET

Trumpet

The Australian software developers responsible for the most popular Internet connection software in the world in 1994/95. Trumpet's winsock, developed by Peter Tattam, was the first relatively stable 16-bit winsock application capable of dialup SLIP/IP which was offered as shareware, and it quickly became a world standard. Trumpet's efforts do not appear to have been rewarded; after several updates and upgrades over an 18-month period, they eventually released Version 2.1 of the software with a 30-day time bomb. The unfortunate fact was that millions of Internet users were given the Trumpet winsock as part of their dialup starter software bundle without being told that they were legally obliged to pay for the software after thirty days of use. Trumpet has also released a set of Internet utilities for Windows including a newsreader, IRC and TELNET client, but the winsock and dialler programs were what truly put them on the map.

See also: [winsock](#), [Internet-in-a-Box](#), [socket](#), [Chameleon](#), [Twinsock/The Internet Adapter](#).

TS

Terminal server.

See also: terminal, server

tunnelling

Tunnelling refers to encapsulation of protocol A within protocol B, such that A treats B as though it were a datalink layer. Tunnelling is used to get data between administrative domains which use a protocol that is not supported by the internet connecting those domains.

See also: Administrative Domain (AD) protocol, layer, domain

TUT

Tutorial

twinax

Twinaxial wire: used to connect terminals to controllers.

See also: coaxial, 10baseT

Twinsock, The Internet Adapter

Twinsock is a free program developed in Canada designed to allow UNIX/shell account Internet users to use their accounts for SLIP access. The Internet Adapter (TIA) is a commercial product developed for the same purpose.

Little known outside of hacker circles, as of mid-1995, Twinsock was probably the best of the freeware/shareware winsock emulators for emulating a SLIP connection under UNIX command line, allowing those who successfully installed the product the best of both worlds. TIA, while costlier, is less difficult to implement and supports many more connection schemes than Twinsock.

See also: [shell account](#), [hacker](#), [Serial Line Internet Protocol \(SLIP\)](#), [winsock](#)

twisted pair

A type of cable in which pairs of conductors are twisted together to produce certain electrical properties.

See also: coaxial, 10baseT

UART, USRT

Universal asynchronous receiver/transmitter: a type of chip required for serial communications such as modem communications. The old standard was **8250** which had limited data throughput due to its 8-bit bus width; the current standard is **16550** has a 16-bit bus which permits accurate throughput of data at speeds up to 115kbaud, the top end for most 28.8kbaud modems capable of data compression. Universal *Synchronous* Receiver/Transmitter (USRT) and USART are far less common.

See also: serial port, modem, baud

Undernet

An alternative IRC network to the older and larger EFNet which sprang up in the early 1990s. In mid-1995 it typically had about 2,000-2,500 users during North American prime time, about one-fifth the number on EFNet.

See also: [lag](#), [netsplit](#), [EFNet](#), [Internet Relay Chat \(IRC\)](#)

Uniform Resource Locator (URL)

An Internet address, generally offered in World Wide Web-compatible syntax. Follows a standard format, which includes the protocol, followed by a colon and two forward slashes, followed by the domain, followed by the physical or *aliased* address of the file or program requested.

Example:

```
http://www.netfolks.com/total/farsighted.html
```

http:// signifies that the protocol is hypertext transfer; *www.netfolks.com* specifies the host computer where the resource is located, and */total/farsighted.html* specifies that the resource is a file called farsighted.html located in a directory either called *total* or aliased so that *total* will direct the user to the appropriate directory.

See also: World Wide Web (WWW/W3) protocol, Hypertext Transfer Protocol (HTTP)

Universal Information Service (UIS)

AT&T's next generation ISDN replacement product.

See also: Integrated Services Digital Network (ISDN)

Universal Time Coordinated (UTC)

Same as Greenwich Mean Time.

UNIX

Operating system created at Bell Laboratories, UNIX was based on the C language and engineered for portability across hardware platforms. Considered by hackers to be the most flexible and powerful operating system in existence today.

There are two major types of UNIX: System V, developed by AT&T; and BSD 4.x, created at the University of California at Berkeley. The former is the basis for most high-end corporate and industrial UNIX systems; the latter is the popular choice with smaller businesses and institutions. The two types are not as compatible as their sub-types.

Among the most popular sub-types of BSD 4.x are Linux and FreeBSD, which are extensively used in small-scale Internet provision. UNIX is rarely used on home computers except by hackers or hackers-at-heart, although its use is growing as PC power increases and Linux/FreeBSD software databases grow.

See also: [Linux](#), [Berkeley Software Distribution \(BSD\)](#), [hacker](#)

UNIX-to-UNIX copy (UUCP)

This was initially a program run under the UNIX operating system that allowed one UNIX system to send files to another UNIX system via dialup phone lines. Today, the term is more commonly used to describe the large international network which uses the UUCP protocol to pass news and email.

See also: UNIX, protocol, email, USENET

urban legend

A story, which may have started with a grain of truth, that has been embroidered and retold until it has passed into the realm of myth. It is an interesting phenomenon that these stories get spread so far, so fast and so often. Urban legends never die, they just end up on the Internet! Some legends that periodically make their rounds include "The Infamous Modem Tax," "Craig Shergold/Brain Tumor/Get Well Cards," and "The \$250 Cookie Recipe". [Source: LAQUEY]

US Robotics

The world's most successful modem manufacturers since the late 1980s. Known as manufacturers of high quality modems at reasonable consumer-level prices, their Sportster model has been the single largest-selling line of modems in history. Also famous for the notorious HST protocol and for their higher-end Courier modems. Loved by users and servicepeople alike for their ease of use, reliability and overall simplicity of installation; hated for their tendency to develop new high-speed data transmission standards that don't become adopted industry-wide and limit the compatibility of their hardware.

See also: [HST](#), [modem](#)

USENET (Netnews)

The sum total of a collection of thousands of typically named **newsgroups** (public messaging discussion groups devoted to a particular topic), the computers which run the protocols, and the people who read and submit USENET news. Not all Internet hosts subscribe to USENET and not all USENET hosts are on the Internet. [Source: NWNET] Archaic: Netnews.

See also: special interest group (SIG), Network News Transfer Protocol (NNTP), UNIX to UNIX Copy Protocol (UUCP)

User Datagram Protocol (UDP)

An Internet Standard transport layer protocol defined in STD 6, RFC 768. It is a connectionless protocol which adds a level of reliability and multiplexing to IP.

See also: Internet Protocol (IP), layer, STD, Request For Comments (RFC), connectionless, Transmission Control Protocol (TCP)

username

On most host systems, the first time you connect you are asked to supply a one-word user name. This can be any combination of letters and numbers. [Source: "EFF's Guide to the Internet"] That name is then used for all subsequent connections. Usernames are rarely the same as actual persons' names and cannot include spaces. Username and login are occasionally used synonymously.

See also: login.

UUE/UUD (uucode/uuencoding/uudecoding)

A method of encoding binary (non-text) files into a format using standard characters used in text messages and a fixed line length of 62 characters to enable transmission of binary data on networks such as email or USENET which do not normally permit transmission of non-text data. Frequently used to post binary files to newsgroups.

See also: [attachment](#), [USENET](#)

[V.xx data conversion standards](#)

V.xx denotes the standard for data conversion used by a given modem and indicates its capability for built-in error correction and data compression. Standards for V.xx are laid down by CCITT.

V.14: A standard in data conversion used in all V.32 and V.32*bis* modems

V.17: The CCITT standard that specifies fax transmission and reception at 14,400 bps.

V.21: The CCITT standard that specifies modem transmission at 300 bps.

V.22: The CCITT standard that specifies modem transmission at 1200 bps with a fallback rate of 600 bps. (Fallback rate is the transmission rate used by both ends of the connection if they fail to achieve a stable connection at the highest transmission rate.)

V.22*bis*: The CCITT standard that specifies modem transmission at 2400 bps.

V.32: The CCITT standard that specifies modem transmission at 9600 bps with a fallback rate of 4800 bps.

V.32*bis*: The CCITT standard that specifies modem transmission at 14,400 bps with a fallback rate of 12,000 and 7200 bps.

V.32*terbo*: An unofficial standard that specifies modem transmission at 19,200 bps with a fallback rate of 16,800 and also the rates supported by V.32 and V.32 *bis*.

V.34: A CCITT standard that specifies modem transmission at 28,800 bps with many fallback rates.

V.42: A CCITT error correction protocol which includes MNP levels 1-4 and supports LAP/M error correction.

V.42*bis*: A CCITT standard for data compression. A modem equipped with V.42 *bis* also includes V.42 error correction and MNP-5 data compression. Almost all new modems being sold today comply with V.42*bis*.

V.FAST: An unofficial standard that specifies modem transmission at 28,800 bps with fallback rates. This is also known as V.FC, a standard proposed and marketed by US Robotics and not supported by the industry. Most consumer experts recommend avoiding high-speed V.FAST modems which are not upgradeable with software.

See also: [CCITT](#), [HST](#), [US Robotics](#), [protocol](#)

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VAN

Value-added networking

vendor-independent mail (VIM)

A standard for developed by Lotus which allows programs using it to send email regardless of the application type. With Windows and OS/2, VIM calls a DLL which provides an interface to email capabilities on the computer using it.

See also: [email](#), [MAPI](#)

Veronica

An acronym for **Very Easy Rodent-Oriented Net-wide Index to Computerized Archives**. Veronica accesses Gopher databases as if they were clickable items in a file management program. Veronica is a search tool designed to hunt through databases; Gopher or a Gopher-integrated tool such as a Web browser must still be used to retrieve the desired documents.

One of several "sillynym" search engines designed on the archie model named for characters in the Archie comics series. Others include Reggie and Jughead.

See also: archie, Gopher, search engine.

videoconferencing

A relatively new technology that permits voice and video to be transmitted, usually over satellite or Internet connections, between two geographical locations. Videoconferencing software is widely available (**CU-SeeMe**, for example, is available free on the Internet) but in order to make effective use of the software, expensive hardware is needed.

Among the requirements for videoconferencing are peripheral devices capable of capturing and decoding audio and video signals, a microphone and a video camera. Audio signals require massive amounts of data, video even more, and a high speed 28.8kbaud modem is barely tolerable for videoconferencing over the Internet. Ideally a high-speed connection such as an ISDN line is needed.

Inexpensive videoconferencing software is expected to appear some time in 1996 but for the time being it is pretty much limited to the corporate and academic worlds.

See also: duplexing, baud, modem, Integrated Services Digital Network (ISDN)

viewer

Generally refers to a program usually meant to be used as an extension program to a World Wide Web browser for using or browsing file types not supported by the browser program itself, as in "You'll need an MPEG viewer to see that 30-second video clip from Star Wars." Can also refer to any program designed for browsing formatted datafiles.

See also: MPEG, World Wide Web (WWW/W3), browser

virtual circuit

A network service which provides connection-oriented service regardless of the underlying network structure.

See also: connection-oriented

Virtual Reality Modelling Language (VRML)

A relatively new (late-1994) development on the Internet; a means of extending the capabilities of the World Wide Web by allowing 3-D interaction between the user and the host site. Still primitive due to the intensity of the programming involved and the memory requirements of the client software. VRML refers either to the programming language used to develop 3-D Web sites, the content of the sites themselves, or the emulation required by the client software.

See also: [World Wide Web \(WWW/W3\)](#)

Virtual Telecommunications Access Method (VTAM)

Software that manages input/output between a host mainframe and other computers.

See also: [mainframe](#)

virus

A program which replicates itself on computer systems by incorporating itself into other programs which are shared among computer systems. See also: hacker, trojan horse, worm

VT52, VT100, VT102

Types of terminal emulation supported by many communications programs. VT52 is the common type used on bulletin board systems when ANSI is not available, and VT100 is the most commonly used on the Internet. VT102 is a newer version of VT100 which supports color. These emulations offer improvement over standard TTY (Teletypewriter) by permitting onscreen menus instead of just scrolling text.

See also: [Teletypewriter \(TTY\)](#), [terminal emulator](#)

warez

Hacker slang for pirated (illegal or unlicensed) software. Warezing is the practice of trading in pirated software, usually as a hobby but often as a means of acquiring software tools the user would not otherwise be able to afford or wish to purchase.

Webcrawler

A blazingly fast World Wide Web search engine that performs Web and Gopher searches for specific words in its database. Purchased by America Online in 1995; at the time it was able to perform full-text word searches on over 150,000 different Web/Gopher documents.

See also: Gopher, America Online, World Wide Web (WWW/W3), Yahoo, search engine

webmaster

Administrator of a World Wide Web domain.

See also: postmaster, sysadmin, domain

The WELL

A network based in Sausalito, California best known for serving San Francisco, and probably the most famous Internet provider in the US prior to Netcom, CompuServe and AOL's entries into Internet provision. Founded by the creators of the Whole Earth Catalog and Whole Earth Review, the WELL is a full-fledged online service as well as an Internet provider, and was one of the first to provide Internet café's in the US.

See also: Internet service provider (ISP), Netcom, CompuServe, America Online

white pages

One of several Internet databases containing basic information about users, such as email addresses, telephone numbers, and postal addresses. These databases can be searched to get information about particular individuals. Referred to as "white pages" because they mimic the effect of a telephone white pages, but none of them are nearly as complete as an actual metropolitan phone book.

See also: [Knowbot](#), [WHOIS](#), [X.500](#)

WHOIS

An Internet program which allows users to query a database of people and other Internet entities, such as domains, networks, and hosts, kept at the DDN NIC. The information for people shows a person's company name, address, phone number and email address.

[Source: FY14]

See also: Defense Data Network Network NIC, white pages, Knowbot, X.500

Wide Area Information Servers (WAIS)

A distributed information service which offers simple natural language input, indexed searching for fast retrieval, and a "relevance feedback" mechanism which allows the results of initial searches to influence future searches. Public domain implementations are available.

See also: [archie](#), [Gopher](#), [Prospero](#).

Wide Area Network (WAN)

A network, usually constructed with serial lines, which covers a large geographic area.

See also: Local Area Network (LAN), Metropolitan Area Network (MAN)

wide area network (WAN)

Describes a network not limited to one building or small geographical area, such as a network of computers spread over a metropolitan area. In a sense, the Internet is the ultimate Earthbound WAN.

See also: Local Area Network (LAN), Metropolitan Area Network (MAN), network

Wide Area Telecommunications Service (WATS)

Message telephone service designed to provide low-cost access to high-volume long-distance telephone usage.

winsock

The Windows Sockets specification defines a network programming interface for Microsoft Windows which is based on the "socket" paradigm popularized in the Berkeley Software Distribution (BSD) from the University of California at Berkeley. It encompasses both familiar Berkeley socket style routines and a set of Windows-specific extensions designed to allow the programmer to take advantage of the message-driven nature of Windows. [Source: The Windows Sockets FAQ]

Software that permits Windows to communicate network-style to the Internet over a regular TCP/IP network or a dialup connection. In the opinion of some Internet veterans, the software development that turned the Internet from an expert tool to a novice toy. Not truly standardized until the release of Windows 95, which included its own revision 2.0-compatible winsock. (The Windows 3.11/Windows for Workgroups winsock, known as wolverine, didn't allow dialup connections.)

See also: [Chameleon](#), [Trumpet](#), [Twinsoc](#), [socket](#)

wizard mode

Refers to special access, usually protected by a password, that allows a given user access to the core configuration functions of a program, usually a game, for purposes of experimentation. Stems from an early computerized dungeons'n'dragons game named rogue in which the system administrator or programmer was allowed a "cheat mode" in which to hack aspects of the game.

See also: [NetHack](#)

workstation

A network term that refers to a computer designed both for stand-alone work and connection with a network. Also a generic term referring to high-end UNIX PCs such as those made by Digital Equipment Corp. and Sun Microsystems.

Slang: can also refer to the operating environment or *workspace* where such a computer is located.

See also: network, UNIX, Digital Equipment Corp. (DEC), Sun Microsystems

World Wide Web (WWW or W3)

A hypertext-based, distributed information system created by researchers at CERN in Switzerland. Users may create, edit or browse hypertext documents. One of the newest Internet services, it has grown in a very short time to become the most-used service on the net. Many novice users mistakenly refer to the Web as the Internet itself, when in fact it is only one of several available services.

Most WWW documents incorporate graphics, and the limit as to what such documents may incorporate (e.g. sound, animation, etc.) is virtually unlimited. The clients and servers are freely available, and many commercial implementations are also in use.

See also: Java, Uniform Resource Locator (URL), TCP/IP protocol suite, Hypertext Transport Protocol (HTTP), World Wide Web Consortium (W3C), European Center for Particle Physics (CERN)

World Wide Web Consortium (W3C)

The World Wide Web Consortium promotes the Web by producing specifications and reference software. W3C is funded by industrial members but its products are freely available to all. The Consortium is run by MIT LCS with INRIA acting as European host, in collaboration with CERN where the web originated.

See also: [Hypertext Transport Protocol \(HTTP\)](#), [World Wide Web \(WWW/W3\)](#), [European Center for Particle Physics \(CERN\)](#)

worm

A computer program which replicates itself and is self-propagating. Worms, as opposed to viruses, are meant to spawn in network environments. Network worms were first defined by Shoch & Hupp of Xerox in ACM Communications (March 1982). The Internet worm of November 1988 is perhaps the most famous; it successfully propagated itself on over 6,000 systems across the Internet.

See also: [trojan horse](#), [virus](#)

X

X is the name for TCP/IP based network-oriented window systems. Network window systems allow a program to use displays on a different computers to access common services. The most widely-implemented window system is X11 - a component of MIT's Project Athena.

See also: [TCP/IP Protocol Suite](#)

X.25

Remote X.25: protocol connecting 32740-series controllers via packet-switched network. A data communications interface specification developed to describe how data passes into and out of public data communications networks. The CCITT and ISO approved protocol suite defines protocol layers 1 through 3.

See also: CCITT, International Organization for Standardization (ISO), OSI Reference Model, layer, packet switching

X.400

The CCITT and ISO standard for electronic mail; widely used in Europe and Canada.

See also: email, CCITT, International Organization for Standardization (ISO)

X.500

The CCITT and ISO standard for electronic directory services.

See also: [CCITT](#), [white pages](#), [Knowbot](#), [WHOIS](#)

XCON

Expert Configurer: Carnegie-Mellon/DEC developed rule-based computer-configuration program.

See also: Digital Equipment Corp. (DEC)

Xerox Network System (XNS)

A network developed by Xerox corporation. Implementations exist for both 4.3BSD derived systems, as well as the Xerox Star computers.

See also: [network](#), [Berkeley Software Distribution \(BSD\)](#)

File transfer protocols (extended topic)

XMODEM, 1k-XMODEM, YMODEM, YMODEM-G, ZMODEM, etc.

XMODEM stands for Cross(x)-MOdulation/DEModulation. It is a communications protocol for file transfer, or sending non-text data over telecommunications and network circuits. It is only one of several popular file transfer protocols in use today, and generally considered the "base" or most elementary of file transfer protocols. Among the most popular protocols based on XMODEM are:

XMODEM: File transfer protocol developed by Ward Christensen in 1978, still popular but slow compared to newer protocols. Would be seldom used if it were not the only protocol available in Windows 3.1's Terminal program. Allows transfer of one file at a time in small (128-byte) packets with little facility for automation.

XMODEM CRC: Adds CRC error-checking to XMODEM's checksum error correction.

1k-XMODEM: Adds the ability to transmit 1K packets before error-checking

YMODEM: Adds the facility to send several files at once and have the host computer tell the recipient what the file names are

YMODEM-Batch: Adds the ability to permit sending or receiving several files in succession without prompting by the remote user.

YMODEM-G: Allows packet sizes up to 4K in size and uses no error correction to achieve higher throughput.

ZMODEM: The industry standard. Built into most communications programs, added onto others as SZ/RZ, GSZ or DSZ. Offers a myriad of options for error-checking and packet size, plus allows the ability to continue transfer of an aborted file transmission from the place in the file where the error occurred (crash recovery).

There are more than a dozen other protocols in regular use today, most of them offering unique features.

See also: [protocol](#), [HS/Link](#), [download](#)

[<< Last topic](#)

XON/XOFF

A method of software flow control which uses software to determine when the next batch of data from the remote computer should be sent and when data being received should be stopped.

See also: [flow control](#), [hardware flow control](#)

Yahoo

Probably the most famous and best-loved of all the World Wide Web database search tools in the mid-1990s. Housed at Stanford University through most of its childhood and adolescence, it is a remarkably thorough and effective tool for finding specific information on the Web.

See also: World Wide Web (WWW/W3), WebCrawler, search engine

Yellow Pages (YP)

A service used by UNIX administrators to manage databases distributed across a network.

See also: UNIX

ZIP

A generic term referring to both the process of compressing files for storage or transmission using PKZIP or a similar form of archiving software, and to the programs designed to create these archives. PKZIP, created by PKWARE, Inc. is the industry standard and was developed on the IBM-PC. Info-Zip is a free, PKZIP compatible library of code used in a wide range of programs to unpack PKZIP archives.

See also: [GZIP](#), [PKZIP](#), [data compression](#)

zone

A logical group of network devices

See also: [Appletalk](#)

Select a lexicon

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Related lexicons are cross-referenced.
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Instructions

Please read this disclaimer first

General usage instructions

Copying and pasting definitions

Terms not found in the lexicons

General usage instructions

This lexicon is offered as an aid to understanding computing and Internet terms. Its use is very simple.

1. Either select a lexicon to browse by clicking one of the bars on the **Contents** menu or by selecting an item from the **Lexicon** drop-down menu. (There is also a right-click mouse menu available for each of the main indices of the lexicon.)
2. Click the first letter of the term you are searching for on the alphabet bar. Unfortunately, the lexicon is not equipped to handle "fuzzy" searches unless you have special software designed to allow these searches with Windows help tools, so you'll have to be accurate about at least the first letter.
3. Scroll down the screen until you come to the term you are looking for.
4. Click on the term and a box with its definition will pop up.
5. Where appropriate, related terms will be available to browse by clicking the highlighted words in the pop-up box.
6. If you do not find the term you are looking for, either try another lexicon (the term may be included in a different section) or click the **Search** button to perform a keyword search. If you need help performing the keyword search, select the **Advanced tips** item from the **Lexicon** menu for walk-through help with this very powerful feature. (Available in the registered version only.)

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Copying and pasting definitions

Windows 3.1/Windows for Workgroups and Windows95:

Windows 3.1/Windows for Workgroups will not allow you to copy information from popup help topics. Unfortunately, all but a handful of the definitions in this lexicon are popups. There is a rather clumsy workaround for this, though. Here are the steps:

1. Click the term or acronym to pop up a definition
2. Click again to close the pop-up window
3. Click the **History** button to display a list of the topics you have browsed.
4. Select the term or acronym you wish to copy to the clipboard. The definition will then be displayed in a normal help window
5. You can now click the blue text at the top of the window to pop up the copy-to-clipboard dialog, and copy-and-paste can proceed normally.

Please remember to honor the authors' copyrights when inserting these definitions word-for-word into other documents.

Expert mode (Windows 95 only)

If you have Windows 95, the new **Windows Help** will allow you to copy definitions from pop-up windows which are displayed when you click on a term or acronym and still have the popup window open. This is something you can't ordinarily do, and it only works in a "secondary help window".

This feature only works with Windows 95. This feature has resulted in confusion with some novice users so it is offered as an "expert tool". The confusion results from the loss of menu selections when a second window is opened from the same instance of a helpfile.

How expert mode works

1. To activate this feature, select **W95 Copy Mode** from the **Lexicons** menu. You'll you're in this mode when your chosen glossary index has no buttons or menu bar.
2. Copy the text to the clipboard using the **Ctrl+C** keys. (Press and hold **Ctrl** while the popup window is open and tap **C**.)
3. Paste the text into a document using the usual methods.

NOTE: You cannot copy Windows Help bitmaps (graphics) using this method. All that can be copied is the text.

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For terms not found in the lexicon

This reference is quite rich, but by no means complete. It was impossible to include the thousands of computer-related terms that could have been added here without making the tool too difficult to manage as a Windows helpfile. Therefore, it's likely that many terms you expect to find in this lexicon simply won't be here.

There are two possible approaches you can take with an unfound term. The first is to perform a keyword search of the helpfile using the **Search** function built into Windows Help. There are several thousand terms listed, but hundreds more were not included in the main indexes and are searchable as keywords. Follow the instructions in the **Copying and pasting** topic to do a more thorough search.

If you have Windows 95, you can do a full search of every word in the help tool, including words which were never given definitions. It is often possible to browse topics containing the word you are looking for and figure out the meaning of the word by the context in which it is used.

The final approach is to try a World Wide Web search of one of the many dictionaries and acronym lists available online using the Web page supplied with this lexicon. The search engine will access several databases (not all of them at once, unfortunately) and with any luck one of them will contain the term you are searching for. Unfortunately you will need to be online in order to use this resource.

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Unavailable term or option

This option or term is not included in this release. (There are fewer than 20 such terms.)
Consult the registered version for more information.

Unavailable term or option

This option or term is not included in this release. (There are fewer than 20 such terms.)
Consult the registered version for more information.

USENET, email and chat acronyms

This is a (thankfully) brief list of 100 common and less-common abbreviations used in email messages, chat and newsgroup postings as a means of speeding up communication. Parental guidance is suggested.

AFAIK	As Far As I know
AFJ	April Fool's Joke
AFK	Away From the Keyboard
ATYS	Anything You Say
BBIAB	Be Back In A Bit
BBFN	Bye Bye For Now
BBL	Be Back Later
BCNU	Be Seein' You
BFD	Big F***** Deal
BFI	Brute Force and Ignorance
BG	BackGround
BRB	Be Right Back
BTW	By The Way
CI\$	<u>Compuserve Information Service</u>
CU	See You
CUL,CYL	See You Later
DIIK	Damned If I Know
FDROTFL	Falling Down Rolling On The Floor Laughing
FIIK	(see DIIK)
FITB	Fill In The Blanks
FOAD	F*** Off And Die
FOAF	Friend Of A Friend
FOD	Finger Of Death
FOTCL	Falling Off The Chair Laughing
FROPPED	F***ing dROPPED (as in "dropped carrier" or kicked off the phone line or network)
F2F	Face-To-Face
FWIW	For What It's Worth
FYATHYRIO	F*** You And The Horse You Rode In On
FYBITS	F*** You, Buddy, I'm The <u>Sysop</u>
FYA	For Your Amusement
FYI	For Your Information
G	Grin (usally typed <g>)

GA	Go Ahead
GD&R	Grinning, Ducking & Running (usually left at the end of a digging message)
GIGO	Garbage In, Garbage Out
GIWIST	Gee I Wish I'd Said That
GROK	As in "I GROK", means thorough understanding. From R.A. Heinlein's "Stranger in a Strange Land"
HHOJ	Ha Ha Only Joking
HHOK	Ha Ha Only Kidding
HHOS	Ha Ha Only Serious
HLAYK	Here's Looking At You Kid (a parting)
ICOCBW	I Could Of Course Be Wrong
IMHO	In My Humble Opinion
IMNSHO	In My Not So Humble Opinion
IOW	In Other Words
IWBNI	It Would Be Nice If
JAM	Just A Minute
JSNM	Just Stark Naked Magic
KISS	Keep It Simple, Stupid
L8R	LATeR
LAB&TYD	Life's A Bitch & Then You Die.
LOL	Laughing Out Loud
LTLYB	Love To Love You Baby
MEGO	My Eyes Glaze Over
MORF	Male OR Female
MYOB	Mind Your Own Business
NBD	No Big Deal
NHOH	Never Heard Of Him/Her
NP	No Problem
NTYMI	Now That You Mention It
OB, OBJ	OBligatory Joke
OIC	Oh, I See
O	Over (to you)
OO	Over and Out
OTOH	On The Other Hand
OTT	Over The Top
PFM	Pure F***ing Magic
PITA	Pain In The Ass
PM	Preventive Maintenance

PMJI	Pardon My Jumping In
POM	Phase Of the Moon
POV	Point Of View; also Persistence of Vision a popular freeware raytracing graphics package.
RAD	Raw, Unadulterated Dumbness
RE	Re-hello (hello again) or re-hi
RL	Real Life
ROTFL	Rolling On The Floor Laughing
ROTFLMAO	Rolling On The Floor Laughing My Ass Off
ROTM	Right On The Money
SIG	<u>Special Interest Group</u>
SO	Significant Other
SUP	What's Up?
SWEIN	So What Else Is New?
TAFN	That's All For Now
TANJ	There Ain't No Justice
TANSTAAFL	There Ain't No Such Thing As A Free Lunch; from Robert Heinlein's "The Moon is a Harsh Mistress"
TIA	Thanks In Advance (also aTdHvAaNnKcSe or advTHANKSance)
TPTB	The Powers That Be
TTBOMK	To The Best Of My Knowledge
TTFN	Ta-Ta For Now
TTUL, TTYL	Talk To You Later
TTYS	Talk To You Soon
TNX 1.0E6	ThaNKS a million (also TNX1M)
UOK?	Are You OK?
WRT	With Respect To
WTH	What The hell
WTF	What The F***
YA	Yet Another
YAFIYGI	You Asked For It, You Got It

250 Emoticons

It started with the obvious...someone figured out how to make a smiley face on its side using typewriter characters to indicate that the preceding statement was not meant seriously:

: -)

Then followed the inevitable "bad day", resulting in a

: - (

...and pretty soon the idea caught on. Now almost everyone is into the act...or was until they became royally sick of the whole notion of emoticons.

Smileys are viewed by many veteran Internet users as one of the most overused and valueless forms of communication on the net. Those who lack the verbal facility of these so-called experts find them indispensable as a means of self-expression.

It's amazing how much you can tell about a person by the smileys or "emoticons" they use in chat, newsgroup posts and email, and here's the proof. Parental guidance is suggested.

WARNING: This list is not to be consumed in one sitting without permission from accredited counselling or medical professionals; excessive exposure to emoticons may induce vomiting or childish behavior.

: - {)	User has a moustache
' -)	User is winking at you
; -)	Wink...or bad plastic surgery?
: - {	User is a vampire
: - E	User is a bucktoothed vampire
| - {	Charlie Brownicon ("Good Grief!")
: - }	Love or just good scotch?
8 - O	User is shocked
: - ,	User is perplexed
: - f	User is both bucktoothed and perplexed
< : - 0	Eeek!
: - 1	User smirks
: - Q	User is a smoker
: - ?	User smokes a pipe
: - "	User has pursed lips
: - 9	User is licking his/her lips
C = : -)	User is a chef
{ _ } 0	Coffee calls....
: - r	Bleaggh...need to brew a fresh pot
: ~)	User has broken nose
| ~ (	User has broken nose and is still in pain
: - v	User is speaking out of the side of their mouth
: - V	User is shouting at person using the next terminal

B-D	User plays in rock band
B-D} } }	User plays with ZZ Top
\ :)	User is Ronald Reagan...or Nancy giving dictation
7 :)	User is a Ronald Reagan imitator
: -w	User speaks with forked tongue
: -W	User speaks with forked tongue and insists you listen
: <)	User is from an Ivy League School
< I == I)	User is talking on their car phone
> y == X)	User talking on car phone just drove into a tree
8 ^ { }	User is prying jaws open with vise to display amazement
+ - : -)	User is the Pope or holds some other religious office
` : -)	User shaved one of his eyebrows off this morning
O : -)	User is an angel (at heart, at least)
: - S	User just made an incoherent statement
* < : -)	User is wearing a Santa Claus Hat
: - o	Uh oh...
(8 - o	...it's Mr. Bill!
* : o)	User is a bozo
3 :]	Pet smiley
3 : [	Mean pet smiley
d 8 =	Beaver wearing goggles and a hard hat
E - : -)	User is a HAM radio operator
% - 6	User is braindead
[: -)	User is wearing a portable stereo
(: I	User is an egghead
8 -]	User is stoned
* L *	User is totalled
: - (*)	User on verge of vomiting at the excess of smileys
< : - I	User is a dunce
+ < . ' v	User is a knight who is busy with something away from the terminal
K : P	User wears a propeller beanie
: -) '	User drools
@ : -)	User wears a turban
	User wishes to remain anonymous
X - (	User just died
X == [	User just died with their boots on
X -)	User just died happy
] X ### [	User just died in bed
] X == + = [	User (m or f) just died <i>very</i> happy
C = } > ; * { O)	Classic overkill smiley: user is a drunk, sly chef with moustache, toupee and double chin in and is caught in an updraft

: -x	User sucks lemons
: ->	User is just some happy square
: -C	Stock drops...so does the jaw
: -<	User is forlorn
[:]	User is a robot
>>-O->	User had a bad day at the Little Bighorn
: V	User is a woodpecker
8 : -)	User is a little girl
: -) -8	User is a big girl
| )	User is a salamander
@ | @	User has been surfing too long
*-<: -{ { {	User is Santa
} : -} { { W--	User is Satan...or dyslexic and attempting to be Santa
= | : -) =	User is Abe Lincoln or a <i>really</i> cheap imitation Santa
o-<: -{ { {	User is a cheap imitation Santa
{ : -)	User wears a toupee
} : - (	Toupee in an updraft
* |	User loves a sunset
: - ,	Smirk
: - \ 8o	User after cold shower
: - \	User is Popeye
: - ?	User licks their lips
: ^ T	User's lips are zipped
: ^ P	User is sticking tongue out at you
> : ^ (	User is an Amazonian headhunter
7 :)	User is a Ronald Reagan imitator
> w	User is thumbing their nose at you
(- _ -)	User gives you a secret smile
| - <>	Kissy-face
@ -)	User is a happy cyclops
@ - ()	User is a <i>hungry</i> cyclops
C - |	User is a cyclops with a squint
Q -)	Cyclops winking
< : > ==	User is a turkey
MSN	User is trying not to be, but is still a turkey
: = |	User is a baboon
8 = []	User is a lemur
% - < I >	User is happy drunk
* - }	User is <i>beyond</i> drunk
%	User has had a cycling accident

: -O>-o	User is an American tourist (oh joy)
: 'O	User is pretending to be Bob Hope
: Q)	User is John Q. Public
>-)	User is a sly one
>- (	Not a happy camper
(- : : - (	User is two-faced
: <=	User is a walrus
: ~|	User is punchy
- : -)	User has a mohawk cut
{ : \ /	User is talking like a duck
: - \$	User insists you put your money where your mouth is
: - :	User is French (jou notice ze accent?)
: - &	Tongue-tied
: : -)	User is four-eyed
i -)	User is a private investigator
. -)	User is keeping an eye out
. -)	"I told you you'd put your eye out with that!"
& -)	User needs opera glasses to see terminal screen
= : -)	User is a hosehead
8 -)	The Madman Strikes Again
# -)	User is auditioning for part of Lieutenant Geordie LaForge
: - |	User says: "Have a day"
* : *	User is a little fuzzy
% - {	User has been at the terminal too long
% ~v	User needs medical attention
# : -)	User is Cosmo Frasier
^) :	User has perceptual difficulties or is a post-nuclear baby
O | - 1	User has been hit by falling rock
: - (=)	User has big teeth
(:) -)	User is a scuba diver
~ =	User lights a candle...the flame is on
~ =====	Better call the bomb squad
- =	User douses a candle...this flame is over
P -)	User is a pirate
~ ~ \ 8 - O	User needs to fix frayed cord on monitor
~ ~ : - (	User is a hothead
| : - |	User needs to loosen up
d : - o	User doffs their hat to you
: 8)	User is a pig
8 + ()	User is either Tina Turner or a British Lord

*~8-}	User has a lit fuse coming out of their head
B-{=	User is either a vampire, a beaver or just some dork
@-}	User is a cyborg on a good day
: (\	User smokes...
!	and hates it
B (\	User smokes...
!	and thinks it makes them look cool
:-6	User finds your remark sour
:-{ }	User wears heavy lipstick
: ^ (	User's nose is out of joint
:- []	User breaks out the Jaws of Death
8-*	User just ate a hot pepper
R-)	User has broken glasses
S-)	User has crooked glasses
<{: -) [	User has been stuffed into a rocket
= [{: - (]	User has been stuffed into a bottle
= [{: -)]	User has been stuffed into a Scotch bottle
)	Cheshire smiley
>-o ^^^^:	User zipped fly too fast
p-)	User wears a monocle
[:]	User is being crushed by heavy machinery
(-E:	User wears bifocals
L-)	User has a funky hairdo
T-)	User wears weird glasses
H-)	User is cross-eyed
(: -)	User never computes without protective headgear
oo	User's headlights are on
O>-< =	Women only please...
o>8< =	Interesting women only please...
o[#|==	Men only please...
o[#+==	Oh, puh-lease...
}: - (	User is bull-headed
;-)	Winkie
o{=8~~	User farts in your general direction
(: >-<	User thought you were a cop
| - (	User is having another late night at the terminal
:-{#}	User wears braces
@=	User digs nuclear explosions
(: -#	User wishes they hadn't said that
: - `	User chews tobacco

: -) - :	User has a theatrical bent
d: -)	User is a trucker (or a baseball fan
q: -)	User is a rapper, a catcher, or doesn't know how to put on a ball cap
(: -\$	User had bad pizza for dinner
(: +)	User wants you to know they have an enormous...nose
(: =)	User has two noses
(\ /)	User has extremely large ears
**	User enjoys winter sports
(: <)	User is a blabbermouth
=)	User is psychotically happy
| | *	Handshake accepted
& - |	User is very sad
: -) - 8	User is sexually aroused (m)
! - (%	User attempted to display arousal to wrong person
: - (O)	User is in your face
= | : -)	User wears a top hat
& : -)	User has curly hair
@ : -)	User has wavy hair
* : **	User is a bit blurry
: - 8 (	User is looking down on you
. . . --- . . .	Emergency
# \$ % ^ @ #	Encrypted emoticon;
(: - | K-	Formal chat requested
l =	Chat requested regarding housing in Arizona
B -)	User is Batman
-> -	User sells airline tickets
> ; ->	User is giving you the evil eye
< | - (	User is Chinese and doesn't like these kind of jokes
= 0 == -	User is Mexican or a stylish woman on a railroad track
= t == -	User is Mexican or a stylish woman who has been run over by train
M: -)	User salutes you
<: -) << |	User is an astronaut
(: - . . .	User's heart is broken
~M`'~	User is a very intelligent camel
: -) !!!	User is Sam Kinison
> | ->	User is an elder Chinese national...approach with respect
: - (%)	User has tonsillitis or a fly in their throat
<<<< (: -)	User sells hats
{O--<	User is a dead fish...or thinks you are
@>--->-----	User offers you a rose

(:- {~	User has moustache and drools
{ }	User makes no comment
O-S-<	User is in a hurry
O-Z-<	User is awkward and in a hurry
O-&-<	User is getting impatient
- |==>-	User is a user
XXXXXXXXXXXXX	User has copy-protected their emoticon
==: [OO']>:==	User feels like they're being railroaded
8)	User is a frog
pp#	User is a cow that wants you to think they are a frog
O-G-<	User thinks they should come first
%\v	User is a Picasso fan
[]	User gives you a hug
| |	Chat requested regarding four-wheel drive vehicles
@O=E<=	User wears a skirt and a turtleneck sweater
6\ /)	User is an elephant
<u>Q~`</u>	User is a cat
- (	User ought to know enough to wear safety glasses around lasers
: - ' |	User has a cold
; ^ ?	User got their lights punched out
C : #	User is a football player
((-)	User needs a haircut
: - a	User can lick their own nose (see "dork")
% * @ : - (	User is hung over
- = # : -)	User is a wizard
! - |	User is a Cylon
i - = < * * * * *	User has flamethrower
i - = < * * * * * X - (	User has flamethrower and uses it
: - "	User smokes two cigarettes at once
Q : -)	User is a recent graduate
(\$ ^ } > = = [User has successfully sued us for copyright violation regarding unlicensed use of a smiley

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against people who enjoy frivolous lawsuits.

Acknowledgements and credits

Cub Lea and Dynamic Living Media made extensive use of several popular and commonly-available resources in the creation of this package.

The most critical for the Internet lexicon was the Internet Users' Glossary (RFC 1392) which was the source for most of the networking terms used here. Information regarding this document and the sources used in its creation are listed in the acknowledgements topic highlighted above.

The PC Glossary by Disston Ridge, Inc. was also consulted often as a source for essential terms and cross-references for the general computing lexicon. We also thank Disston Ridge for setting a standard of quality to shoot for, and for providing the inspiration for this work. We will no longer think of Disston simply as a manufacturer of saws.

An uncredited list of acronyms which circulated on the Internet was source for about 250 acronyms in all categories.

The Jargon File version 3.0.0, our favorite source for information on more arcane subjects and definitions, was consulted and quoted frequently; we can't match the style and wit used here and strongly recommend this document to all our readers.

GLOSSARY.HLP, the glossary enclosed with Microsoft Windows 3.1 and produced by Microsoft Corp., was also consulted frequently. It was used as a skeleton document and a constant reminder of how *not* to deal with elementary terms critical to novice users; regrettably, early versions fell into the same trap and some remnants of this problem still remain in the product.

Several friends on Internet Relay Chat, (Graham Blake of Denman Island, BC and Damascena Korwen of San Francisco, CA in particular), were - knowingly or not - also instrumental as inspirations for this project.

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Internet Users' Glossary

Network Working Group/G. Malkin/Request for Comments: 1392/Xylogics, Inc./FYI: 18/T.
LaQuey Parker/UTexas/Editors/January 1993

Status of this Memo

This memo provides information for the Internet community. It does not specify an Internet standard. Distribution of this memo is unlimited.

Abstract

There are many networking glossaries in existence. This glossary concentrates on terms which are specific to the Internet. Naturally, there are entries for some basic terms and acronyms because other entries refer to them.

Acknowledgements

This document is the work of the User Glossary Working Group of the User Services Area of the Internet Engineering Task Force (IETF). Special thanks go to Jon Postel for his definitive definition of "datagram".

References

BIG-LAN "BIG-LAN Frequently Asked Questions Memo", BIG-LAN DIGEST V4:18, February 14, 1992.

COMER Comer, D., "Internetworking with TCP/IP: Principles, Protocols and Architecture", Prentice Hall, Englewood Cliffs, NJ, 1991.

FYI4 Malkin, G., and A. Marine, "FYI on Questions and Answers: Answers to Commonly asked "New Internet User" Questions", FYI 4, RFC 1325, Xylogics, SRI, May 1992.

JARGON "THE JARGON FILE", Version 3.0.0, July 1993.

HPCC "Grand Challenges 1993: High Performance Computing and Communications", Committee on Physical, Mathematical and Engineering Sciences of the Federal Coordinating Council for Science, Engineering and Technology.

MALAMUD Malamud, C., "Analyzing Sun Networks", Van Nostrand Reinhold, New York, NY, 1992.

NNSC "NNSC's Hypercard Tour of the Internet".

LAQUEY LaQuey, T. (with J. Ryer), "The Internet Companion: A Beginner's Guide to Global Networking", Addison-Wesley, Reading, MA, 1992.

NWNET Kochmer, J., and NorthWestNet, "The Internet Passport: NorthWestNets Guide to Our World Online", NorthWestNet, Bellevue, WA, 1992.

RFC1208 Jacobsen, O., and D. Lynch, "A Glossary of Networking Terms", RFC 1208, Interop, Inc., March 1991.

STD1 Postel, J., "IAB Official Protocol Standards", STD 1, RFC 1360, Internet Architecture Board, September 1992.

STD2 Reynolds, J., and J. Postel, "Assigned Numbers", STD 2, RFC 1340, USC/Information

Sciences Institute, July 1992.

TAN Tanenbaum, A., "Computer Networks; 2nd ed.", Prentice Hall, Englewood Cliffs, NJ, 1989.

ZEN Kehoe, B., "Zen and the Art of the Internet", February 1992.

Security Considerations

While security is not explicitly discussed in this document, some of the glossary's entries are security related. See the entries for Access Control List (ACL), authentication, Computer Emergency Response Team (CERT), cracker, Data Encryption Key (DEK), Data Encryption Standard (DES), encryption, Kerberos, Privacy Enhanced Mail (PEM), Trojan Horse, virus, and worm.

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Top Level Domains

Introduction

Institutional domains

COM	US/Canadian Commercial
EDU	US Educational
GOV	US Government
INT	International
MIL	US Military
NET	Network
ORG	Non-Profit Organization
ARPA	Old style <u>Arpanet</u>
NATO	NATO field

Countries, states and territories:

AD	Andorra
AE	United Arab Emirates
AF	Afghanistan
AG	Antigua and Barbuda
AI	Anguilla
AL	Albania
AM	Armenia
AN	Netherlands Antilles
AO	Angola
AQ	Antarctica
AR	Argentina
AS	American Samoa
AT	Austria
AU	Australia
AW	Aruba
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BB	Barbados
BD	Bangladesh
BE	Belgium
BF	Burkina Faso
BG	Bulgaria

BH Bahrain
BI Burundi
BJ Benin
BM Bermuda
BN Brunei Darussalam
BO Bolivia
BR Brazil
BS Bahamas
BT Bhutan
BV Bouvet Island
BW Botswana
BY Belarus
BZ Belize
CA Canada
CC Cocos (Keeling) Islands
CF Central African Republic
CG Congo
CH Switzerland
CI Cote D'Ivoire (Ivory Coast)
CK Cook Islands
CL Chile
CM Cameroon
CN China
CO Colombia
CR Costa Rica
CS Czechoslovakia (former)
CU Cuba
CV Cape Verde
CX Christmas Island
CY Cyprus
CZ Czech Republic
DE Germany
DJ Djibouti
DK Denmark
DM Dominica
DO Dominican Republic
DZ Algeria
EC Ecuador
EE Estonia

EG	Egypt
EH	Western Sahara
ER	Eritrea
ES	Spain
ET	Ethiopia
FI	Finland
FJ	Fiji
FK	Falkland Islands (Malvinas)
FM	Micronesia
FO	Faroe Islands
FR	France
FX	France, Metropolitan
GA	Gabon
GB	Great Britain (UK)
GD	Grenada
GE	Georgia
GF	French Guiana
GH	Ghana
GI	Gibraltar
GL	Greenland
GM	Gambia
GN	Guinea
GP	Guadeloupe
GQ	Equatorial Guinea
GR	Greece
GS	S. Georgia and S. Sandwich Isls.
GT	Guatemala
GU	Guam
GW	Guinea-Bissau
GY	Guyana
HK	Hong Kong
HM	Heard and McDonald Islands
HN	Honduras
HR	Croatia (Hrvatska)
HT	Haiti
HU	Hungary
ID	Indonesia
IE	Ireland
IL	Israel

IN	India
IO	British Indian Ocean Territory
IQ	Iraq
IR	Iran
IS	Iceland
IT	Italy
JM	Jamaica
JO	Jordan
JP	Japan
KE	Kenya
KG	Kyrgyzstan
KH	Cambodia
KI	Kiribati
KM	Comoros
KN	Saint Kitts and Nevis
KP	Korea (North)
KR	Korea (South)
KW	Kuwait
KY	Cayman Islands
KZ	Kazakhstan
LA	Laos
LB	Lebanon
LC	Saint Lucia
LI	Liechtenstein
LK	Sri Lanka
LR	Liberia
LS	Lesotho
LT	Lithuania
LU	Luxembourg
LV	Latvia
LY	Libya
MA	Morocco
MC	Monaco
MD	Moldova
MG	Madagascar
MH	Marshall Islands
MK	Macedonia
ML	Mali
MM	Myanmar

MN	Mongolia
MO	Macau
MP	Northern Mariana Islands
MQ	Martinique
MR	Mauritania
MS	Montserrat
MT	Malta
MU	Mauritius
MV	Maldives
MW	Malawi
MX	Mexico
MY	Malaysia
MZ	Mozambique
NA	Namibia
NC	New Caledonia
NE	Niger
NF	Norfolk Island
NG	Nigeria
NI	Nicaragua
NL	Netherlands
NO	Norway
NP	Nepal
NR	Nauru
NT	Neutral Zone
NU	Niue
NZ	New Zealand (Aotearoa)
OM	Oman
PA	Panama
PE	Peru
PF	French Polynesia
PG	Papua New Guinea
PH	Philippines
PK	Pakistan
PL	Poland
PM	St. Pierre and Miquelon
PN	Pitcairn
PR	Puerto Rico
PT	Portugal
PW	Palau

PY	Paraguay
QA	Qatar
RE	Reunion
RO	Romania
RU	Russian Federation
RW	Rwanda
SA	Saudi Arabia
Sb	Solomon Islands
SC	Seychelles
SD	Sudan
SE	Sweden
SG	Singapore
SH	St. Helena
SI	Slovenia
SJ	Svalbard and Jan Mayen Islands
SK	Slovak Republic
SL	Sierra Leone
SM	San Marino
SN	Senegal
SO	Somalia
SR	Suriname
ST	Sao Tome and Principe
SU	USSR (former)
SV	El Salvador
SY	Syria
SZ	Swaziland
TC	Turks and Caicos Islands
TD	Chad
TF	French Southern Territories
TG	Togo
TH	Thailand
TJ	Tajikistan
TK	Tokelau
TM	Turkmenistan
TN	Tunisia
TO	Tonga
TP	East Timor
TR	Turkey
TT	Trinidad and Tobago

TV	Tuvalu
TW	Taiwan
TZ	Tanzania
UA	Ukraine
UG	Uganda
UK	United Kingdom
UM	US Minor Outlying Islands
US	United States
UY	Uruguay
UZ	Uzbekistan
VA	Vatican City State (Holy See)
VC	Saint Vincent and the Grenadines
VE	Venezuela
VG	Virgin Islands (British)
VI	Virgin Islands (U.S.)
VN	Viet Nam
VU	Vanuatu
WF	Wallis and Futuna Islands
WS	Samoa
YE	Yemen
YT	Mayotte
YU	Yugoslavia
ZA	South Africa
ZM	Zambia
ZR	Zaire
ZW	Zimbabwe

What's a top level domain?

Ever wonder where that particular post or email came from...the one with the weird letters at the end of the user's email address? Here's a list of top-level domains to consult for the answer

Top level domains are the domain names assigned by InterNIC to various countries and types of organizations. At present, the list is fairly short, but as the Internet is expanding, InterNIC is preparing to add a whole slew of new top-level domains in 1995-96. Future versions of *PC/Internet Lexicon* will try to keep up with the flow of new top-level domains, but in the meantime, you can keep abreast of the latest additions by checking with Yahoo at this URL for sites carrying the most recent list. (Enter this into your browser all on one line with no spaces or carriage returns; this line is broken into two parts to fit properly in the help window.)

**[http://www.yahoo.com/Computers_and_Internet/Internet/
Domain_Registration/Top_Level_Internet_Domains/](http://www.yahoo.com/Computers_and_Internet/Internet/Domain_Registration/Top_Level_Internet_Domains/)**

