

# Glossary of Internet Terms

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## **ADN** -- (Advanced Digital Network)

Usually refers to a 56Kbps *leased-line*.

See also: *Leased Line*

## **ADSL** -- (Asymmetric Digital Subscriber Line)

A *DSL* line where the upload speed is different from the download speed. Usually the download speed is much greater.

See also: *Download, DSL, SDSL, Upload*

## **Anonymous FTP**

See also: *FTP*

## **Applet**

A small *Java* program that can be embedded in an *HTML* page. Applets differ from full-fledged *Java* applications in that they are not allowed to access certain resources on the local computer, such as files and serial devices (modems, printers, etc.), and are prohibited from communicating with most other computers across a network. The common rule is that an applet can only make an Internet connection to the computer from which the applet was sent.

See also: *HTML, Java*

## **Application Server**

*Server* software that manages one or more other pieces of software in a way that makes the managed software available over a network, usually to a *Web* server. By having a piece of software manage other software packages it is possible to use resources like memory and database access more efficiently than if each of the managed packages responded directly to requests.

See also: *Server*

## **Archie**

A tool (software) for finding files stored on *anonymous FTP* sites. You need to know the exact file name or a substring of it. By 1999 *Archie* had been almost completely replaced by web-based search engines.

Back when *FTP* was the main way people moved files over the *Internet* *Archie* was quite popular.

See also: *FTP*

**ARPANet** -- (Advanced Research Projects Agency Network)

The precursor to the *Internet*. Developed in the late 60's and early 70's by the US Department of Defense as an experiment in wide-area-networking to connect together computers that were each running different system so that people at one location could use computing resources from another location.

See also: *Internet (Upper case I), Network, WAN*

**ASCII** -- (American Standard Code for Information Interchange)

This is the de facto world-wide standard for the code numbers used by computers to represent all the upper and lower-case Latin letters, numbers, punctuation, etc. There are 128 standard ASCII codes each of which can be represented by a 7 digit binary number: 0000000 through 1111111.

**Atom**

An evolving protocol for syndication and sharing of content.

Atom is being developed as a successor to and improvement over *RSS* and is more complex than *RSS* while offering support for additional features such digital signatures, geographic location of author, possibly security/encryption, licensing, etc.

Like *RSS*, Atom is an *XML*-based specification.

See also: *RSS, XML*

**Backbone**

A high-speed line or series of connections that forms a major pathway within a network. The term is relative as a backbone in a small *network* will likely be much smaller than many non-backbone lines in a large network.

See also: *Network*

**Bandwidth**

How much stuff you can send through a connection. Usually measured in bits-per-second. A full page of English text is about 16,000 bits. A fast modem can move about 57,000 bits in one second. Full-motion full-screen video would require roughly 10,000,000 bits-per-second, depending on compression.

See also: *Bit, bps, T-1*

**Baud**

In common usage the baud rate of a *modem* is how many *bits* it can send or receive per second. Technically, baud is the number of times per second that the carrier signal shifts value - for example a 1200 bit-per-second modem actually runs at 300 baud, but it moves 4 bits per baud (4 x 300= 1200 bits per second).

See also: *Bit, Modem*

**BBS** -- (Bulletin Board System--BBS)

A computerized meeting and announcement system that allows people to carry on discussions, upload and download files, and make announcements without the people being connected to the computer at the same time. In the early 1990's there were many thousands (millions?) of BBS's around the world, most are very small, running on a single IBM clone PC with 1 or 2 phone lines. Some are very large and the line between a BBS and a system like AOL gets crossed at some point, but it is not clearly drawn.

**Binary**

Information consisting entirely of ones and zeros. Also, commonly used to refer to files that are not simply text files, e.g. images.

See also: *MIME, UUENCODE*

**Binhex** -- (BINary HEXadecimal)

A method for converting non-text files (non-ASCII) into *ASCII*. This is needed because Internet e-mail can only handle *ASCII*.

See also: *ASCII, MIME, UUENCODE*

**Bit** -- (Binary DigIT)

A single digit number in base-2, in other words, either a 1 or a zero. The smallest unit of computerized data. *Bandwidth* is usually measured in bits-per-second.

See also: *Bandwidth, Bit, bps, Byte, Kilobyte, Megabyte*

**BITNET** -- (Because It's Time NETwork (or Because It's There NETwork))

A *network* of educational sites separate from the Internet, but e-mail is freely exchanged between *BITNET* and the Internet. *Listservs*®, a popular form of e-mail discussion groups, originated on *BITNET*. At its peak (the late 1980's and early 1990's) *BITNET* machines were usually mainframes, often running IBM's *MVS* operating system. *BITNET* is probably the only international network that is shrinking.

See also: *Internet (Upper case I), Listserv ®, Network*

**Blog** -- (WEBLOG)

A blog is basically a journal that is available on the *web*. The activity of updating a blog is "blogging" and someone who keeps a blog is a "blogger." Blogs are typically updated daily using software that allows people with little or no technical background to update and maintain the blog.

Postings on a blog are almost always arranged in chronological order with the most recent additions featured most prominently.

**bps** -- (Bits-Per-Second)

A measurement of how fast data is moved from one place to another. A 56K *modem* can move about 57,000 bits per second.

See also: *Bandwidth, Bit*

**Browser**

A *Client* program (software) that is used to look at various kinds of Internet resources.

See also: *Client, Server, URL, WWW*

**BTW** -- (By The Way)

Shorthand appended to a comment written in an online forum.

See also: *IMHO*

**Byte**

A set of Bits that represent a single character. Usually there are 8 Bits in a Byte, sometimes more, depending on how the measurement is being made.

See also: *Bit*

**CATP** -- (Caffeine Access Transport Protocol)

Common method of moving caffeine across *Wide Area Networks* such as the *Internet*

CATP was first used at the Binary Cafe in Cybertown and quickly spread world-wide.

There are reported problems with short-circuits and rust and decaffeinated beverages were not supported until version 1.5.3

See also: *Internet (Upper case I), IRC, WAN*

**Certificate Authority**

An issuer of *Security Certificates* used in *SSL* connections.

See also: *SSL*

**CGI** -- (Common Gateway Interface)

A set of rules that describe how a *Web Server* communicates with another piece of software on the same machine, and how the other piece of software (the? CGI program?) talks to the web server. Any piece of software can be a CGI program if it handles input and output according to the CGI standard.

See also: *Server, WWW*

## **cgi-bin**

The most common name of a directory on a web server in which *CGI* programs are stored.

See also: *CGI*

## **Client**

A software program that is used to contact and obtain data from a *Server* software program on another computer, often across a great distance. Each *Client* program is designed to work with one or more specific kinds of *Server* programs, and each *Server* requires a specific kind of *Client*. A *Web Browser* is a specific kind of *Client*.

See also: *Browser, Client, Server*

## **co-location**

Most often used to refer to having a *server* that belongs to one person or group physically located on an *Internet*-connected *network* that belongs to another person or group. Usually this is done because the server owner wants their machine to be on a high-speed Internet connection and/or they do not want the security risks of having the server on their own network.

See also: *Internet (Upper case I), Network, Server*

## **Cookie**

The most common meaning of "Cookie" on the Internet refers to a piece of information sent by a *Web Server* to a *Web Browser* that the Browser software is expected to save and to send back to the Server whenever the browser makes additional requests from the Server.

Depending on the type of Cookie used, and the Browsers' settings, the Browser may accept or not accept the Cookie, and may save the Cookie for either a short time or a long time.

Cookies might contain information such as login or registration information, online "shopping cart" information, user preferences, etc.

When a Server receives a request from a Browser that includes a Cookie, the Server is able to use the information stored in the Cookie. For example, the Server might customize what is sent back to the user, or keep a log of particular users' requests.

Cookies are usually set to expire after a predetermined amount of time and are usually saved in memory until the Browser software is closed down, at which time they may be saved to disk if their "expire time" has not been reached.

Cookies do not read your hard drive and send your life story to the CIA, but they can be used to gather more information about a user than would be possible without them.

See also: *Browser, Server*

### **CSS -- (Cascading Style Sheet)**

A standard for specifying the appearance of text and other elements. CSS was developed for use with *HTML* in *Web pages* but is also used in other situations, notably in applications built using *XPFE*. CSS is typically used to provide a single "library" of styles that are used over and over throughout a large number of related documents, as in a web site. A CSS file might specify that all numbered lists are to appear in *italics*. By changing that single specification the look of a large number of documents can be easily changed.

See also: *HTML, Web page, XPFE*

### **Cyberpunk**

Cyberpunk was originally a cultural sub-genre of science fiction taking place in a not-so-distant, dystopian, over-industrialized society. The term grew out of the work of William Gibson and Bruce Sterling and has evolved into a cultural label encompassing many different kinds of human, machine, and punk attitudes. It includes clothing and lifestyle choices as well.

See also: *Cyberspace*

### **Cyberspace**

Term originated by author William Gibson in his novel *Neuromancer* the word Cyberspace is currently used to describe the whole range of information resources available through computer networks.

See also: *Cyberpunk*

### **DHTML -- (Dynamic HyperText Markup Language)**

DHTML refers to *web pages* that use a combination of *HTML*, *JavaScript*, and *CSS* to create features such as letting the user drag items around on the web page, some simple kinds of animation, and many more.

See also: *CSS, HTML, JavaScript, Web page*

### **Digerati**

The digital version of literati, it is a reference to a vague cloud of people seen to be knowledgeable, hip, or otherwise in-the-know in regards to the digital revolution.

### **DNS -- (Domain Name System)**

The Domain Name System is the system that translates Internet *domain names* into *IP numbers*. A "DNS Server" is a *server* that performs this kind of translation.

See also: *Domain Name, IP Number, Server*

## **Domain Name**

The unique name that identifies an Internet site. Domain Names always have 2 or more parts, separated by dots. The part on the left is the most specific, and the part on the right is the most general. A given machine may have more than one Domain Name but a given Domain Name points to only one machine. The domain names can all refer to the same machine, but each domain name can refer to no more than one machine.

Usually, all of the machines on a given Network will have the same thing as the right-hand portion of their Domain Names (matisse.net in the examples above). It is also possible for a Domain Name to exist but not be connected to an actual machine. This is often done so that a group or business can have an Internet e-mail address without having to establish a real Internet site. In these cases, some real Internet machine must handle the mail on behalf of the listed Domain Name.

See also: *IP Number, TLD*

## **Download**

Transferring data (usually a file) from another computer to the computer you are using. The opposite of *upload*.

See also: *Upload*

## **DSL -- (Digital Subscriber Line)**

A method for moving data over regular phone lines. A DSL circuit is much faster than a regular phone connection, and the wires coming into the subscriber's premises are the same (copper) wires used for regular phone service. A DSL circuit must be configured to connect two specific locations, similar to a leased line (however a DSL circuit is not a *leased line*).

A common configuration of DSL allows downloads at speeds of up to 1.544 megabits (not megabytes) per second, and uploads at speeds of 128 kilobits per second. This arrangement is called *ADSL*: Asymmetric Digital Subscriber Line.

Another common configuration is symmetrical: 384 Kilobits per second in both directions.

In theory ADSL allows download speeds of up to 9 megabits per second and upload speeds of up to 640 kilobits per second.

DSL is now a popular alternative to Leased Lines and ISDN, being faster than ISDN and less costly than traditional Leased Lines.

See also: *ADSL, Bandwidth, ISDN, Leased Line, SDSL*

**Email** -- (Electronic Mail)

Messages, usually text, sent from one person to another via computer. E-mail can also be sent automatically to a large number of addresses.

See also: *Listserv*®, *SMTP*

**Ethernet**

A very common method of networking computers in a *LAN*.

There is more than one type of Ethernet. By 2001 the standard type was "100-BaseT" which can handle up to about 100,000,000 bits-per-second and can be used with almost any kind of computer.

See also: *Bandwidth*, *FDDI*, *LAN*

**Extranet**

An *intranet* that is accessible to computers that are not physically part of a company's own private *network*, but that is not accessible to the general public, for example to allow vendors and business partners to access a company web site.

Often an intranet will make use of a Virtual Private Network. (*VPN*.)

See also: *Intranet*, *Network*, *VPN*

**FAQ** -- (Frequently Asked Questions)

FAQs are documents that list and answer the most common questions on a particular subject. There are hundreds of FAQs on subjects as diverse as Pet Grooming and Cryptography. FAQs are usually written by people who have tired of answering the same question over and over.

**FDDI** -- (Fiber Distributed Data Interface)

A standard for transmitting data on optical fiber cables at a rate of around 100,000,000 bits-per-second (10 times as fast as 10-BaseTEthernet, about twice as fast as T-3).

See also: *Ethernet*, *T-3*

**Finger**

An Internet software tool for locating people on other Internet sites. Finger is also sometimes used to give access to non-personal information, but the most common use is to see if a person has an account at a particular Internet site. Many sites do not allow incoming Finger requests, but many do.

**Fire Wall**

A combination of hardware and software that separates a *Network* into two or more parts for security purposes.

See also: *Network*

**Flame**

Originally, "flame" meant to carry forth in a passionate manner in the spirit of honorable debate. Flames most often involved the use of flowery language and flaming well was an art form. More recently flame has come to refer to any kind of derogatory comment no matter how witless or crude.

See also: *Flame War*

**Flame War**

When an online discussion degenerates into a series of personal attacks against the debaters, rather than discussion of their positions. A heated exchange.

See also: *Flame*

**FTP -- (File Transfer Protocol)**

A very common method of moving files between two Internet sites.

FTP is a way to *login* to another Internet site for the purposes of retrieving and/or sending files. There are many Internet sites that have established publicly accessible repositories of material that can be obtained using FTP, by logging in using the account name "anonymous", thus these sites are called "anonymous ftp servers".

FTP was invented and in wide use long before the advent of the *World Wide Web* and originally was always used from a text-only interface.

See also: *Login, WWW*

**Gateway**

The technical meaning is a hardware or software set-up that translates between two dissimilar protocols, for example America Online has a gateway that translates between its internal, proprietary e-mail format and Internet e-mail format. Another, sloppier meaning of gateway is to describe any mechanism for providing access to another system, e.g. AOL might be called a gateway to the Internet.

**GIF -- (Graphic Interchange Format)**

A common format for image files, especially suitable for images containing large areas of the same color. GIF format files of simple images are often smaller than the same file would be if stored in *JPEG* format, but GIF format does not store photographic images as well as JPEG.

See also: *JPEG, PNG*

**Gigabyte**

1000 or 1024 *Megabytes*, depending on who is measuring.

See also: *Byte*

## Gopher

Invented at the University of Minnesota in 1993 just before the *Web*, gopher was a widely successful method of making menus of material available over the Internet.

Gopher was designed to be much easier to use than *FTP*, while still using a text-only interface.

Gopher is a *Client* and *Server* style program, which requires that the user have a Gopher *Client* program. Although Gopher spread rapidly across the globe in only a couple of years, it has been largely supplanted by Hypertext, also known as *WWW* (*World Wide Web*). There are still thousands of Gopher *Servers* on the Internet and we can expect they will remain for a while.

See also: *Client, FTP, WWW*

## hit

As used in reference to the World Wide Web, a hit means a single request from a web *browser* for a single item from a web *server*; thus in order for a web browser to display a page that contains 3 graphics, 4 hits would occur at the server: 1 for the *HTML* page, and one for each of the 3 graphics.

See also: *Browser, HTML, Server*

## Home Page (or Homepage)

Several meanings. Originally, the *web* page that your *browser* is set to use when it starts up. The more common meaning refers to the main web page for a business, organization, person or simply the main page out of a collection of web pages, e.g. "Check out so-and-so's new Home Page."

See also: *Browser, WWW*

## Host

Any computer on a *network* that is a repository for services available to other computers on the *network*. It is quite common to have one host machine provide several services, such as *SMTP* (email) and *HTTP* (web).

See also: *Network, SMTP*

## HTML -- (HyperText Markup Language)

The coding language used to create *Hypertext* documents for use on the *World Wide Web*. HTML looks a lot like old-fashioned typesetting code, where you surround a block of text with codes that indicate how it should appear.

The "hyper" in Hypertext comes from the fact that in HTML you can specify that a block of text, or an image, is linked to another file on the Internet. HTML files are meant to be viewed using a "Web Browser".

HTML is loosely based on a more comprehensive system for markup called SGML.

See also: *Browser, Hypertext, WWW*

**HTTP** -- (HyperText Transfer Protocol)

The protocol for moving *hypertext* files across the *Internet*. Requires a *HTTP client* program on one end, and an *HTTP server* program on the other end. HTTP is the most important protocol used in the *World Wide Web (WWW)*.

See also: *Client, Hypertext, Server, WWW*

**Hypertext**

Generally, any text that contains links to other documents - words or phrases in the document that can be chosen by a reader and which cause another document to be retrieved and displayed.

See also: *HTML, HTTP*

**IMAP** -- (Internet Message Access Protocol)

IMAP is gradually replacing *POP* as the main protocol used by email *clients* in communicating with email *servers*.

Using IMAP an email client program can not only retrieve email but can also manipulate message stored on the server, without having to actually retrieve the messages. So messages can be deleted, have their status changed, multiple mail boxes can be managed, etc.

IMAP is defined in RFC 2060

See also: *Client, Email, POP, RFC, Server*

**IMHO** -- (In My Humble Opinion)

Shorthand appended to a comment written in an online forum, IMHO indicates that the writer is aware that they are expressing a debatable view, probably on a subject already under discussion. One of many such shorthands in common use online, especially in discussion forums.

**internet (Lower case i)**

Any time you connect 2 or more *networks* together, you have an internet - as in international or inter-state.

See also: *Internet (Upper case I), Network*

**Internet (Upper case I)**

The vast collection of inter-connected networks that are connected using the *TCP/IP* protocols and that evolved from the *ARPANET* of the late 60's and early 70's.

The Internet connects tens of thousands of independent networks into a vast global *internet* and is probably the largest *Wide Area Network* in the world.

See also: *internet* (Lower case i), *Network*, *WAN*

### **Intranet**

A private *network* inside a company or organization that uses the same kinds of software that you would find on the public *Internet*, but that is only for internal use. Compare with *extranet*.

See also: *Extranet*, *internet* (Lower case i), *Internet* (Upper case I)

### **IP Number**-- (Internet Protocol Number)

Sometimes called a dotted quad. A unique number consisting of 4 parts separated by dots, e.g.

165.113.245.2

Every machine that is on the Internet has a unique IP number - if a machine does not have an IP number, it is not really on the Internet. Many machines (especially servers) also have one or more Domain Names that are easier for people to remember.

See also: *Domain Name*, *Server*, *TCP/IP*

### **IPv4** -- (Internet Protocol, version 4)

The most widely used version of the Internet Protocol (the "IP" part of *TCP/IP*.)

IPv4 allows for a theoretical maximum of approximately four billion *IP Numbers* (technically  $2^{32}$ ), but the actual number is far less due to inefficiencies in the way blocks of numbers are handled by networks. The gradual adoption of *IPv6* will solve this problem.

See also: *IP Number*, *IPv6*, *Network*, *Protocol*, *TCP/IP*

### **IPv6** -- (Internet Protocol, version 6)

The successor to *IPv4*. Already deployed in some cases and gradually spreading, IPv6 provides a huge number of available *IP Numbers* - over a sextillion addresses (theoretically  $2^{128}$ ). IPv6 allows every device on the planet to have its own IP Number.

See also: *IP Number*, *IPv4*, *Network*, *Protocol*, *TCP/IP*

### **IRC** -- (Internet Relay Chat)

Basically a huge multi-user live chat facility. There are a number of major *IRC servers* around the world which are linked to each other. Anyone can create a channel and anything that anyone types in a given channel is seen by all others in the channel. Private channels can (and are) created for multi-person conference calls.

See also: *Server*

**ISDN** -- (Integrated Services Digital Network)

Basically a way to move more data over existing regular phone lines. ISDN is available to much of the USA and in most markets it is priced very comparably to standard analog phone circuits. It can provide speeds of roughly 128,000 bits-per-second over regular phone lines. In practice, most people will be limited to 56,000 or 64,000 bits-per-second.

Unlike *DSL*, ISDN can be used to connect to many different locations, one at a time, just like a regular telephone call, as long the other location also has ISDN.

See also: *DSL*

**ISP** -- (Internet Service Provider)

An institution that provides access to the Internet in some form, usually for money.

**Java**

Java is a network-friendly programming language invented by Sun Microsystems.

Java is often used to build large, complex systems that involve several different computers interacting across networks, for example transaction processing systems.

Java is also becoming popular for creating programs that run in small electronic devices, such as mobile telephones.

A very common use of Java is to create programs that can be safely downloaded to your computer through the Internet and immediately run without fear of viruses or other harm to your computer or files. Using small Java programs (called "*Applets*"), Web pages can include functions such as animations, calculators, and other fancy tricks.

See also: *Applet*, *JDK*

**JavaScript**

JavaScript is a programming language that is mostly used in web pages, usually to add features that make the web page more interactive. When JavaScript is included in an *HTML* file it relies upon the browser to interpret the JavaScript. When JavaScript is combined with *Cascading Style Sheets* (CSS), and later versions of HTML (4.0 and later) the result is often called *DHTML*.

See also: *HTML*

**JDK** -- (Java Development Kit)

A software development package from Sun Microsystems that implements the basic set of tools needed to write, test and debug *Java* applications and *applets*

See also: *Applet*, *Java*

**JPEG** -- (Joint Photographic Experts Group)

JPEG is most commonly mentioned as a format for image files. JPEG format is preferred to the *GIF* format for photographic images as opposed to line art or simple logo art.

See also: *GIF, PNG*

**Kilobyte**

A thousand bytes. Actually, usually 1024 ( $2^{10}$ ) bytes.

See also: *Byte*

**LAN** -- (Local Area Network)

A computer network limited to the immediate area, usually the same building or floor of a building.

See also: *Network, VPN, WAN*

**Leased Line**

Refers to line such as a telephone line or fiber-optic cable that is rented for exclusive 24-hour, 7-days-a-week use from your location to another location. The highest speed data connections require a leased line.

See also: *DSL, ISDN*

**Linux**

A widely used Open Source Unix-like operating system. Linux was first released by its inventor Linus Torvalds in 1991. There are versions of Linux for almost every available type of computer hardware from desktop machines to IBM mainframes. The inner workings of Linux are open and available for anyone to examine and change as long as they make their changes available to the public. This has resulted in thousands of people working on various aspects of Linux and adaptation of Linux for a huge variety of purposes, from servers to TV-recording boxes.

See also: *Open Source Software, Unix*

**Listserv** ®

The most common kind of *maillist*, "Listserv" is a registered trademark of L-Soft international, Inc. Listservs originated on *BITNET* but they are now common on the *Internet*.

See also: *BITNET, Internet (Upper case I), Maillist*

## Login

Noun or a verb.

Noun: The account name used to gain access to a computer system. Not a secret (contrast with *Password*).

Verb: the act of connecting to a computer system by giving your credentials (usually your "username" and "password")

See also: *Password*

## Maillist

**(or Mailing List)** A (usually automated) system that allows people to send *e-mail* to one address, whereupon their message is copied and sent to all of the other subscribers to the maillist. In this way, people who have many different kinds of e-mail access can participate in discussions together.

See also: *Email, Listserv* ®

## Megabyte

A million *bytes*. Actually, technically, 1024 *kilobytes*.

See also: *Byte, Kilobyte*

## Meta Tag

A specific kind of *HTML* tag that contains information not normally displayed to the user. Meta tags contain information about the page itself, hence the name ("meta" means "about this subject")

Typical uses of Meta tags are to include information for *search engines* to help them better categorize a page.

You can see the Meta tags in a page if you view the pages' source code.

See also: *HTML, Search Engine, SEO*

## MIME-- (Multipurpose Internet Mail Extensions)

Originally a standard for defining the types of files attached to standard Internet mail messages. The MIME standard has come to be used in many situations where one computer program needs to communicate with another program about what kind of file is being sent.

For example, *HTML* files have a MIME-type of `text/html`, *JPEG* files are `image/jpeg`, etc.

See also: *HTML, JPEG*

**Mirror**

Generally speaking, "to mirror" is to maintain an exact copy of something. Probably the most common use of the term on the Internet refers to "mirror sites" which are *web* sites, or *FTP* sites that maintain copies of material originated at another location, usually in order to provide more widespread access to the resource. For example, one site might create a library of software, and 5 other sites might maintain mirrors of that library.

See also: *FTP*, *WWW*

**Modem** -- (MODulator, DEModulator)

A device that connects a computer to a phone line. A telephone for a computer. A modem allows a computer to talk to other computers through the phone system. Basically, modems do for computers what a telephone does for humans.

**MOO** -- (Mud, Object Oriented)

One of several kinds of multi-user role-playing environments.

See also: *MUD*

**Mosaic**

The first *WWW browser* that was available for the Macintosh, Windows, and UNIX all with the same interface. Mosaic really started the popularity of the Web. The source-code to Mosaic was licensed by several companies and used to create many other web browsers.

Mosaic was developed at the National Center for Supercomputing Applications (NCSA), at the University of Urbana-Champaign in Illinois, USA. The first version was released in late 1993.

See also: *Browser*, *WWW*

**MUD** -- (Multi-User Dungeon or Dimension)

A (usually text-based) multi-user simulation environment. Some are purely for fun and flirting, others are used for serious software development, or education purposes and all that lies in between. A significant feature of most MUDs is that users can create things that stay after they leave and which other users can interact within their absence, thus allowing a world to be built gradually and collectively.

See also: *MOO*

**MUSE** -- (Multi-User Simulated Environment)

One kind of MUD - usually with little or no violence.

See also: *MUD*

**Netiquette**

The etiquette on the *Internet*.

**Netizen**

Derived from the term citizen, referring to a citizen of the *Internet*, or someone who uses networked resources. The term connotes civic responsibility and participation.

**Netscape**

A *WWW Browser* and the name of a company. The Netscape (tm) browser was originally based on the *Mosaic* program developed at the National Center for Supercomputing Applications (NCSA).

See also: *Mosaic*

**Network**

Any time you connect 2 or more computers together so that they can share resources, you have a computer network. Connect 2 or more networks together and you have an *internet*.

See also: *internet* (Lower case i)

**Newsgroup**

The name for discussion groups on *USENET*.

See also: *USENET*

**NIC -- (Network Information Center)**

Generally, any office that handles information for a network. The most famous of these on the Internet was the InterNIC, which was where most new domain names were registered until that process was decentralized to a number of private companies. Also means "Network Interface card", which is the card in a computer that you plug a network cable into.

See also: *Domain Name, Network*

**NNTP -- (Network News Transport Protocol)**

The protocol used by *client* and *server* software to carry *USENET* postings back and forth over a *TCP/IP network*. If you are using any of the more common software such as *Netscape*, *Nuntius*, *Internet Explorer*, etc. to participate in *newsgroups* then you are benefiting from an NNTP connection.

See also: *Client, Server, TCP/IP*

## Node

Any single computer connected to a *network*.

See also: *Network*

## Open Content

Copyrighted information (such as this Glossary) that is made available by the copyright owner to the general public under license terms that allow reuse of the material, often with the requirement (as with this Glossary) that the re-user grant the public the same rights to the modified version that the re-user received from the copyright owner.

Information that is in the Public Domain might also be considered a form of Open Content.

See also: *Open Source Software*

## Open Source Software

Open Source Software is software for which the underlying programming code is available to the users so that they may read it, make changes to it, and build new versions of the software incorporating their changes. There are many types of Open Source Software, mainly differing in the licensing term under which (altered) copies of the source code may (or must be) redistributed.

See also: *Open Content*

## Packet Switching

The method used to move data around on the *Internet*. In packet switching, all the data coming out of a machine is broken up into chunks, each chunk has the address of where it came from and where it is going. This enables chunks of data from many different sources to co-mingle on the same lines, and be sorted and directed along different routes by special machines along the way. This way many people can use the same lines at the same time.

You might think of several caravans of trucks all using the same road system to carry materials.

See also: *Internet (Upper case I)*, *Router*

## Password

A code used to gain access (*login*) to a locked system. Good passwords contain letters and non-letters and are not simple combinations such as *virtue7*. A good password might be:

5%df(29)            (But don't use that one!)

See also: *Login*

**PDF** -- (Portable Document Format)

A file format designed to enable printing and viewing of documents with all their formatting (typefaces, images, layout, etc.) appearing the same regardless of what operating system is used, so a PDF document should look the same on Windows, Macintosh, Linux, OS/2, etc. The PDF format is based on the widely used Postscript document-description language. Both PDF and Postscript were developed by the Adobe Corporation.

**ping**

To check if a server is running. From the sound that a sonar system makes in movies, you know when they are searching for a submarine.

**Plug-in**

A (usually small) piece of software that adds features to a larger piece of software. Common examples are plug-ins for the Netscape® *browser* and web *server*. Adobe Photoshop® also uses plug-ins.

See also: *Browser, Server*

**PNG** -- (Portable Network Graphics)

PNG is a graphics format specifically designed for use on the World Wide Web. PNG enable compression of images without any loss of quality, including high-resolution images. Another important feature of PNG is that anyone may create software that works with PNG images without paying any fees - the PNG standard is free of any licensing costs.

See also: *GIF, JPEG*

**POP** -- (Point of Presence, also Post Office Protocol)

Two commonly used meanings:  
Point of Presence and Post Office Protocol.

A Point of Presence usually means a city or location where a network can be connected to, often with dial up phone lines. So if an Internet company says they will soon have a POP in Belgrade, it means that they will soon have a local phone number in Belgrade and/or a place where leased lines can connect to their network.

A second meaning, Post Office Protocol refers to a way that e-mail *client* software such as Eudora gets mail from a mail *server*. When you obtain an account from an Internet Service Provider (*ISP*) you almost always get a POP account with it, and it is this POP account that you tell your e-mail software to use to get your mail. Another protocol called IMAP is replacing POP for email.

See also: *Client, Email, IMAP, ISP, Server*

## Port

3 meanings. First and most generally, a place where information goes into or out of a computer, or both. E.g. the serial port on a personal computer is where a *modem* would be connected.

On the Internet port often refers to a number that is part of a URL, appearing after a colon (:) right after the domain name. Every service on an Internet server listens on a particular port number on that server. Most services have standard port numbers, e.g. Web servers normally listen on port 80. Services can also listen on non-standard ports, in which case the port number must be specified in a URL when accessing the server, so you might see a URL of the form:

```
gopher://peg.cwis.uci.edu:7000/
```

This shows a gopher server running on a non-standard port (the standard gopher port is 70).

Finally, port also refers to translating a piece of software to bring it from one type of computer system to another, e.g. to translate a Windows program so that it will run on a Macintosh.

See also: *URL*

## Portal

Usually used as a marketing term to describe a Web site that is or is intended to be the first place people see when using the Web. Typically a "Portal site" has a catalog of web sites, a search engine, or both. A Portal site may also offer email and other service to entice people to use that site as their main "point of entry" (hence "portal") to the Web.

## Posting

A single message entered into a network communications system.

## PPP -- (Point to Point Protocol)

The most common protocol used to connect home computers to the Internet over regular phone lines.

Most well known as a protocol that allows a computer to use a regular telephone line and a *modem* to make *TCP/IP* connections and thus be really and truly on the *Internet*.

See also: *Modem*, *SLIP*, *TCP/IP*

## Protocol

On the Internet "protocol" usually refers to a set of rules that define an exact format for communication between systems. For example the *HTTP* protocol defines the format for communication between web browsers and web servers, the *IMAP* protocol defines the format for communication between IMAP email servers and clients, and the *SSL* protocol defines a format for encrypted communications over the Internet.

Virtually all Internet protocols are defined in *RFC* documents.

See also: *FTP, HTTP, IMAP, POP, PPP, RFC, SLIP, SMTP, SNMP, SSL, TCP/IP, UDP*

### **Proxy Server**

A Proxy Server sits in between a *Client* and the "real" *Server* that a Client is trying to use. Clients are sometimes configured to use a Proxy Server, usually an *HTTP* server. The clients makes all of it's requests from the Proxy Server, which then makes requests from the "real" server and passes the result back to the Client. Sometimes the Proxy server will store the results and give a stored result instead of making a new one (to reduce use of a *Network*). Proxy servers are commonly established on *Local Area Networks*

See also: *Client, HTTP, LAN, Network, Server*

### **PSTN** -- (Public Switched Telephone Network)

The regular old-fashioned telephone system.

### **RDF** -- (Resource Definition Framework)

A set of rules (a sort of language) for creating descriptions of information, especially information available on the *World Wide Web*. RDF could be used to describe a collection of books, or artists, or a collection of *web pages* as in the *RSS* data format which uses RDF to create machine-readable summaries of web sites.

RDF is also used in *XPFE* applications to define the relationships between different collections of elements, for example RDF could be used to define the relationship between the data in a database and the way that data is displayed to a user.

See also: *RSS, Web page, WWW, XML, XPFE, XUL*

### **RFC** -- (Request For Comments)

The name of the result and the process for creating a standard on the *Internet*. New standards are proposed and published on the Internet, as a Request For Comments. The proposal is reviewed by the Internet Engineering Task Force (<http://www.ietf.org/>), a consensus-building body that facilitates discussion, and eventually a new standard is established, but the reference number/name for the standard retains the acronym RFC, e.g. the official standard for *e-mail* message formats is RFC 822.

### **Router**

A special-purpose computer (or software package) that handles the connection between 2 or more Packet-Switched *networks*. Routers spend all their time looking at the source and destination addresses of the *packets* passing through them and deciding which route to send them on.

See also: *Network, Packet Switching*

**RSS** -- (Rich Site Summary or RDF Site Summary or Real Simple Syndication)

A commonly used protocol for syndication and sharing of content, originally developed to facilitate the syndication of news articles, now widely used to share the contents of *blogs*.

RSS is an *XML*-based summary of a web site, usually used for syndication and other kinds of content-sharing.

There are RSS "feeds" which are sources of RSS information about web sites, and RSS "readers" which read RSS feeds and display their content to users.

RSS is being overtaken by a newer, more complex protocol called *Atom*.

See also: *Atom, Blog, RDF, XML*

**SDSL** -- (Symmetric Digital Subscriber Line)

A version of *DSL* where the upload speeds and download speeds are the same.

See also: *ADSL, DSL*

**Search Engine**

A (usually web-based) system for searching the information available on the *Web*.

Some search engines work by automatically searching the contents of other systems and creating a database of the results. Other search engines contain only material manually approved for inclusion in a database, and some combine the two approaches.

See also: *WWW*

**Security Certificate**

A chunk of information (often stored as a text file) that is used by the *SSL* protocol to establish a secure connection.

See also: *SSL*

**SEO** -- (Search Engine Optimization)

The practice of designing web pages so that they rank as high as possible in search results from *search engines*.

There is "good" SEO and "bad" SEO. Good SEO involves making the web page clearly describe its subject, making sure it contains truly useful information, including accurate information in *Meta tags*, and arranging for other web sites to make links to the page. Bad SEO involves attempting to deceive people into believing the page is more relevant than it truly is by doing things like adding inaccurate *Meta tags* to the page.

See also: *Meta Tag, Search Engine*

## Server

A computer, or a software package, that provides a specific kind of service to *client* software running on other computers. The term can refer to a particular piece of software, such as a *WWW* server, or to the machine on which the software is running, e.g. "Our mail server is down today, that's why e-mail isn't getting out."

A single server machine can (and often does) have several different server software packages running on it, thus providing many different servers to *clients* on the *network*.

Sometimes server software is designed so that additional capabilities can be added to the main program by adding small programs known as *servlets*.

See also: *Client, Network, Servlet*

## Servlet

A small computer program designed to add capabilities to a larger piece of *server* software.

Common examples are "Java servlets", which are small programs written in the *Java* language and which are added to a *web* server. Typically a web server that uses Java servlets will have many of them, each one designed to handle a very specific situation, for example one servlet will handle adding items to a "shopping cart", while a different servlet will handle deleting items from the "shopping cart."

See also: *Java, Server, Web*

## SLIP -- (Serial Line Internet Protocol)

A standard that was popular in the early 1990's for using a regular telephone line (a serial line) and a *modem* to connect a computer as a real *Internet* site. SLIP has largely been replaced by *PPP*.

See also: *PPP*

## SMDS -- (Switched Multimegabit Data Service)

A standard for very high-speed data transfer.

## SMTP -- (Simple Mail Transfer Protocol)

The main protocol used to send electronic mail from *server* to server on the Internet.

SMTP is defined in *RFC 821* and modified by many later RFC's.

See also: *Email, RFC, Server*

**SNMP** -- (Simple Network Management Protocol)

A set of standards for communication with devices connected to a TCP/IP *network*. Examples of these devices include *routers*, hubs, and switches.

SNMP is defined in *RFC 1089*

See also: *Network, RFC, Router, TCP/IP*

**SOAP** -- (Simple Object Access Protocol)

A *protocol* for *client-server* communication that sends and receives information "on top of" *HTTP*. The data sent and received is in a particular *XML* format specifically designed for use with SOAP. SOAP is similar to the *XMLRPC* protocol except that SOAP provides for more sophisticated handling of complex data being sent between a client and a server. SOAP actually grew from the work that created *XMLRPC*.

Microsoft's ".NET" system is largely based on SOAP.

See also: *Client, HTTP, Protocol, Server, XML, XMLRPC*

**Spam (or Spamming)**

An inappropriate attempt to use a *mailing list*, or *USENET* or other networked communications facility as if it was a broadcast medium (which it is not) by sending the same message to a large number of people who didn't ask for it. The term probably comes from a famous Monty Python skit which featured the word spam repeated over and over. The term may also have come from someone's low opinion of the food product with the same name, which is generally perceived as a generic content-free waste of resources. (Spam® is a registered trademark of Hormel Corporation, for its processed meat product.)

See also: *Maillist, USENET*

**Spyware**

A somewhat vague term generally referring to software that is secretly installed on a user's computer and that monitors use of the computer in some way without the users' knowledge or consent.

Most spyware tries to get the user to view advertising and/or particular *web pages*. Some spyware also sends information about the user to another machine over the Internet.

Spyware is usually installed without a users' knowledge as part of the installation of other software, especially software such as music sharing software obtained via *download*.

See also: *Download, Web page*

**SQL** -- (Structured Query Language)

A specialized language for sending queries to databases. Most industrial-strength and many smaller database applications can be addressed using SQL. Each specific application will have its own slightly different version of SQL implementing features unique to that application, but all SQL-capable databases support a common subset of SQL.

An example of an SQL statement is:

```
SELECT name,email FROM people_table WHERE country='uk'
```

**SSL** -- (Secure Socket Layer)

A protocol designed by Netscape Communications to enable encrypted, authenticated communications across the Internet.

**Sysop** -- (System Operator)

Anyone responsible for the physical operations of a computer system or network resource. For example, a System Administrator decides how often backups and maintenance should be performed and the System Operator performs those tasks.

**T-1**

A *leased-line* connection capable of carrying data at 1,544,000 *bits-per-second*. At maximum theoretical capacity, a T-1 line could move a *megabyte* in less than 10 seconds. That is still not fast enough for full-screen, full-motion video, for which you need at least 10,000,000 *bits-per-second*. T-1 lines are commonly used to connect large *LANs* to the *Internet*.

See also: *Bit, Internet (Upper case I), LAN, Leased Line, Megabyte*

**T-3**

A *leased-line* connection capable of carrying data at 44,736,000 *bits-per-second*. This is more than enough to do full-screen, full-motion video.

See also: *Internet (Upper case I), LAN, Leased Line*

**TCP/IP** -- (Transmission Control Protocol/Internet Protocol)

This is the suite of protocols that defines the *Internet*. Originally designed for the *UNIX* operating system, TCP/IP software is now included with every major kind of computer operating system. To be truly on the *Internet*, your computer must have TCP/IP software.

See also: *Internet (Upper case I), IPv4, IPv6, Packet Switching, Unix*

**Telnet**

The command and program used to *login* from one *Internet* site to another. The telnet command/program gets you to the login: prompt of another *host*.

See also: *Host, Login*

## **Terabyte**

1000 *gigabytes*.

See also: *Gigabyte*

## **Terminal**

A device that allows you to send commands to a computer somewhere else. At a minimum, this usually means a keyboard and a display screen and some simple circuitry. Usually you will use terminal software in a personal computer - the software pretends to be (emulates) a physical terminal and allows you to type commands to a computer somewhere else.

## **Terminal Server**

A special purpose computer that has places to plug in many *modems* on one side, and a connection to a *LAN* or *host* machine on the other side. Thus the terminal server does the work of answering the calls and passes the connections on to the appropriate *node*. Most terminal servers can provide *PPP* or *SLIP* services if connected to the *Internet*.

## **TLD -- (Top Level Domain)**

The last (right-hand) part of a complete *Domain Name*. For example in the domain name *www.matisse.net* ".net" is the Top Level Domain.

There are a large number of TLD's, for example .biz, .com, .edu, .gov, .info, .int, .mil, .net, .org, and a collection of two-letter TLD's corresponding to the standard two-letter country codes, for example, .us, .ca, .jp, etc.

See also: *Domain Name*

## **Trojan Horse**

A computer program is either hidden inside another program or that masquerades as something it is not in order to trick potential users into running it. For example a program that appears to be a game or image file but in reality performs some other function. The term "Trojan Horse" comes from a possibly mythical ruse of war used by the Greeks sometime between 1500 and 1200 B.C.

A Trojan Horse computer program may spread itself by sending copies of itself from the host computer to other computers, but unlike a *virus* it will (usually) not infect other programs.

See also: *Virus*, *Worm*

## **UDP** -- (User Datagram Protocol)

One of the protocols for data transfer that is part of the *TCP/IP* suite of protocols. UDP is a "stateless" protocol in that UDP makes no provision for acknowledgement of packets received.

See also: *Packet Switching, TCP/IP*

## **Unix**

A computer operating system (the basic software running on a computer, underneath things like word processors and spreadsheets). Unix is designed to be used by many people at the same time (it is multi-user) and has *TCP/IP* built-in. It is the most common operating system for *servers* on the *Internet*.

Apple computers' Macintosh operating system, as of version 10 ("Mac OS X"), is based on Unix.

See also: *Linux, Server, TCP/IP*

## **Upload**

Transferring data (usually a file) from a computer you are using to another computer. The opposite of *download*.

See also: *Download*

## **URI** -- (Uniform Resource Identifier)

An address for a resource available on the Internet.

The first part of a URI is called the "scheme". The most well known scheme is *http*, but there are many others. Each URI scheme has its own format for how a URI should appear.

Here are examples of URIs using the *http*, *telnet*, and *news* schemes:

```
http://internetresearch.donyell.net/glossary.htm
telnet://well.sf.ca.us
news:new.newusers.questions
```

See also: *URL, URN*

## **URL** -- (Uniform Resource Locator)

The term URL is basically synonymous with *URI*. URI has replaced URL in technical specifications.

See also: *URI, URN*

**URN** -- (Uniform Resource Name)

A *URI* that is supposed to be available for along time. For an address to be a URN some institution is supposed to make a commitment to keep the resource available at that address.

See also: *URI*

**USENET**

A world-wide system of discussion groups, with comments passed among hundreds of thousands of machines. Not all USENET machines are on the *Internet*. USENET is completely decentralized, with over 10,000 discussion areas, called *newsgroups*.

See also: *Newsgroup*

**UUENCODE** -- (Unix to Unix Encoding)

A method for converting files from *Binary* to *ASCII* (text) so that they can be sent across the Internet via *email*.

See also: *ASCII, Binary, Email*

**Veronica** -- (Very Easy Rodent Oriented Net-wide Index to Computerized Archives)

Developed at the University of Nevada, Veronica was a constantly updated database of the names of almost every menu item on thousands of *gopher* servers. The Veronica database could be searched from most major *gopher* menus.

Now made obsolete by web-bases search engines.

See also: *Gopher, Search Engine*

**Virus**

A chunk of computer programming code that makes copies of itself without any conscious human intervention. Some viruses do more than simply replicate themselves, they might display messages, install other software or files, delete software or files, etc.

A virus requires the presence of some other program to replicate itself. Typically viruses spread by attaching themselves to programs and in some cases files, for example the file formats for Microsoft word processor and spreadsheet programs allow the inclusion of programs called "macros" which can in some cases be a breeding ground for viruses.

See also: *Trojan Horse, Worm*

**VPN** -- (Virtual Private Network)

Usually refers to a *network* in which some of the parts are connected using the public *Internet*, but the data sent across the Internet is encrypted, so the entire network is "virtually" private.

See also: *Internet (Upper case I)*

**WAIS** -- (Wide Area Information Servers)

Developed in the early 1990s WAIS was the first truly large-scale system to allow the indexing of huge quantities of information on the *Web*, and to make those indices searchable across *networks* such as the *Internet*. WAIS was also pioneering in its use of ranked (scored) results where the software tries to determine how relevant each result is.

**WAN** -- (Wide Area Network)

Any *internet* or *network* that covers an area larger than a single building or campus.

See also: *internet (Lower case i), LAN*

**Web**

Short for "World Wide Web."

See also: *WWW*

**Web page**

A document designed for viewing in a *web browser*. Typically written in *HTML*. A *web site* is made of one or more web pages.

See also: *Browser, HTML, Web, Website*

**Website**

The entire collection of *web pages* and other information (such as images, sound, and video files, etc.) that are made available through what appears to users as a single web server. Typically all pages in a web site share the same basic *URL*, for example the following URLs are all for pages within the same web site:

```
http://www.baytherapy.com/  
http://www.baytherapy.com/whatis/  
http://www.baytherapy.com/teenagers/
```

The term has a somewhat informal nature since a large organization might have separate "web sites" for each division, but someone might talk informally about the organizations' "web site" when speaking of all of them.

See also: *Web, Web page*

**Wi-Fi** -- (Wireless Fidelity)

A popular term for a form of wireless data communication, basically Wi-Fi is "Wireless Ethernet".

See also: *Ethernet*

**Worm**

A worm is a *virus* that does not infect other programs. It makes copies of itself, and infects additional computers (typically by making use of network connections) but does not attach itself to additional programs; however a worm might alter, install, or destroy files and programs.

See also: *Trojan Horse, Virus*

**WWW** -- (World Wide Web)

World Wide Web (or simply Web for short) is a term frequently used (incorrectly) when referring to "The Internet", WWW has two major meanings:

First, loosely used: the whole constellation of resources that can be accessed using *Gopher, FTP, HTTP, telnet, USENET, WAIS* and some other tools.

Second, the universe of hypertext *servers (HTTP servers)*, more commonly called "web servers", which are the servers that serve *web pages* to *web browsers*.

See also: *Browser, FTP, Gopher, HTTP, Internet (Upper case I), Server, URL, Web, Web page*

**XML** -- (eXtensible Markup Language)

A widely used system for defining data formats. XML provides a very rich system to define complex documents and data structures such as invoices, molecular data, news feeds, glossaries, inventory descriptions, real estate properties, etc.

As long as a programmer has the XML definition for a collection of data (often called a "schema") then they can create a program to reliably process any data formatted according to those rules.

**XMLRPC** -- (XML Remote Procedure Call)

A *protocol* for *client-server* communication that sends and receives information "on top of" *HTTP*. The data sent and received is in a particular *XML* format specifically designed for use with XMLRPC.

See also: *Client, HTTP, Protocol, Server, SOAP, XML*

**XPFE** -- (Cross Platform Front End)

A suite of technologies used to create applications that will work and look the same on different computer operating systems. A widely used XPFE application is the Mozilla web browser and its derivatives, such as the Netscape web browser in version 7 and later. The primary technologies used in creating XPFE applications are *JavaScript*, *Cascading Style Sheets*, and *XUL*.

See also: *CSS*, *JavaScript*, *XUL*

**XUL** -- (eXtensible User-interface Language)

A markup language similar to *HTML* and based on *XML*.

XUL used to define what the user interface will look like for a particular piece of software. XUL is used to define what buttons, scrollbars, text boxes, and other user-interface items will appear, but it is not used to define how those items will look (e.g. what color they are).

The most widely used example of XUL use is probably in the Mozilla web browser, where the entire user interface is defined using the XUL language.

See also: *HTML*, *XML*

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