

Glossary

Access Point

Representing points of access to a Wireless LAN network or Hotspot.

ADSL

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

ASCII

This is the defacto 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.

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. The Centre's Leased Line Connects on to Verizon Business Internet Backbone.

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.

Binary

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

Binhex

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

Bit

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.

Bluetooth technology

Allows connection between Bluetooth devices over a limited area (10metres).

bps

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

Browser

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

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.

Category 5 Cable

Unshielded twisted pair with 100 ohm impedance and electrical characteristics supporting transmission at frequencies up to 100 MHz.

Category 5e Cable

"Enhanced Cat 5" exceeds Cat 5 performance. Very similar to Cat 5, it has improved specifications for NEXT, PSELFEXT, and Attenuation.

Category 6 Cable

In June 2002 TIA approved specification for Cat 6 doubling Cat 5 bandwidth to 200 MHz. Cat 6 is backward compatible with lower Category grades and supports the same Ethernet standards as Cat 5e.

DNS

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.

Download

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

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.

DSL

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

E1

Similar to the North American [T-1](#), E1 is the European format for digital transmission. E1 Wide-area digital transmission scheme used predominantly in Europe that carries data at a rate of 2.048 Mbps. E1 lines can be leased for private use from common carriers.

E3

Similar to the North American [T-3](#), E3 is the European format for digital transmission. E3 Wide-area digital transmission scheme used predominantly in Europe that carries data at a rate of 34.368 Mbps. E3 lines can be leased for private use from common carriers.

802.11a

802.11a describes the wireless networking standard for a [WLAN](#) WLAN that operates in the 5 GHz radio band (ISM frequency band). 802.11a-based WLANs can achieve a maximum speed of 54 Mbps, providing nearly five-times faster networking data rate than [80211b](#), and can handle more traffic than 802.11b-based networks.

802.11b

The [IEEE](#) wireless networking standard for a WLAN that operates in the 2.4 GHz radio band (ISM frequency band). It can provide data rates of up to 11 Mbps per second at distances up to approximately 300 feet.

802.11g

802.11g is a proposed standard, describing a wireless networking method for a WLAN that operates in the 2.4 GHz radio band (ISM—Industrial Scientific Medical frequency band). By using OFDM technology, 802.11g-based WLANs will be able to achieve a maximum speed of 54 Mbps. 802.11g is backward compatible with the 802.11b standard.

E-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.

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.

Firewall

A firewall is a system that secures a network, shielding it from access by unauthorized users. Firewalls can be implemented in software, hardware or a combination of both. In addition to preventing unrestricted access into a network, a firewall can also restrict data from flowing out of a network.

Gateway

The technical meaning is a hardware or software set-up that translates between two dissimilar protocols. Another meaning of gateway is to describe any mechanism for providing access to another system, e.g. a router on a LAN may be referred to as a Gateway onto the Internet.

Gigabyte

1024 Megabytes.

Home Page (or Homepage)

The web page that your browser is set to use when it starts up. Or the website of a company or organisation.

Hotspot

Area or building where the Internet can be accessed from an 802.11x enabled laptop or PC with minimal configuration.

HTML

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. HTML files are meant to be viewed using a "Web Browser".

HTTP

The protocol for moving hypertextfiles 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).

IEEE

Institute of Electrical and Electronic Engineers (IEEE).

internet (Lower case i)

When 2 or more networks are connected together, you have an.

Internet (Upper case I)

The vast collection of inter-connected networks that are connected using the TCP/IP. 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.

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.

IP Number (Internet Protocol Number)

Sometimes called a dotted quad. A unique number consisting of 4 parts separated by dots, e.g. 192.168.0.1. 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. Dis-unique or Private and Un-routable IP addresses can be used in Private LANs.

ISDN

Basically a way to move more dataover existing regular phone lines. It can provide speeds of roughly 128 kilobits-per-second over two channels of 64 kilobits-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.

ISP

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

Kilobyte

A thousand bytes. Actually, usually 1024 (210) bytes.

LAN

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

LCD

Used in flat screens technology.

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., the Centre's Leased Lines can run at speeds of 34Megabits-per-second.

Megabyte

1024 kilobytes.

Modem

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.

Network

2 or more computers connected together so that they can share resources, connect 2 or more networks together and you have an internet.

PSTN

The regular old-fashioned telephone system.

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.

SDSL

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

Server

A computer, or a software package, that provides a specific kind of service to client software running on other computers.

SMTP

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

TCP/IP

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.

URI

An address for resources available on the Internet, such as websites e.g. www.qeiicc.co.uk

URL

A global address, as above.

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.

VPN

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. Users can remotely connect into their corporate LAN using VPN software or hardware.

Wi-Fi

A popular term for a form of wireless data communication, basically Wi-Fi is "Wireless Ethernet", there are several standards. 802.11a/b & g are supported at the Centre.

WWW

The basis for the Internet.