

Glossary of broadband terms

3G:

Refers to the third generation of mobile phone technology following on from 2G. 3G allows for faster access to the internet and allows services including video calls and wireless internet.

4G:

The next generation of mobile access technology that supersedes the speeds of 3G technologies.. Also often referred to as LTE Long Term Evolution technology.

Access line speed:

The access line speed of your broadband connection is the maximum speed your provider can potentially meet to transfer data from the local telephone exchange to your home modem.

Access network:

The part of the network that connects customers to the exchange, sometimes called the local loop or the last mile.

ADSL:

Asymmetrical Digital Subscriber Line – This is the most common type of broadband internet connection. It's delivered over a standard telephone line, and you can still make telephone calls too. VDSL, ADSL+, ADSL2+ ADSL Max etc are all forms of ADSL offering differing bandwidths. All these technologies are affected by the length and quality of the telephone line with bandwidth reducing over the length of the line.

Backhaul:

The middle part of the network that links your local exchange to the core network.?

Bandwidth:

This is the amount of data that can be transferred by your internet connection per second. This is measured in bits per second (bps) or mega bits per second (Mbps)

Basic broadband:

Broadband which delivers access line speeds of at least 2Mbps

BDUK:

Broadband Delivery UK (part of the Government Department for Culture Media and Sport) is the organisation responsible for the Government's policies on broadband.

Bit:

This is a single unit of data. A kilobit (Kb) is 1,000 bits. A megabit (Mb) is 1,000,000 bits. A Gigabit (Gb) is 1000 megabits and a Terabit (Tb) 1000 Gigabits.

Broadband:

Broadband, or more correctly broadband access allows permanent, faster access to the internet due to the increased bandwidth. The most commonly used form is ADSL (Asymmetrical Digital Subscriber Line) which uses the existing telephone line and remains connected so there is no need to dial it up each time and you

can make phone calls while using the internet. Other broadband access technologies include cable TV networks, satellite and radio.

Bundle:

This is effectively a package deal. A broadband bundle could be a combination of broadband and line rental and/or TV.

Byte:

A number of bits that make up a block of data. This number is not fixed, but is usually 8. (can be 32 or 64 bits) . The size of data files is described in Bytes - e.g. 12 MB (Mega Bytes).

Cabinet:

A green box that you might see on a street corner in a town or city that connects telephone lines to the telephone exchange. Also known as a primary connection point.

Cable:

An abbreviation for HFC (offered by Virgin Media) or more generically any physical cable (e.g. fibre-optic cables).

Community hubs:

Communities will either take responsibility for actual civil engineering of the network or take greater control for managing the network.

Coverage:

The extent to which an area is connected to a network (usually expressed as a percentage or fraction).

Data:

A general term for files, videos, text, pictures or sound stored on, processed by, sent or received by your computer.

DCMS:

The Government Department for Culture Media and Sport.

Dial-Up:

Outdated Internet connection using a phone line. You have to dial a number (using your computer and conventional phone line) and usually give a password before you can gain access to the internet, e-mail, etc. As the connection is using your phone line you cannot make or receive telephone calls at the same time.

Digital Britain:

Report on the digital economy published by the Labour Government in 2009

Download:

This is data that goes from the internet to your computer — so for example emails, web pages or video downloaded from the internet, etc.

DSL:

Digital subscriber line: a group of technologies that deliver data services (including broadband) over the wires of the telephone network. (See also ASDL)

Ducts:

Underground pipes that hold copper or fibre cables.

Ethernet:

This is a network standard for data transfer across a Local Area network (LAN).

Exchange:

The building that your telephone line is connected to.

Fibre:

Fibre in broadband refers to the use of fibre-optic cable. This is the use of a glass or plastic tube which is used to send network signals and is often used in replacement of a copper cable. Fibre has the advantage of being easily upgradeable by only changing the equipment connected at each end and it allows data to be sent at very high speeds.

Final third:

A term coined in the 2009 Digital Britain report to refer to the estimated third of the population who could not get next generation access 'unaided' – i.e. without a government subsidy.

Firewall:

A firewall acts as a barrier against unauthorised access to your computer by hackers via the internet.

First generation access:

Broadband with an access line speed of less than 2Mbps

FTP:

File transfer protocol — a process of obtaining and uploading files to and from the internet.

FTTC:

Fibre to the cabinet. Fibre is laid from the telephone exchange to the street cabinet (usually a green on-street cabinet) and then copper from the street cabinet to the premise.

FTTH/FTTP:

Fibre to the home or fibre to the premises. Fibre is laid from the telephone exchanges direct to premises. This usually provides a faster connection than fibre to the cabinet but has higher costs due to the extra infrastructure.

GPS

Global positioning system. This allows the user to know exactly where they are on earth and is now often used within hand-held devices.

HFC:

Hybridfibre-coax (coaxial cable): a network using both fibre (for the backbone or core) and coaxial cable (for the access i.e. to the premise)

Internet protocol:

This enables information to be routed from one network to another. The information is sent in packets and then reassembled into information when it reaches its destination.

Instant messaging:

A service that allows you to 'chat' with another internet user in real time by typing.

IP address:

The unique numerical address that every computer on the internet has.

ISP:

Internet service provider - the company that supplies your connection to the internet and usually offers additional services such as email, web filtering and search facilities.

LAN:

Local area network is a short distance network linking multiple computers in a single building. With home networking this will usually refer to the network within your house.

Landline:

The telephone line. A fixed connection between the telephone exchange and the home or business

Leased line:

A dedicated telephone or cable line between two points, e.g. between two offices of a large corporation.

Local loop unbundling (LLU):

The opening up a telephone exchange so that it can be used by a number of different broadband providers. These broadband providers are then able to use connections from the telephone exchange through to the customers' homes to deliver home broadband.

Masts:

Powerful radio transmitters and receivers which allow mobile phones and computers to connect to the internet or mobile phone networks.

Mbps:

Megabits per second. Alongside price, speed is one of the key factors people talk about when it comes to choosing broadband. All of the internet service providers quote the broadband download speed as a key part of their advertising. Broadband speed is measured in megabits per second, commonly written as Mbps. It essentially means the rates at which data is downloaded or uploaded.

Modem:

The device that allows your PC to connect to the internet via your telephone line. They change the data coming out of your computer to a form that can be transmitted over the telephone line to the exchange. They can be external boxes, or part of your computer (typically a laptop) or part of your home router.

Narrowband:

The opposite of broadband. Normally used to refer to a modem running at a speed of 56Kbps or less.

NGA (next generation access) broadband networks:

An access networks which consist wholly or in part of optical elements and which are capable of delivering faster broadband access services) as compared to those provided over existing copper networks? In this context NGA Broadband networks must be capable of delivering access line speeds of at least 30 Mbps.

Not-spot:

An area where there is no wired internet service available or the service is so poor it is effectively of no use.

Ofcom:

The Office of Communications. Ofcom is the communications regulator. It regulates TV, radio, telecoms, mobiles and spectrum.

Ping:

When a message is sent to another computer and the command waits for a response. This is a method often used to check if a network is reachable.

Protocol:

A command sent from one computer/network to another.

Router:

A device that routes data using the IP address. A router in your home allows access to multiple computers from one broadband connection. Larger routers in the network direct the flow of data traffic round the internet.

Satellite broadband:

A form of broadband that uses a satellite connections to provide a permanent connection to the internet.

Slow spot:

A 'broadband slow-spot' is a place you can get broadband, but only below 1Mbps

Speed:

Often used as a term to replace bandwidth when describing broadband access – the wider the bandwidth, the faster the "speed"

Standard broadband:

A broadband service operating at 2 Mbps.

State aid:

State aid is a European Commission term The European Commission (EC) requires that local authorities only invest in areas where they can demonstrate there is no current, or planned (i.e. within the next three years) deployment of either standard or superfast broadband by the private sector.

Streaming:

Allows the user to watch or listen to a download as the download commences in the background. This is most common with live streaming, such as with commentary from sports events, etc.

Superfast Broadband:

An access line speed of greater than 24Mbps download.

Upload:

Transfer of files from your computer to the internet.

VoIP:

Voice Over Internet Protocol — allowing you to make long distance voice or video calls using your computer. An example of this is Skype.

Wayleave:

A wayleave is a contractual agreement between a landowner and a utility provider which allows the provider to install plant and equipment on private land and have access rights to maintain and repair it

Wi-fi:

Wireless internet, often referred to as Wi-Fi allows you to connect to the internet anywhere in the house even the garden without the need of wires.

Wi-Fi is a trademark of the Wi-Fi alliance which is used to brand devices which have the technology to allow you to connect to the wireless internet.

Wireless broadband:

This is when a broadband connection is formed without wires such as when using a laptop or through a mobile phone. Wireless networks can be set up using radio waves to link users.