



# Get up to SPEED

## Digital Champions

### EXPLANATION OF BROADBAND TERMS

#### TYPES OF CONNECTION

##### ▶ 3G

Mobile phone technology that includes services/applications with faster access to the web.

##### ▶ 4G

Mobile communications standard intended to replace 3G, allowing wireless internet access at a much higher speed.

##### ▶ ADSL

Asymmetric Digital Subscriber Line – the technology that allows you to receive broadband using existing telephone networks. It works like a very fast telephone line that is always connected to the internet. By converting data more efficiently over a wider frequency range than a computer's modem, ADSL makes the line much faster.

##### ▶ ADSL2/2+

ADSL2 and ADSL2+ extend the capability of regular ADSL by doubling the number of downstream bits. This can lead to connection speeds of up to 24Mbps downstream and 1Mbps upstream, depending on the distance of the DSLAM (DSL Access Multiplexer) from the customer's home.

#### COMMON TERMS

##### ▶ Synchronise/Sync

Synchronization occurs when a mobile device communicates with applications on a personal computer or a server. This is often referred to simply as a "sync" or a "docking".

##### ▶ Data

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

##### ▶ Download

Moving files from the internet on to your PC, such as music, movies and photos.

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#### COMMON TERMS

▶ **Upload**

Transferring files from your computer to the internet, such as adding photos to Facebook. This speed is usually slower than download speed.

▶ **Unlimited Download**

This means you can download as much as you like — ideal for heavy users, such as online gamers. However, this is sometimes subject to a fair usage policy.

▶ **Truly Unlimited Download**

This means you can download as much as you like — ideal for heavy users, such as online gamers. However, this is sometimes subject to a fair usage policy.

▶ **Fair usage policy/Usage cap**

Applied to a service allowing nominally unlimited use for a fixed fee. It sets a cap on what may be used and is intended to allow normal usage, but prevent what is considered excessive.

▶ **Streaming**

Allows the user to watch/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.

▶ **FTP**

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

▶ **Ethernet**

This is a network standard for data transmission, most commonly used on local area networks (LANs) such as in the workplace. New systems are now capable of running at 1,000Mbps.

▶ **IP address**

An individual number attributed to every computer on the internet for identification purposes.

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#### MEASURES

##### ► Bandwidth

This is the amount of data that can be transferred over a connection usually expressed in bits/bytes per second (bps).

##### ► Bit V Bytes

Megabits shown as Mb (Small b), MegaBytes shown as MB (Capital B). Connection speeds and data sizes are measured differently, but people tend refer to them with the same names. People often say “megs” and forget that the word “meg” refers to two very different values. Do they mean megabits or megabytes? Aren't they the same? Actually no, there's a big difference between a bit and a byte. A byte is much bigger: eight times bigger, in fact, with eight bits in every byte. By extension, there are eight megabits in every megabyte and 1 gigabyte is 8 times bigger than 1 gigabit.

##### ► Mbps

Megabits per second. This measures how quickly data can be transmitted.

##### ► Speed

The rate at which you can receive downloads. For broadband, the connection is normally at least 256kbps and can be as much as 24Mbps.

##### ► Broadband

Broadband is a faster version of the internet that works at higher speeds because of an increased bandwidth. The most commonly used form is ADSL (Asymmetric Digital Subscriber Line) which is an upgraded home telephone line that remains connected so there is no need to dial it up each time and you can make phone calls while using the internet.

##### ► Superfast Broadband

BDUK has defined Superfast Broadband as having a potential headline access speed of at least 20Mbps, with no upper limit. Typically, at a wholesale level, the underlying capability can be measured in gigabytes.

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### EXPLANATION OF BROADBAND TERMS

#### HARDWARE

##### ► Modem

The device that allows your PC to connect to the internet via your telephone line – previously they had to be plugged in, but now they are inbuilt within computers.

##### ► Router

Wireless - internet data comes in to the router from the phone line and is converted into radio signals. This signal is then picked up by the network card in your computer, smartphone or games console and translated into internet data again. Wireless routers are included in wireless broadband packages, and are essential in homes where multiple devices connect to the internet at the same time.

Wired - wired routers are becoming less and less common and are now used mostly in households where the primary means of connecting to the internet is a fixed-line PC.

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