How to improve your broadband speed

First, if you've got a broadband connection, the Internet Service Provider (ISP) package you're paying for probably advertises faster speeds than you can actually receive - "up to 4Mbps download" for example.

"Up to" is the best case scenario; the theoretical speed that would be achievable, in a perfect world........

Most broadband connections currently are "Asymmetric". This means that the connection speed TO you is normally much higher than the speed FROM you.

This makes sense for many web users – they browse the web, download files etc, but tend to only send emails and perhaps attach the occasional file or upload images to a website.

Some business users may need a "Symmetric" broadband line, if they need to send large files such as technical drawings or use video conferencing. As the name implies, download and upload speed are the same in this case.

Whichever system you use, it's unlikely that you will be able to achieve the speeds quoted, even with another ISP: some do achieve better results than others though.

You should also note that your broadband connection circuit is normally shared with other users. This is called the "contention ratio".

These ratios vary between suppliers – a domestic broadband contention ratio may be 50:1, i.e. you share the circuit with up to 50 other users.

If there are many users on your circuit at the same time, speeds are likely to fall.

A typical time when many users are on the Internet is the evening. Many users experience a drop in speed at this time, both because of "contention" and general web traffic.

There have even been reports that weather conditions can also sometimes have an effect on broadband speed too.

However, there are some simple steps that you can take to improve the speed of your existing connection.

1. What speed are you actually getting?

To start, it's useful to know what speeds you currently receive for both downloads and uploads.

There are many free speed testers on the web: results may vary slightly between them. There are a couple of things to bear in mind before you start though:

- You will get a more accurate result if you use a PC that is physically connected to your broadband router – not through Wi-Fi.

  If this isn't possible, it is still worth running the test.

- It's better if no one else is using the web (e.g. via Wi-Fi) at your premises at the same time.

- It's also useful to test at different times of the day – general web traffic at peak times can cause congestion, as can the "contention" issue we mentioned earlier.

- Very heavy web users may find that their connection speed may be "throttled".

  This means that at some times, they may have their speed restricted, to allow other users fair access.

This will normally be detailed in the "Fair Usage" section of your ISP contract.

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Example speed checkers:

- www.speedtest.net – very straightforward speed test that also allows you to rate your ISP.

- www.thinkbroadband.com/speedtest.html - when you've completed your speed test, this also allows you to view a map, showing what other users in your area achieved on their speed tests.

  It also can show "not spots" – where broadband isn't available, and "slow spots", where connection will currently be below 2Mbps.

Once you know what speed your connection averages, we have some suggestions as to how you might improve this.

If your broadband is via a telephone connection – ADSL – all the below sections of advice should work for you.

If you receive broadband via cable (e.g. from Virgin Media in Lincolnshire), sections 2 – 7 apply to you.

2. Make sure your PC is up to date

Are you using the latest versions of web browsers such as Internet Explorer or Firefox?

If not, download them to bring your computer up to date.

Then, use the "Tools"" menu and then "Internet Options" to clear temporary internet files and cookies.

3. Make sure your anti-virus programme is up to date

Many viruses etc can cause difficulties. Always make sure that you have good anti-virus protection that is kept up to date, preferably automatically.

This is absolutely essential. PCs connected to the Internet via broadband without anti-virus protection can become infected very rapidly.

There are many excellent anti-virus programs available for low cost.

4. Switch off your Wi-Fi

With the growth of devices that connect to the web via Wi-Fi, many homes have this simple connectivity set up.

However, if the Wi-Fi isn't in use, (and you have a PC directly connected to your broadband connection), switching off Wi-Fi should increase your connection speed on that PC.

You can always switch the Wi-Fi back on again when needed.

5. Make sure your Wi-Fi has a password

Although Wi-Fi is great for sharing access to the Internet across a home or business, it does have risks.

The range of most Wi-Fi systems is up to 100 meters – so you may be sharing your Internet access with a neighbor, or even a hacker. If your Wi-Fi doesn't have a password, anyone could access this route.

As well as a neighbour "piggybacking" onto your Internet connection (and making your web browsing slower), you may be giving intruders access to information on your PCs or laptops.

It's easy to stop this – just give your Wi-Fi a password that all devices that connect to it need to automatically give to gain access.

It's not as complex as it sounds – this link to the BBC website details how to do this easily:

http://tinyurl.com/5wg6gwl

6. Stick to your ISPs "Fair Usage" policy

As we mentioned earlier, many ISPs will "throttle" connection speeds for (what they consider) very heavy users.

This means that they will deliberately reduce your broadband connection speed. This is to make sure that other users get their fair access to the Internet.

This is called a "Fair Usage" policy, and will be incorporated into your contract with them.

Although you may have subscribed to an "unlimited download" package, "Fair Usage" will still apply. There are very few totally unlimited packages available in practice.

For example, many ISPs may reduce your connection speed between e.g. 4pm and midnight, if you consistently download large files between those times.

Typical users who may run across this problem are those who:

- Download lots of films or music.

- Play online games.

- Work from home and connect remotely to their office.

- Any other heavy downloaders.

If you run into this problem, your ISP may email you, and suggest that you move packages and subscribe to one offering a larger download capacity.

7. Make sure there's no electrical interference

Making sure that your broadband connection is kept free from electrical interference may help connection speeds.

It's best to keep your modem and wiring away from mains power cables.

8. Use micro-filters

Micro-filters are small devices which plug into the telephone socket, and split the signal for the broadband connection and your telephone.

They prevent the voice and broadband signals interfering with each other. If you have extension telephone points, it's important that each has a micro-filter fitted too.

If you have a fax machine, or a burglar alarm that is connected to the phone system, don't forget these too.

Finally, if you have more than 4 telephones / faxes/ alarms etc attached to a single telephone line, your broadband may not work at all.

The below web link gives clear instructions about using micro-filters correctly:

http://tinyurl.com/ns4jqp

9. Buy a BT I-Plate

An I-Plate (also known as a BT Broadband Accelerator) is an easy to install device that fits into the telephone wall socket. It may reduce interference at the point where broadband enters your property.

Telephone extension wiring in your property may pick up all kinds of electrical interference from lights, TVs and other electrical equipment.

This interference can cause a slower broadband speed. An I-Plate blocks this interference and may improve your broadband speed.

So, if you have extension wiring to other telephone sockets in your property, (whether you use them or not), an I-Plate may help.

The fitting is very straightforward, but you do need to check that you have the right sort of BT socket before you proceed (over 70% of UK households do).

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The cost for an I-Plate is around £9 direct from BT, and they are available to buy online from the link to the BT website below.

This site also details what sort of socket is suitable, and how to fit the device yourself.

http://tinyurl.com/kkulgw

For technical reasons, any increase in speed may take a few days to occur.

A good idea may be to measure your broadband speed before fitting, then everyday for the next few weeks, until any increase in speed stabilises.

There is no guarantee that this will work, but substantial increases in broadband speed are quite common, and the price is not much of a barrier.

10. Raise the issue with your ISP

If the above measures haven't significantly improved your broadband connection speed, you should raise the issue with your ISP.

There may be other issues outside your control which are affecting possible speeds to your property: for example, the wiring from the telephone pole to your building.

You may also need to discuss moving to a higher package if you are running into the "Fair Usage" policy.

11. Change ISP

You may find that other operators in your area have better speeds – but do be aware that "up to" issue mentioned earlier still applies.

If available in your area, you may wish to move service from a telephone-based broadband to other suppliers such as Virgin Media cable.

12. Get involved with a local campaign for High Speed broadband.

If you need better broadband connectivity and can't achieve it by the above, why not get involved with a local community campaign to improve access – or even start one yourself?

You can find out more details on the www.onlincolnshire.net website.

13. Useful Links

www.onlincolnshire.net
Useful information about what's happening with broadband in Lincolnshire, and how to start a community campaign.

www.speedtest.net – very straightforward speed test that also allows you to rate your ISP.

www.thinkbroadband.com/speedtest.html - when you've completed your speed test, this also allows you to view a map, showing what other users in your area achieved on their speed tests.

http://tinyurl.com/5wg6gwl - link to the BBC website, detailing how to password protect your Wi-Fi.

http://tinyurl.com/ns4jqp - link to how to use micro-filters correctly.

http://tinyurl.com/kkulgw - link to the BT website for I-Plate

www.moneysupermarket.com/broadband - comparison website of different broadband providers.

www.thinkbroadband.com – website covering a range of issues about broadband.

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