How to...

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Connect to the internet

This guide can be found at
http://learning.digitalunite.com/how-to-connect-to-the-internet/

Digital Unite

How to connect to the internet

All modern computers and laptops are capable of connecting to the internet, as are many other devices, including mobiles, tablets, e-readers, televisions, video games consoles.

There are two ways of getting the internet at home. The most popular way is to have your telephone line (also known as a 'landline') converted to broadband so that it can carry normal phone calls and internet data at the same time.

However, if you don't have a landline or if you want to be able to use the internet when you're out and about, you might prefer mobile internet from one of the mobile network providers. This can be used anywhere there's a mobile signal but does tend to be slower and more expensive than broadband through a landline.

In this guide, we'll explain how to get the internet at home and how to connect your computer to it, using a landline.

What you'll need:

- a reasonably up-to-date computer
- a telephone socket, preferably the master phone socket, and a spare power point. It's best to have both of these near the computer to avoid having wires trailing across the floor.

Follow these step-by-step instructions to connect to the internet:

Step 1: Choose an internet service provider (ISP). This could be the company that provides your telephone line or it could be one of the many independent providers. To help you choose, have a look at a comparison website such as www.broadbandchoices.co.uk and ask people you know for their opinion.

When choosing a supplier, you need to take into account the various packages on offer. These will differ in price depending on the maximum speed they offer and the monthly usage allowance.

The speed is measured in megabits (Mb). A 1Mb connection speed is perfectly acceptable for viewing websites. However, if you want to be able to play games or watch TV online or share your internet between two or more computers, you should choose at least 2Mb. Some ISPs offer up to 24Mb or even 50Mb. But the speed you actually get

also depends on many other things, not least the distance of your computer from the telephone exchange and the condition of the cables.

Some ISPs, particularly the mobile suppliers, impose a monthly download limit or usage allowance. This is measured in gigabytes (Gb). To put this in context, 1Gb will allow you to visit approximately 10,500 webpages or download around 205 songs.

Step 2: Having chosen an ISP and signed the contract, you'll have to wait a few days while your line is converted to broadband. During this time, you should receive a letter with your username and password and the hardware you'll need: a small box called a *router* and its attachments. You can see an example on the right.

Step 3: Once you're told that your broadband is active, you can set up your router. It should have come with three cables:

- a network cable to connect the router to your computer
- a power cable
- a cable that will go between your router and a microfilter

Plug one end of the network cable into the appropriately shaped socket in the router, and the other end in a similarly appropriately shaped socket in your computer.
Take the power cable and plug one end in the router and the other in a nearby power point.

You should have also received a microfilter (*see right*). This splits the signal in the telephone wire in two: voice and broadband. You plug the dangly end of the microfilter into your telephone socket. Then in the sockets at the other end, you plug in (1) the cable from your own telephone and (2) the cable that came with your router. As these two sockets are different shapes, you can't plug a cable into the wrong socket. Finally, plug in the other end of the router cable into the router itself.

You'll also need to install a microfilter in any other telephone socket in the house that's in use. Not doing this can result in loss of internet speed and interference on the line. If no router is being used with a socket, you'll leave one of the microfilter's sockets empty.

Step 4: When you get the router, you should also receive a CD. Once you've set up the router, all you need to do is put the CD into your computer and follow the step-by-step instructions. If you don't want to do this yourself, some companies offer a home installation service and, for an extra cost, will send an engineer to set up your broadband connection for you.

How to connect to WiFi

WiFi is a wireless broadband connection that allows you to connect to the internet without using any cables. It's particularly popular for use with laptops because they can

then be used in any room of the house. WiFi is also available in lots of public places, such as pubs, cafés, hotels and even some buses!

This guide will help you to understand how to connect your computer to WiFi. It's based on Windows 7, but the procedure is very similar in other versions of Windows and in Mac OS X. You'll find a useful guide to connecting other operating systems to WiFi on the BT website.

What you'll need:

- a wireless router (*right)*
- a computer with a built-in wireless adaptor or a separate adaptor.

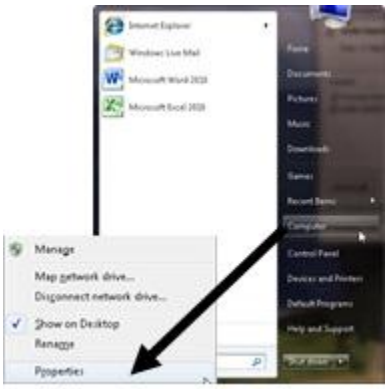
Follow these step-by-step instructions to connect to wifi:

Step 1: Set up your wireless router (*see* How to connect to the internet above for instructions). Most internet providers now supply wireless routers as standard. When setting up one, it's important to provide appropriate security so that your computer can't be entered by anyone but you. Instructions for this should be supplied with the router, but if in doubt, consult an expert.

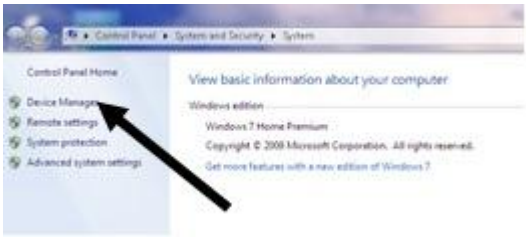
Step 2: Check that your computer has a built-in wireless adaptor (*see left*). Up-to-date laptops generally have one, but most desktop computers don't.

To check whether there's a built-in adaptor, follow these steps:

- Click the 'Start' button.
- Right-click **Computer**.
- Click **Properties**.



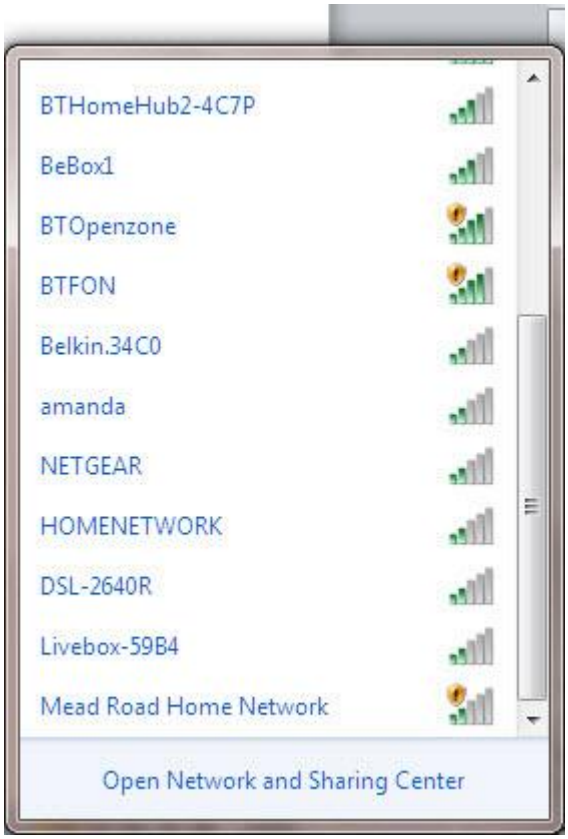
- Click **Device Manager**.



- Click the arrow next to 'Network Adaptors' to see if there's a wifi adaptor listed.

WiFi icon

If there is a WiFi adaptor, a WiFi icon should also appear in the system tray in the bottom right-hand corner of the screen. In Windows 7, it looks like the one on the right:
If you don't have a wireless adaptor, you'll need to buy one to plug into one of your computer's USB ports. The adaptor should be supplied complete with instructions on how to use it to connect to a wireless network.



Step 3: To connect to a wireless network, click the WiFi icon. You should now see a list of available networks – an example is on the right.

Step 4: To connect to a network, just click on its name. If it's a secure network and it's the first time you've used it, you'll need a password. If it's your home network, your internet provider will have given you a password – sometimes it's printed on a sticker attached to the router.

If you'll be using the same connection regularly, you can tick the box to connect automatically.

Step 5: The first time you connect to a network, you'll be asked to choose whether it's a home, work or public network.

Warning: Be very careful if you connect to unsecured wireless networks such as wifi 'hotspots' in public places. While on them, it's important not to use websites that require you to enter personal or financial details as other users of the network could gain access to these details.

How to check your internet speed

When you sign up for broadband, your internet provider (ISP) will tell you the maximum speed you can expect. However, the reality can be quite different.

It's very easy to find out what speed you're actually getting.

Follow these step-by-step instructions to find out your internet speed:

Step 1: Open your web browser – for example, Internet Explorer 8.

Step 2: Click in the address bar at the top and type in 'www.broadband.co.uk'.

Step 3: Press the 'Enter' key on the keyboard. This will take you to the broadband.co.uk website that, among much else, will check your internet speed for you.

Step 4: When the page has loaded, scroll down and click **Speed check.**

Step 5: Click in the box next to 'Your postcode' and type your postcode. You are asked for this because the speed of broadband provided over a standard telephone line depends a great deal on the distance between your home and the telephone exchange.

Step 6: The following three boxes – which allow you to rate your ISP – are optional. Click the arrows to choose from the drop-down lists.

Step 7: Finally, click **Click here to start speed test.**

The results will show you two speeds:

- The **download** speed is how long it takes for pages to appear on your screen and to download files such as music files from the internet to your computer.
- The **upload** speed is the opposite – for instance, how long it takes to upload photographs from your computer to an online photo album.
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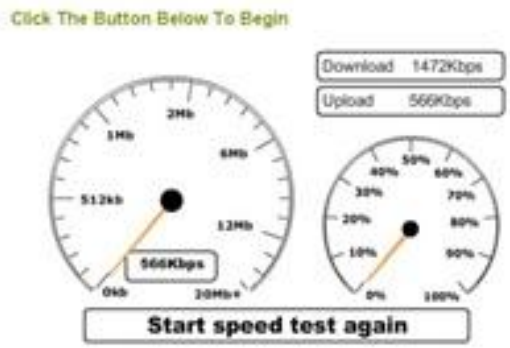

If you typed in your postcode, you should also be able to find out what the maximum speed could be in your area.

It's important to note that internet speeds can vary considerably at different times of the day, so you should check yours more than once. If your internet speeds are slower than you think they should be, read our guide to speeding up your internet connection below.

How to speed up your internet connection

Does your broadband seem a bit sluggish? If so, there may just be a simple solution.

Follow these step-by-step instructions to find out how to speed up your internet connection:

Step 1: Discover what speed your broad connection is actually producing with the guide above.

Step 2: Find out what speed you're paying your internet provider (ISP) for. You may have to phone them to get the answer to this. If you've had your broadband for some time, it may be time to upgrade.

Step 3: Check what speed is achievable in your area. This is also covered in our guide on checking your internet speed.

Step 4: Now that you know what speed you're paying for and what your hardware is capable of producing, there are a number of things you can do that are likely to make your internet run faster:

- Check that you haven't exceeded your monthly download allowance. Some ISPs cap internet speeds as a penalty for doing this.
- If possible, always use the master telephone socket for your broadband router.
- Don't use a telephone extension lead with your router. If it's unavoidable, use the shortest one yc

- Make sure that all other telephone sockets in use are fitted with microfilters. Not doing this can result in loss of internet speed and interference on the line.
- Is your computer running any unnecessary applications in the background? This can slow things down considerably, but finding out if it's happening can be a bit complicated. It might be best to ask an expert for help.
- Make sure your antivirus software is kept up to date. Viruses and adware can slow down your computer and the internet a lot.
- If you're using WiFi (wireless internet), make sure it's password protected. Otherwise you could be providing your neighbours with free WiFi!
- If you're using a laptop with a wireless connection, try using it in a different room or consider using a network cable to connect to the router instead.

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This guide is part of the 'How to…' series from Communities 2.0.
See http://clickconnectdiscover.org/how-to for more details.