

Wireless broadband, Wireless Networking, Wi-Fi, whats what?

When you hear broadband providers or your colleagues and friends talking about “wireless” they could actually be talking about two separate things:

- Wireless Networking – having a wire free computer in the house connected to a broadband connection.
- Wireless Broadband – this is a special kind of broadband package where you can use it at home, but also in certain places when you are away from home.

Let's take a look at each in turn.

Wireless Networking

Wireless networking is basically a way of linking all the computers at home or work together and letting them share an internet connection without the need to trail wires all over the place. Wireless Networks are also known as “Wi-Fi” networks.

Why should I be interested?

If the only place in the house that you use the internet is a desktop PC and it's next to a phone socket then you probably shouldn't be interested in wireless networking. Everyone else should be! The typical family nowadays has more than one computer, some will be desktops and some laptops. Wireless networking makes it easy for all these computers to share your broadband connection.

Also there are other devices that can use a wireless connection that you might not have realised such as games consoles and some mobile phones.

Is it secure?

Yes it's very secure, you set a password for your wireless network that only the computers on your network know. This stops other computers from connecting to the network and getting access. There are two types of security for wireless networks; WiFi Protected Access (WPA) and Wired Equipment Privacy (WEP). Of these WPA is the newer and more robust. We would recommend that you choose wireless equipment that can use WPA. The great thing about most wireless routers is that they come with a built in firewall that adds an extra layer of protection to all your computers. We wouldn't suggest you remove firewall software from your computers. This extra level of security is always worth having. If you don't password protect your network you may find that people with computers close to your house can connect to your broadband connection wirelessly. This can lead to you paying for bandwidth that they use – or even to the more serious issue of them downloading illegal content that could be associated with your connection! All this is easily solved by simply implementing the security we described.

Do I need a specialist broadband provider?

No, it's technically possible to setup a wireless network using any broadband provider. You may need to buy some special equipment of your own though.

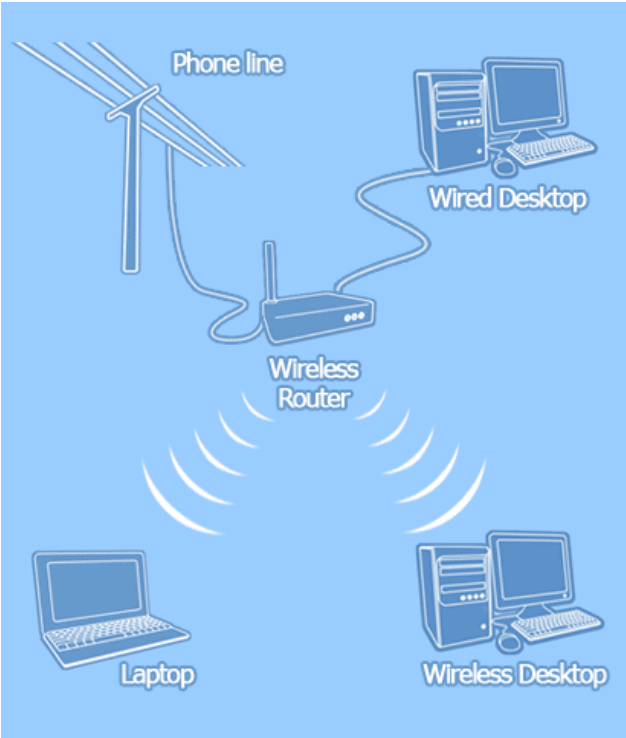
What extra equipment do I need?

You will need a wireless ADSL modem router. This is the device that you will plug into your phone line and will provide both the backbone of your wireless network and the connection to your broadband provider. Some providers give these out as standard, however it is more likely that you will need to buy your own. We recommend the [Netgear DG834G](#).

Every computer or device that you wish to be able to connect to your wireless network will need a wireless network card. Most new laptops will have a built in wireless network card. Any computer or device without a wireless network card or USB adapter will need one installing. This isn't that difficult and they are reasonably cheap to buy. The main thing is to make sure that they are compatible with your wireless ADSL modem router. For compatibility with the [Netgear DG834G](#) we recommend the [Netgear RangeMax USB Adapter WPN111](#) for desktops and the [Netgear RangeMax WN511B](#) for laptops.

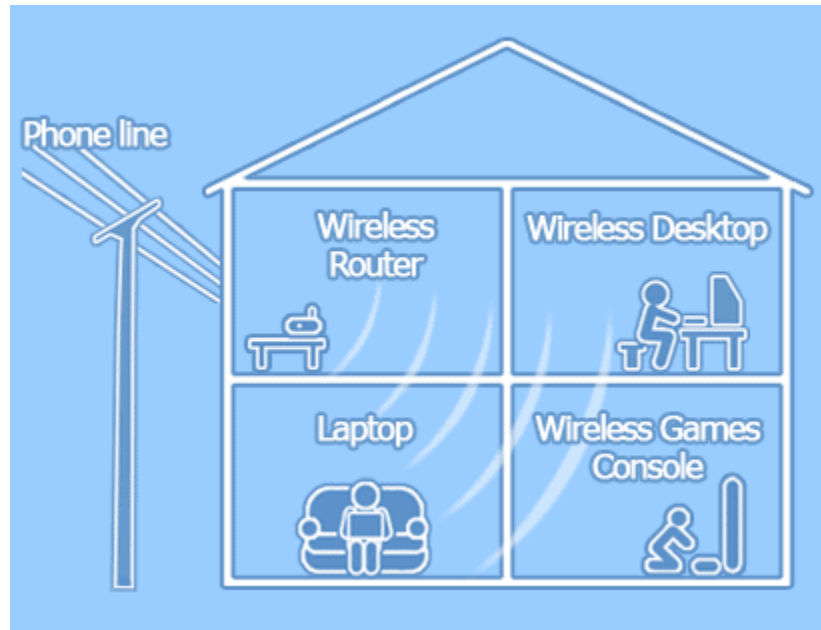
How does a wireless network look?

The diagram below shows how the wireless network will look:



You can see the broadband connection comes in on your telephone line and is accessed by the wireless router. The router then turns the internet connection wireless so that the computers in the house with wireless network cards can access the broadband connection. The computer without a wireless card can still connect to the internet by plugging directly into the router. It really is as simple as that!

The following diagram shows the wireless network setup in a typical family home:



You can see that it gives everyone the freedom to use the internet as and when they need. No more arguments over who gets to use the connection and when!

What if I want to keep some computers wired instead of wireless?

Don't worry, that's perfectly possible as most wireless ADSL modem routers come with wired network sockets as well so you can use both wired and wireless equipment.

Are there any potential downsides?

So you have liberated yourself of wires, are there any catches? Well there can be; the wireless network has a range, and this range is affected by obstacles such as thick walls. Most houses won't notice this at all, but if you live in a large house or an old house with very thick walls you may find that you have dead spots in the house. The best way of solving this is to experiment with where you place your wireless router, the higher up in the house and more centrally located the better it will be, you can also try buying larger aerials for your router as these will also boost its range. If you still have dead spots you can install more wireless access points. These act as bridges between the router and the dead zones. Wireless access can be slightly slower than wired access, however it is barely noticeable at all, you are only likely to notice if you play fast paced action games. The vast majority of people will not notice either a problem with dead spots or with speed.

Are there any health implications?

Some people may be concerned about the health implications of a wireless network, and there have been occasions for the safety of wireless to be questioned in the press. These have so far been found to be baseless and the consensus in the scientific and engineering community is that wireless broadband is perfectly safe.

Wireless Broadband

Wireless broadband in its latest sense is where providers give you the standard access to the internet over your phone line at home and then also give you access out of the house at special “Wi-Fi” hotspots. These deals are not common at the moment, with only a few of the larger providers offering them, most notably [BT Broadband](#) with their Openzone offering.

Whats a Wi-Fi hotspot?

A “hotspot” is very simply just a public area that has a wireless network like the one you have at home. The only difference is that it is usually setup to give access to certain subscribers.

How common are these hotspots?

There are lots of hotspots all over the country, as you'd imagine they are more common in cities and at locations where large numbers of people are likely to be; places like airports, train stations, motorway service stations and hotels. However you also will find them in more provincial places in the odd hotel or pub.

Is it worth getting a deal just for the hotspots?

If you are regularly on the move, need internet access and are in areas with hotspots then it can be worth it both financially and for convenience. However most hotspots will let you subscribe for short periods (such as an hour) so if it's rare that you need to use them then just connecting to them on a pay-as-you-go basis will probably work out to be more convenient.



Broadband Wireless Guide

And Finally

Wireless broadband is quite simply broadband without wires.

Remember that any broadband connection can be made wireless by setting up a [wireless network](#).

Make sure that you have the right [extra equipment](#) or take advantage of some of the latest broadband deals that give some of this equipment away for free, three providers we have on broadband.co.uk at the moment that offer free wireless equipment when signing up are:

- [BT Broadband](#)
- [AOL Broadband](#)
- [Pipex Broadband](#)

Don't forget to [secure your wireless broadband](#), to keep yourself safe from prying eyes.

For the really mobile user then consider a deal that lets you access [wi-fi hotspots](#) when you are away from home.

Remember at broadband.co.uk we can help you find wireless broadband deals using our [broadband availability checker](#), happy deal hunting!