

## You're in a WiFi hotspot!

Log in once to enjoy FREE WiFi* at Airedale

1. Choose BT WiFi
2. Open your browser 3. Follow the instructions

## Computer networks

Just about everywhere I go I can get an option to connect to a wi-fi network.
But how does that work? And what happens when I do?

Now you can
GET CONNECTED

Welcome to the Publix Wi-Fi Network.
Enjoy free Internet at this Publix location. Just review the Publix Wi-Fi Terms of Service, then, click the "Go!" button to enter the network.


By clicking "Go!" I certify that I agree to the Terms of Service for the Publix Wi-Fi Network.

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WHERESHOPPING IS A PLEASURE


## Computer networks

Computer networks are used to link computing devices together.

These devices might be:

- desktop or laptop computers
- mobile phones or tablets
- printers
- routers
- games consoles
- even things like central heating systems


## Computer networks

There are lots of good reasons for using networks.

For example: at school you can get your files on any computer and can send a document for printing from any network machine. This makes it a lot easier to do your work.
But they cost money and can be tricky to get working. And there are security issues.

## Computer networks

Networks can be wired. This means connecting a device to the network using a cable or some kind

These are often used in offices, schools, hospitals etc...
The connection speed is usually quicker - you might use it for playing online games to speed up your connection, for example. But it requires wires which limits where you can take a device, The wires get in the way unless they are put into walls or trunking. Setting up a wired network properly is usually quite expensive.

Wired networks and wi-fi are called Local Area Networks because they operate in a fairly small area.

## Computer networks

Wireless networks need a base station (usually a router). This transmits a signal on a particular frequency that wi-fi enabled devices can pick up.

Wi-fi is convenient - you can move around with it and don't need lots of wires. But it's slow and the connection gets weaker the further away from the router or if there are thick walls in the way. And the more people who connect to a wi-fi network the slower the connection speed gets.

It's important to make sure your router is away from devices like microwave ovens as they can interfere with the signal and stop devices from picking up the signal as well.

## Computer networks

Bluetooth is a type of wireless connection. We use it for connecting headphones, speakers or smart watches to other devices. It is used for apps like AirDrop that lets you transfer photos between devices.
Usually only one or two people can connect to a Bluetooth network. They are called Personal Area Networks.

Bluetooth works over a shorter distance and is just used to connect devices together. It still requires a wi-fi or wired connection to connect to the internet.

## Computer networks

As well as using wi-fi or a wired network, you can connect to the internet using the mobile phone network. This is called the Global System for Mobile communication network - the GSM network.

This is the same network that you use to send texts or make mobile phone calls. Data can be sent using 3G, 4G or 5G networks - 5G is quickest. The data is sent using the cell towers that give you a mobile phone signal.

Data can be expensive and it can be slow - this is because of the distance between cell towers and the number of people using the network. And you might be in an area that only has 3G coverage.

