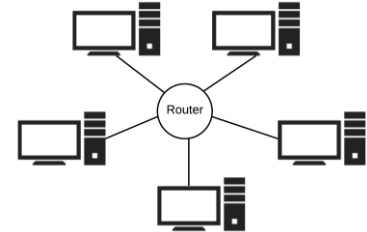
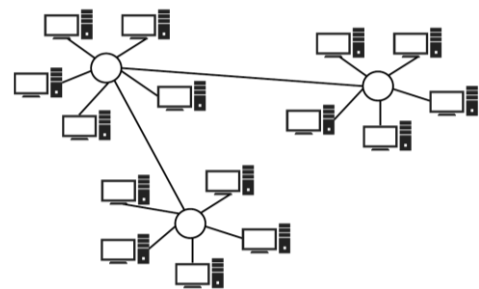


There are a number of different types of network based on their size and who can access them.

**LAN – Local area network** – These networks are all located on **one site**. They are **administered and owned by one person or organisation**. It may be a business, school or your home. Services are provided for the use of its users, who need to be within the LAN to access them. It is possible for a LAN to go across a number of buildings, such as in a school with different buildings on one site. The organisation will normally own all of the network hardware.



**WAN – Wide area network** – If a school or company had buildings in different locations in the country then these would each have a LAN. If each of the LANs is joined together then they form a WAN. While the organisation will normally own the internal network hardware, they will usually be using a **public network** to connect each of the separate branches. The biggest WAN in the world is the **Internet**. This is a system of interconnected computer networks.



**PAN – Personal area network** – These networks are used to connect devices that are up to a few meters apart. They are used to connect personal devices together to form a very small network, often with only two devices. Bluetooth allows devices to be connected together using radio waves. For instance, a **Smartphone** could be connected to a **tablet** computer via Bluetooth. A smartphone could connect to a car stereo to play music or make hands free phone calls. A **Bluetooth PAN** is known as a **piconet** and allows up to eight devices to be connected together.

**Wired network** – A wired network makes use of a physical wire to connect computers to the network. This has the disadvantage that wires have to be laid into the ground, walls or ceiling and connected computers cannot be easily moved. Wired connections are normally faster than wireless ones.

**Wireless network** – A wireless network connects computers to the network via **electromagnetic radiation**. This is normally using **microwaves** and no wire is required. Smartphones and tablets connect to the Internet via wireless networks using either Wi-Fi or other standards such as 3G or 4G.

A **server** is a system on a network that provides a **service** to **client** computers. For instance, a website will be hosted on a web server. This service will then be provided to hundreds (or more) of client computers on the Internet.

