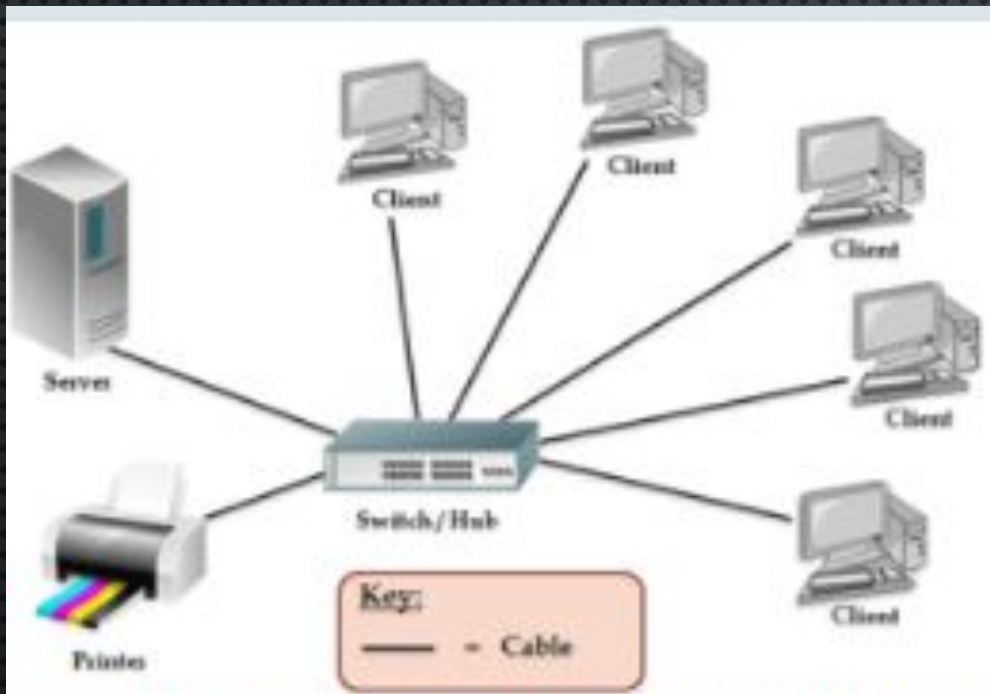


# TYPE OF NETWORKS



# THERE ARE DIFFERENT TYPES OF COMPUTER NETWORKS AND THEY ALL HAVE THEIR ADVANTAGES AND DISADVANTAGES.



A LAN consists of several computers connected together in order to share resources.



The internet is the world's largest WAN. It is millions of computers and devices linked together all over the world.



# LOCAL AREA NETWORK

- # Local area networks (**or LAN's**) are usually located in a **single room** or **small building**.

LAN's are computer networks that are **confined** to **small areas**.

- # An example of a LAN would be a **school network**. The computers on the network would be confined to a classroom or the school.
- # LAN's are **private** and can only be accessed by people in the room or the building.

**For example:**

A school network is only used by students who attend the school.

- # A typical LAN would consist of **several computers** that are **connected** to each other and can share resources such as **printers** and **scanners**.
- # Computers and devices on a LAN are connected using **cables**.



## Advantages and disadvantages of LAN's:

Advantages of LAN's	Disadvantages of LAN's
<p><b>Saves money</b> as each computer on the LAN can share resources.</p> <p>(For example - you only need to buy one printer because it can be shared between all the computers on the network)</p>	<p><b>Viruses</b> can <b>spread</b> around LAN's very <b>quickly</b>.</p> <p>(This is because the computers are all joined together - if one computer gets infected, the other are at risk)</p>
<p>Files and data can be <b>shared</b> easily.</p> <p>(Like the shared drive on a school network)</p>	<p><b>Security</b> can be an <b>issue</b>.</p> <p>(If one computer is hacked into, the other computers on the network can also be accessed)</p>
<p>Files and data can be <b>accessed</b> from <b>any computer</b> on the network.</p> <p>(For example - it doesn't matter which computer in the school you log onto, you can access your work files)</p>	<p>The network can become <b>unusable</b> if the main <b>server</b> computer <b>breaks down</b>.</p> <p>(You won't be able to log onto any of the client computers on the network)</p>
<p>Data (like <b>emails</b>) can be sent around a LAN <b>very fast</b>.</p> <p>(The cables that connect the computers can handle very fast data transfer)</p>	<p><b>Slow</b> internet connections.</p> <p>(All of the computers on the network share the same internet connection. This can make it slow for users)</p>
<p>LAN's can be <b>monitored</b> easily.</p> <p>(Network managers can check people's internet usage or change passwords etc)</p>	<p>Initial <b>cost</b> of installing the LAN is <b>high</b>.</p> <p>(Buying cables and equipment etc)</p>



# WIDE AREA NETWORK

- # Wide area networks are made up of **computers** and **devices** that are connected over a **large geographical area**.

The **internet** is the world's **largest WAN**.

The internet is just **millions of computers** all over the world that have been connected together so they can **share data**.

- # WAN's are created by **connecting** lots of **LAN's** and individual **computers** together.

Every time you switch on your **Wi-Fi connection** or access **mobile data** (on your phone), you are connecting your device or computer to a WAN.

- # Computers and devices can connect to a WAN using **telephone lines**, **fibre-optic cables** and **satellite signals**.

- # In order to connect your computer to a WAN you also need a **router** or a **modem**.

Routers and modems allow your computer to **send/receive data to/from** other computers on the WAN.



# WIDE AREA NETWORK -

## Advantages and disadvantages of WAN's:

Advantages of WAN's	Disadvantages of WAN's
<p>Computers can be <b>connected</b> over <b>wide areas</b>.</p> <p>(Across cities or even continents)</p>	<p><b>Security</b> can be an <b>issue</b> as anyone with access to the internet can potentially access any of the computers on the network.</p> <p>(Computers on the network need to be secured with a firewall and important files should be encrypted)</p>
<p><b>Files</b> and <b>data</b> can be <b>shared</b> over a <b>large area</b>.</p>	<p>It's very <b>easy</b> to accidentally <b>download viruses</b> from a WAN onto your computer.</p> <p>(You need to make sure that your computer is protected with up-to-date anti-virus)</p>
<p>People can use their computers/devices to <b>communicate</b> very quickly, over large areas.</p> <p>(Sending emails, discussion forums, video conferencing etc.)</p>	<p>Data is <b>transferred</b> across a WAN at a much <b>slower rate</b> than it is across a LAN.</p> <p>(Download speeds are limited)</p>



# WIDE AREA NETWORK -

**E-Commerce** (shopping) websites can be set up and accessed by people from all over the world.

(This allows people with disabilities to purchase items online and have them delivered to their door)

Computers and devices can be used **anywhere** in the building.

(As long as they are in range of the network's router)

**Monitoring** a WAN can be **difficult** because they have so many computers connected to them.

(This means that inappropriate content may be uploaded)