

## Key Terms (Networks)

<b>Network</b>	A group of <b>devices</b> connected together, either wirelessly or with a network cable.
<b>Protocol</b>	A set of rules.
<b>Network cable</b>	Used to connect different devices together. They are often made up of a number of wires.
<b>Hub</b>	Connects a number of computers together. Ports allow cables to be plugged in from each connected computer.
<b>Server</b>	A powerful computer which provides services to a network.
<b>Router</b>	Used to connect two separate networks together across the Internet.
<b>Wired</b>	Wired networks send data along cables.
<b>Wireless</b>	Wireless networks send data through the air using radio waves.
<b>3G /4G /5G</b>	Wireless communications standards designed to provide different speeds for mobile devices, such as smartphones, tablets, and wireless hotspots.
<b>Wi-Fi</b>	A facility allowing computers, smartphones, or other devices to connect to the Internet or communicate with one another wirelessly within a particular area.
<b>Bandwidth</b>	The amount of data that can be moved from one point to another in a given time.
<b>Broadband</b>	A high-capacity transmission technique using a wide range of frequencies, which enables a large number of messages to be communicated simultaneously.
<b>Data capacity</b>	How much <b>data</b> the storage type can hold, measured in <b>bits</b> .
<b>Buffering</b>	In streaming audio or video from the <b>Internet</b> , <b>buffering</b> refers to downloading a certain amount of data before starting to play the music or movie.

## What am I?



## Wired versus wireless

Advantages of a wired network	Disadvantages of a wired network
Faster connection (little to no interference)	Cables can be a trip hazard and look unpleasant
Higher bandwidth	More expensive and time-consuming to add devices, as each device needs cables
Better security	Devices are in fixed positions (no portability)
Advantages of wireless network	Disadvantages of wireless network
No trailing/trips/hazards	Lower bandwidth
It is quick and cheap to connect to new devices	Wireless connections can be weakened by walls and ceilings
Allows portability	Less Secure

## Network Protocols

Layer	Protocols in this layer cover	Protocol examples
1	Passing data (as electrical signals) over the physical network.	<b>Ethernet</b>
2	Making connections between networks and directing data.	<b>IP</b> (Internet protocol)
3	Controlling data flow e.g. checking data is sent and delivered.	<b>TCP</b> (Transmission Control Protocol)
4	Turing data into websites and other applications and vice versa.	<b>HTTP / FTP / SMTP</b>

## Part of a website address



## Web Browsers / Search Engines / Websites

<b>Browsers</b>	Google Chrome Internet Explorer Safari	
<b>Search engines</b>	Google Bing	
<b>Websites</b>	bbc.co.uk youtube.com	

## Key Terms (Internet)

<b>Internet</b>	The internet is a network of networks.
<b>Internet Protocol</b>	A set of rules governing the format of data sent over the Internet or other network.
<b>IP address</b>	A unique string of numbers separated by full stops that identifies each computer using the Internet Protocol to communicate over a network.
<b>VoIP</b>	Voice over Internet Protocol - the set of rules that makes it possible to use the Internet for telephone or videophone communication.
<b>IoT</b>	A network of <b>Internet</b> connected objects able to collect and exchange data.
<b>Spam</b>	Irrelevant or unsolicited messages sent over the Internet, typically to a large number of users, for the purposes of advertising, phishing, spreading malware, etc.
<b>WWW (World Wide Web)</b>	Part of the internet that contains websites, web pages, and the links between them.
<b>Web browser</b>	A <b>browser</b> is a software application used to locate, retrieve and display content on the World Wide <b>Web</b> , including webpages, images, video and other files. For example Chrome / Fire Fox.
<b>Web server</b>	A <i>web server</i> is a computer that runs websites. The basic objective of the <i>web server</i> is to store, process and deliver <i>web</i> pages to the users.
<b>Web page</b>	A hypertext document connected to the World Wide Web.
<b>Search engine</b>	A type of website that allows you to look up information on the World Wide Web.
<b>URL</b>	Uniform Resource Locator ( <b>URL</b> ) is another name for a web address.
<b>HTTPS</b>	Stands for Hypertext Transfer Protocol Secure. This encrypts messages between a browser and the website so the messages cannot be understood by other devices.
<b>HTTP</b>	Stands for Hypertext Transfer Protocol. Messages are sent between a browser and a website in plain text and can be read and understood by other devices.
<b>Domain Name</b>	A <b>domain name</b> is a unique <b>name</b> that identifies a <b>website</b> .