



Computing GCSE – 1.4b

J276/01 – The Internet

KEY VOCABULARY

WAN	Wide Area Network
VPN	Virtual Private Network
Client	The user machines on a network
Server	The central 'controller' machine on a network, including main data storage
Internet	A worldwide network of networks
DNS	Domain Name Server
Hosting	Storing a file on a web-server for access via the internet
Cloud	A service which is stored remotely
TCP/IP	Transmission Control Protocol / Internet Protocol. These are the standards that allows network nodes to communicate with one another on the internet
WWW	World Wide Web - Pages of content
email	Electronic mail, sent through the internet
URL	Unique Resource Location

Virtual Private Networks

VPNs are small collections of devices that act as though physically connected in a LAN, but are actually widely distributed and use the internet as their network connections.

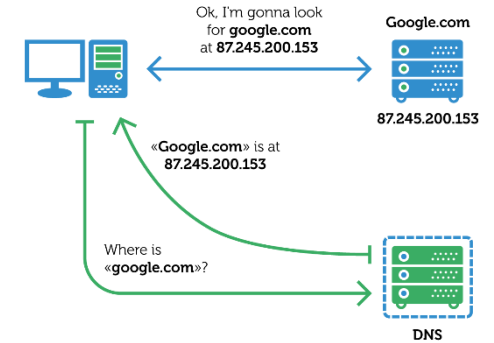
VPNs allow users to store data in a small, private area of the internet, so they can get to it at any time, using an internet connected device.

The benefits are low cost and widely available data, but users must ensure that the data is protected as, without security, their data is available to anyone connected to the internet!

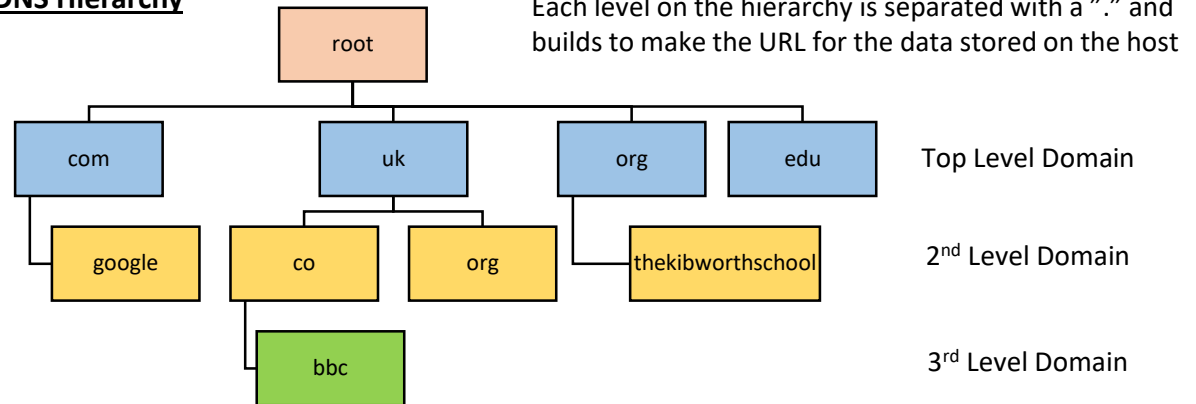
How DNS works

All webpage has an **IP Address** which is a unique reference to find that page. But 87.245.200.153 isn't as easy for users to remember as google.com

When the user types google.com into a web browser's address bar, the client sends a request to the DNS for the current location of google.com. The DNS returns the request, telling the browser to go to 87.245.200.153. The browser now connects to the google server, at the IP address given, and looks for the index.html file to start displaying the webpage.



DNS Hierarchy



The Cloud

As our devices are all connected to the internet, they start to become client nodes in a web connected "cloud" network. It's called cloud because your data, services and applications are available everywhere without wires. It's just 'there' – like a cloud. PCs like the Google Chromebook utilise the cloud to provide very cheap, very fast hardware, which just connects you to the internet. All the storage, applications and communication is done by services hosted on google's servers.

