OSI Model Glossary of terms

Application Infrastructure: The software components that custom applications rely on for their functionality. Examples include web servers, application servers and database servers.

Bridging: Combining two network segments as if they were one network. An Ethernet bridge does not use routing, but rather relies on broadcasting to communicate between the two segments.

Broadcasting: Sending packets that are designed to be received by all devices on a subnet. Broadcasting is limited to the broadcast domain, which includes only those computers able to talk to one another on a network directly, without going through a router.

CGI - Common Gateway Interface: A small script the processes data taken from the user, such as from a form application.

DDoS - Distributed Denial of Service: The most common form of attack on network devices. It overwhelms a network by monopolising its bandwidth by flooding it with information from multiple hosts thereby preventing legitimate network traffic.

DHCP - Dynamic Host Configuration Protocol: A protocol used between clients (network devices such a computers) and a DHCP server so that the client can obtain a valid IP address and other information such as default gateway, subnet mask, and DNS servers for the client to connect to the network.

DNS - Domain Name System: The system that provides information about domain names to users of the internet. A widespread distributed directory of information about the internet. Publically available domain names must be globally unique and are managed via central registries. Domain names are matched to the IP address of specific hosts; these addresses of specific hosts; these addresses must also be globally unique.

FQDN - Fully Qualified Domain Name: A complete domain name that unambiguously refers to an address in DNS. As an example, a host named next connex at example.com will have the FQDN of nextconnex.example.com

FTP: Short for File Transfer Protocol, a method of allowing remote users and web servers to exchange files.

IP - Internet Protocol: Designates the format of data packets that are used to exchange information over the internet. IP is the protocol involved in transporting a packet of information from one computer on a network to a remote machine potentially on the other side of the world. Routers pay attention to the IP address carried in an IP packet, and perform the magic required to shift the packet hop-by-hop to its final destination.

ISDN - Integrated Services Digital Network: A digital network technology using ordinary telephone wires. ISDN is capable of delivering multiple channels of data, voice, video or fax over a single physical line. Channels on ISDN are either B (for bearer,usually 64Kbps channels that most data is transmitted on) or D (for the channel used to transmit control signals).

Latency: Network latency is an expression of how much time it takes for a packet of data to get from one designated point to another. In some environments (for example, AT&T) latency is measured by sending a packet that is returned to the sender; the round-trip time is considered the latency.

NAS - Network Access Server: The NAS takes credentials from a client wishing to connect to the network, passes them to an authentication service of some kind and then grants or denies the client access depending on the response from the authentication service.

NAT - Network Address Translation: A method used to allow a single public IP address to represent an entire private subnet, and to run public servers with private non-routable addresses.

NIC - Network Interface Card or Controller: The hardware that allows a computer to connect to a network. It may consist of a card that plugs into a computer motherboard, it could connect via a USB port, or it could be integrated into the motherboard itself. It provides the physical connection that allows the computer to talk the rest of the network.

NTP - Network Time Protocol: A protocol designed to allow computers on a network to synchronize their clocks, and taking into account the variable latency on a packet switched network.

PPP - Point-to-Point Protocol: Used to provide a layer 2 (data link) between two nodes over a serial modem connection to allow TCP/IP to function and give a computer internet access.

Routing: IP Routing is the process of path selection for packets travelling through an IP-based network. Compared to bridging, which automatically discovers the route that network traffic takes between multiple network segments and does so via OSI Layer 2 (the data link layer), routing relies upon a coordinated OSI Layer 3 (network layer) network, and uses the IP addresses of packets to decide where to forward them.

SQL - Standard Query Language: A standard protocol used to request information from databases. Servers that can handle SQL are known as SQL servers.

TCP - Transmission Control Protocol: Allows applications to create connections that, once established, the applications can stream data across. TCP stacks in an operating system to the hard work of splitting the stream of data into segments with a sequence number and sending them out over an IP-based network.

VPN - Virtual Private Network: A private communications network usually used within a company or bys several companies to communicate over a public network.

OSI MODEL