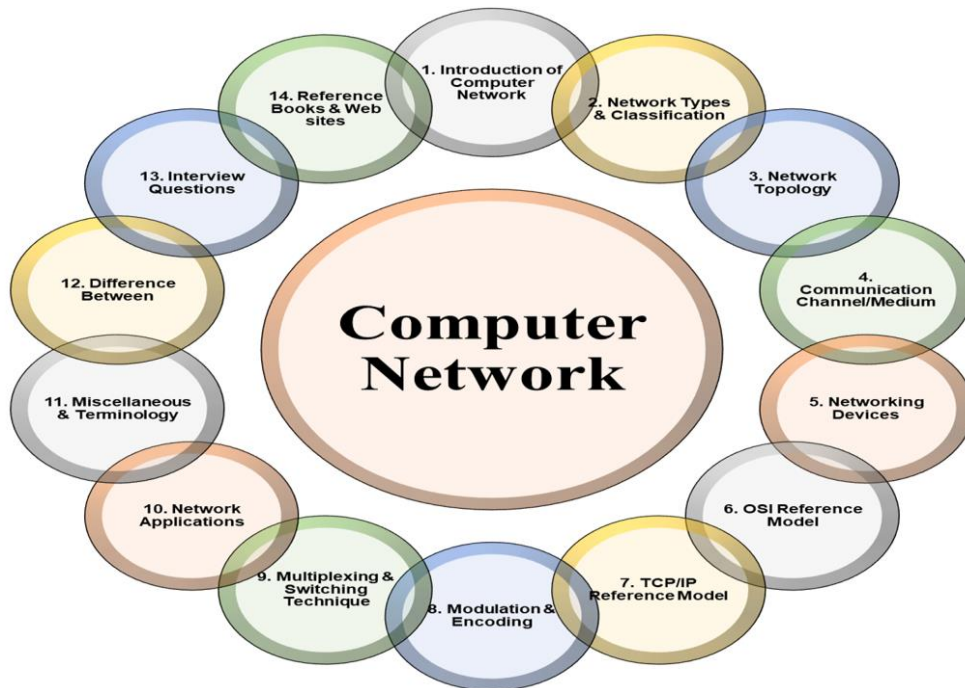# NETWORK TERMINOLOGIES

Here are some common network terminologies along with explanations:

1. IP Address (Internet Protocol Address):

An IP address is a unique numerical label assigned to each device connected to a computer network that uses the Internet Protocol for communication. It serves two main purposes: identifying the host or network interface and providing the location of the host in the network.

2. Router:

A router is a device that forwards data packets between computer networks. It connects different networks together and routes traffic between them, ensuring that data packets travel efficiently.


3. Firewall:

A firewall is a network security device or software that monitors and controls incoming and outgoing network traffic based on predetermined security rules. It acts as a barrier between a trusted internal network and untrusted external networks, such as the internet.
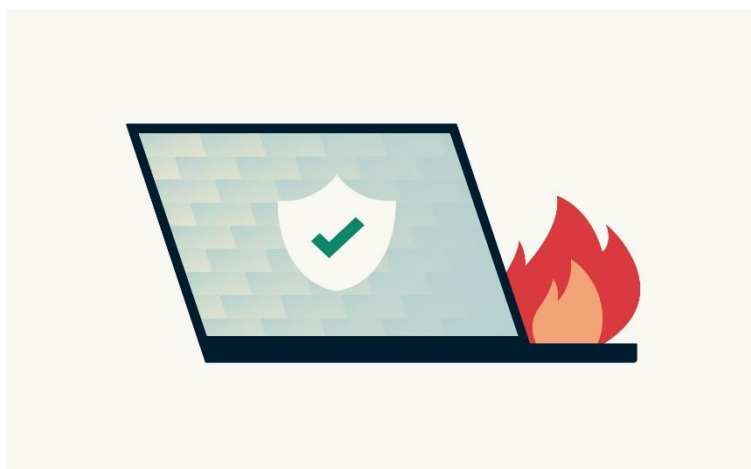
4. Switch:

A switch is a networking device that connects devices on a Local Area Network (LAN). Unlike a hub, which simply broadcasts data to all devices connected to it, a switch intelligently forwards data only to the device for which it is intended, enhancing network efficiency.

Normally Open (NO) SPST

Normally Closed (NC) SPST

Single pole, double throw (SPDT)
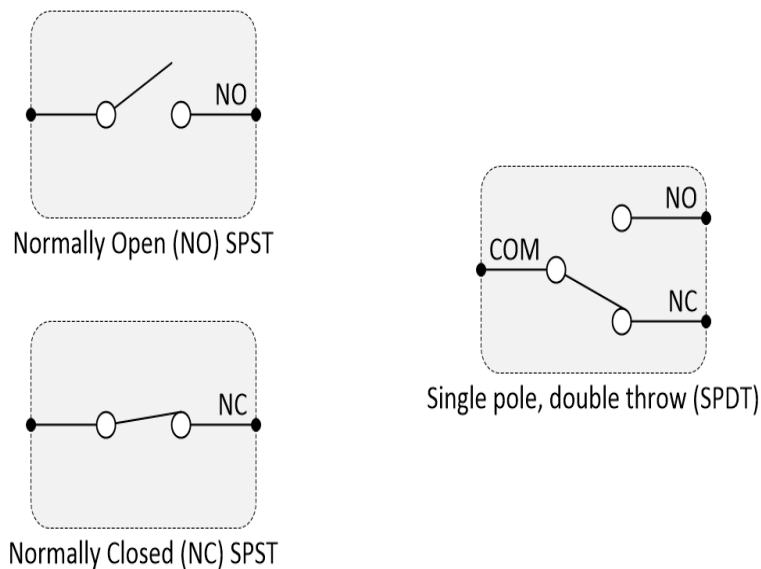
5. DNS (Domain Name System):

DNS is a decentralized naming system for computers, services, or other resources connected to the Internet or a private network. It translates domain names (e.g., www.example.com) into IP addresses that computers use to identify each other on the network.

Complete DNS Lookup and Webpage Query
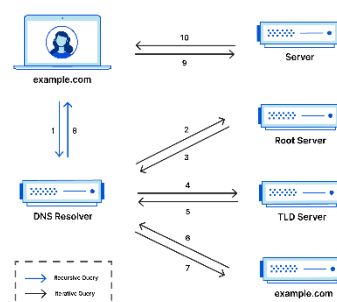
6. LAN (Local Area Network):

A LAN is a network that connects computers and devices within a limited geographical area, such as a home, office building, or school. LANs are typically used for sharing resources like files, printers, and internet connections among multiple users.


7. WAN (Wide Area Network):

A WAN is a network that spans a large geographical area, typically a country, continent, or even globally. WANs connect multiple LANs and other types of networks together, allowing remote communication and data exchange.
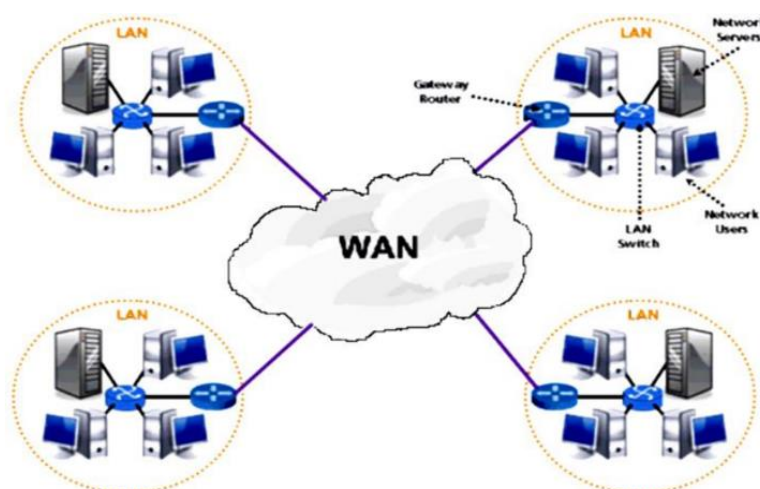
8. VPN (Virtual Private Network):

A VPN extends a private network across a public network, such as the internet. It enables users to send and receive data securely over public networks as if their devices were directly connected to a private network, ensuring privacy and confidentiality.
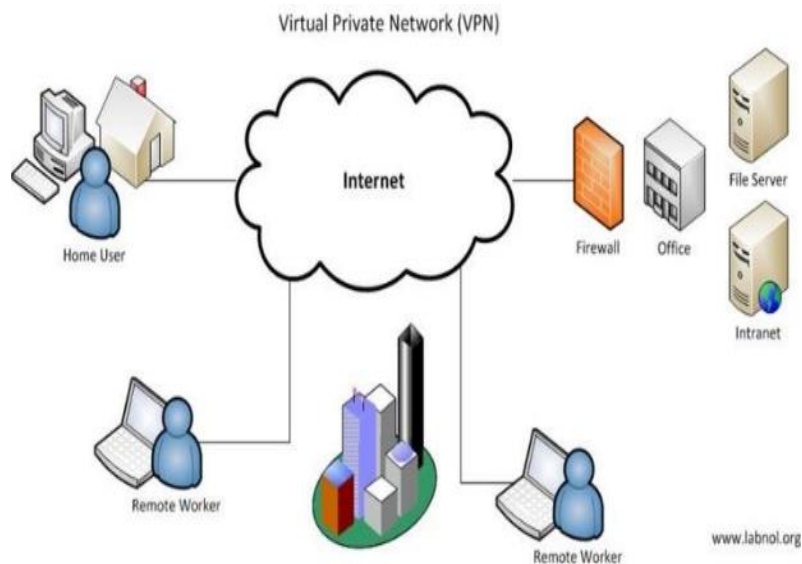
9. Bandwidth:

Bandwidth refers to the maximum data transfer rate of a network or internet connection. It determines how much data can be transmitted in a given amount of time and is usually measured in bits per second (bps), kilobits per second (kbps), or megabits per second (Mbps).
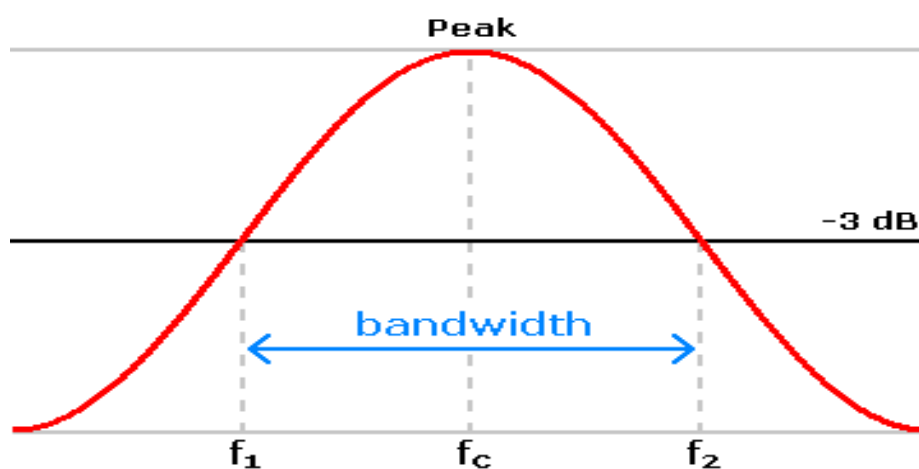
10. Protocol:

In networking, a protocol refers to a set of rules and conventions that govern the communication between devices on a network. Protocols define how data is formatted, transmitted, received, and interpreted, ensuring compatibility and efficient data exchange.