



NETWORKING IN DETAILS

A **Computer Network** is collection of computer device that are connected in various ways to communicate and share resources.

The connection between computer in a network are made using wires and cables and some connections are wireless like radio waves.

Node or Host – Any computer device on a network is Host or Node.

Data Transfer Rate – The speed at which data is transmitted from one device to another within the network.

Client/Server Model - The client/server model is a network architecture where a client requests a services from a server, & the server provides the requested resources/services.

Type of Server

File Server - A file server stores files and allows clients to access them on a same network to the multiple users.

Web Server - A web server is a hosted website on the Internet that delivers web pages to users' browser using protocols like HTTP or HTTPS.

Fundamental Networking Components

IP Address - An IP address is the unique number assigned to every network device in an Internet Protocol (IP) network.

Device / Nodes - A node is a network connection point that can receive, send, create or store data.

Routers - A router is a physical or virtual device that sends data “packets” between networks.

Switches - A switch is a device that connects network devices and manages node-to-node communication across a network.

Ports - A port indicates a specific connection between network devices, with each port identified by a number.

Gateways - Gateways are hardware devices that facilitate communication between two different networks.

The **networked devices** use a system of rules, called communications protocols, to transmit information over physical or wireless technologies.