

What is a Computer Network?

A computer network is a system in which multiple computers are connected to each other to share information and resources.



Characteristics of a computer network

- Share Resources from one computer to another
- Create files and store them in one computer, access those files from the other computers connected over the network
- Connect a printer, scanner, or a fax machine to one computer within the network and let other computers of the network use the machines available over network.

Following is the list of hardware's required to setup a computer network.

- Network Cables
- Distributors
- Routers
- Internal Network Cards
- External Network Cards

Network Cables

Network cables are used to connect computers. The most commonly used cable is Category 5 cable RJ-45.





Distributors

A computer can be connected to another one via a serial port but if we need to connect many computers to produce a network, this serial connection will not work. The solution is to use a central body to which other computers, printers, scanners etc. can be connected and then this body will manage or distribute network traffic.



Router

A router is a type of device which acts as the central point among computers and other devices that are part of a network. A router is equipped with holes called ports and computers and other devices are connected to a router using network cables. Now-a-days router comes in wireless modes using which computers can be connected without any physical cable.



Network Card

Network card is a necessary component of a computer without which a computer cannot be connected over a network. It is also known as network adapter or Network Interface Card *NIC*. Most branded computers have network card pre-installed. Network cards are of two types : Internal and External Network Cards.

Internal Network Cards

Motherboard has a slot for internal network card where it is to be inserted. Internal network cards are of two types in which first type uses Peripheral Component Interconnect *PCI* connection while the second type uses Industry Standard Architecture *ISA*. Network cables are required to provide network access.



External Network Cards

External network cards come in two flavours : Wireless and USB based. Wireless network card need to be inserted into the motherboard but no network cable is required to connect to network



Universal Serial Bus *USB*

USB card are easy to use and connect via USB port. Computers automatically detect USB card and can install the drivers required to support the USB network card automatically.





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