

NETWORK DEVICES

HUB

- Its main function is to amplify the signal and broadcast them to all the devices connected to it.
- Hence every device picks the message but only the destined device process the data packet and all other computers just discard them.

SWITCH

- A switch is a device that can be used in all places where a hub is used.
- However it is much better than a hub because a switch has a switching table within it.
- The switching table stores the address of every computer or device connected to it and sends the data only to the destined device rather than broadcast the data to all devices connected to it.

Amplifier

- It is used to increase strength of analog signal.
- Without an amplifier a signal can span a limited distance due to attenuation.
- When a signal, travels through a medium, it loses some of its energy in overcoming the resistance of the medium.
- To achieve longer distances, the analog transmission system includes amplifiers that boost the energy in the signal.
- Unfortunately, the amplifier also boosts the noise components.

REPEATER

- :Repeaters are electronic devices that regenerate the incoming digital signal.
- A repeater receives the digital signal, recovers the pattern of 1s and 0s, and retransmits a new signal, thereby overcoming the attenuation
- Without a repeater the data can only span a limited distance before the quality of the signal degrades.
- Repeater attempts to preserve signal integrity by removing unwanted noise from the incoming signal restoring the weak/distorted signal, thereby extending distance over which data can safely travel.

BRIDGE

- A bridge is a device that connects two or more LANs.
- When a bridge receives data from one LAN, it first regenerates(or amplifies) the signal and then forwards the data to other LAN

ROUTER

- A router is an intelligent device that routes a packet to destination computer.
- It is basically used to connect two logically and physically different networks, two LANs, two WANs and LAN with WAN.
- CISCO routers are most widely used routers.

GATEWAY

- It is used to connect two dissimilar network

NETWORK INTERFACE CARD:(LAN CARD)

- It supports Ethernet or Token ring.
- NIC is inbuilt with the computer and it must be installed.