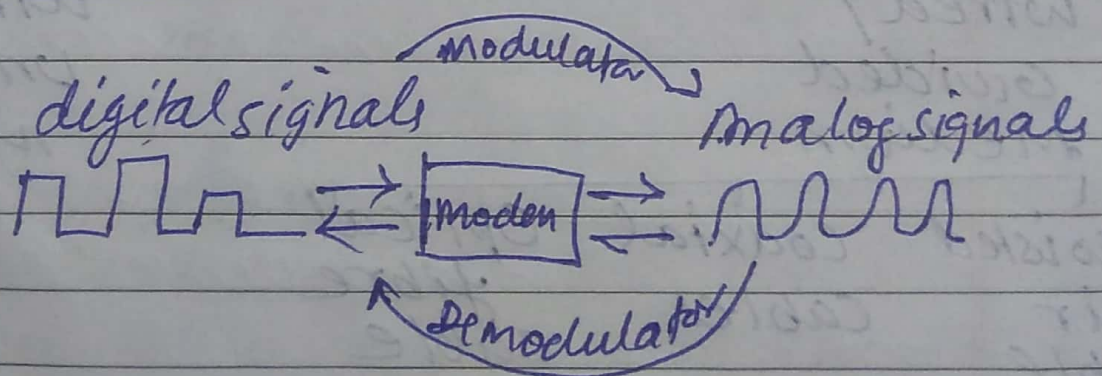


Networking Components.

1. NOS - Network Operating System.
2. NIC - Network Interface Card
MAC - Media Access Control.
3. Networking Cable - modern Ethernet networks use twisted pair cable, containing eight wires, arranged in a special order, and an RJ-45 connector is crimped at both the ends of the cable.
4. Modem (modulator - Demodulator)

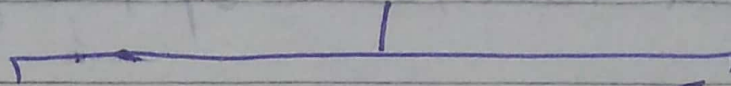


converts the digital signals of a computer into analog signals.

Installed on the PCI - Peripheral Component Interconnect slot found on the motherboard.

5

Hub



Active Hub

Passive Hub.

- amplifies the signal received before broadcasting it further.

Serves as a physical connection point for computer devices.

6. Router - Network device which routes the information around the network, used to connect one network with the networks, checks for the destination and use the best route.

Network Architectures

Peer-to-Peer

Client/Server

- | | |
|---|---|
| 1. All computers are equal in capabilities. | Server - more powerful than other. |
| 2. Each computer can request & also provide services to the other computer. | <u>server</u> provides resources.
<u>client</u> - request resources from the server. |
| 3. Less expensive and easy to more implement. | More expensive and not so easy to implement. |
| 4. security is major concern. | Easy to take measures to secure the system. |
| 5. Implemented for a small number of computers, in a limited area. | • email |

Parameter	PAN	LAN	MAN	WAN
① Area Covered	10 meters	within 1 Km	within 10 Km	Large area.
② Error Rate	lowest	lowest	Moderate	Highest
③ Transmission speed.	High Speed	High Speed	moderate speed	low speed.
④ Cost	Negligible	Inexpensive	moderately expensive equipment.	Expensive
⑤ Media Type.	wire, wireless	Twisted pair	Twisted pair & fibre optic cables	Fiber optic, radio waves & satellite
⑥ Number of computer	Less one or more computer.	Less 2 to	Large	Largest
⑦ Maintenance & designing	Very easy	Very easy to design & maintain	Difficult to design and maintain	Very difficult to design and maintain
⑧ Example	inside Office or Residence	College campus office.	entire city	Internet