

NETWORK

• CONNECTION BETWEEN THE SYSTEM FOR THE PURPOSE OF COMMUNICATION AND SHARING RESOURCES LIKE DATA AND DEVICES (like printer, scanners) etc

Types of Network

• LAN (LOCAL AREA NETWORK)

computer network that interconnects computers within a limited area such as residence, school, offices etc

MAN (METROPOLITAN AREA NETWORK)

- computer network that connects computers within a metropolitan area, which could be a single large city, multiple cities and towns,
- A MAN is larger than a local area network (LAN) but smaller than a wide area network (WAN).

WAN (WIDE AREA NETWORK)

• collection of LAN OR other network that communicate with one another

It is also called as Network of Networks

NETWORK DEVICES

- HUB
- SWITCH
- ROUTER

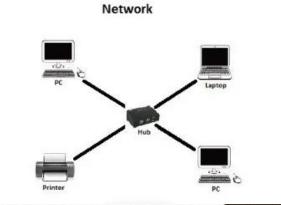
HUB

• HUB IS A LAYER1 DEVICE

PHYSICAL

- IT WILL BROADCAST MESSEGES
- IT IS DUMP DEVICE

UNICAST MULTICAST BROADCAST



IT IS LIKE EXTENSION BOARD

SWITCH

- LAYER2 DEVICE
- DATA LINK LAYER
- IT CONNECTS 2 OR MORE COMPUTERS

Produce 2

- ALSO CALLED AS INTELLIGNET DEVICE
- SWITCH CAN DECIDE WHICH COMPUTER IS THE MESSAGE INTENDED FOR AND SEND MESSAGE DIRECTCLY TO RIGHT COMPUTER
- IT WILL UNICAST MESSGES INSTEAD OF BRAODCASTING

ROUTER

- A router is a device that connects two or more networks or subnetworks.
- LAYER3 device NETWORK
- Calculate best route sending packets from source to destination

IP ADDRESS

- IP STANDS FOR INTERNET PROTOCOL
- IT IS A LOGICAL ADDRESS
- a unique address that identifies a device on the internet or a local network
- ASSIGNED BY ISP

INTERNET SERVICES PROVIDER

IP ADDRESS TYPES

- PUBLIC IP ADDRESS
- PRIVATE IP ADDRESS

PRIVATE IP

- IT IS NON ROUTABLE IP
- IT IS FREE OF COST

PRIVATE IP RANGES

Class A: 10.0. 0.0 — 10.255. 255.255.

Class B: 172.16. 0.0 — 172.31. 255.255.

Class C: 192.168. 0.0 — 192.168. 255.255.

PUBLIC IP

- IT IS ROUTABLE IP'S
- IT IS PAYABLE

CLASSES OF PUBLIC IP

| Class | 1st octet of IP address |
|-------|----------------------------|
| A | 1 - 126 |
| В | 128 - 191 |
| С | 192 - 223 |
| D | 224 - 239 |
| E | 240 - 254 |

ASSIGNMENT

ADVANTAGES AND DISADVANTAGES OF

LAN

WAN

MAN

- DIFFRENCE BETWEEN PRIVATE AND PUBLIC IP
- HOW TO CHECK THE IP ADDRESS OF SYSTEM (try to check your system ip)

THANK YOU