Course Name : O Level(B3-Ist sem.)   Subject : ITT&NB

Topic :   Computer Network types   Date   : 11-05-20

                 (Part-1)

Computer Network Types

A computer network is a group of computers linked to each other that enables the computer to communicate with another computer and share their resources, data, and applications.

A computer network can be categorized by their size. A computer network is mainly of four types:

- o   LAN(Local Area Network)
- o   PAN(Personal Area Network)
- o   MAN(Metropolitan Area Network)
- o   WAN(Wide Area Network)

LAN(Local Area Network)

- o   Local Area Network is a group of computers connected to each other in a small area such as building, office.
- o   LAN is used for connecting two or more personal computers through a communication medium such as twisted pair, coaxial cable, etc.
- o   It is less costly as it is built with inexpensive hardware such as hubs, network adapters, and Ethernet cables.
- o   The data is transferred at an extremely faster rate in Local Area Network.
- o   Local Area Network provides higher security.

PAN(Personal Area Network)

- o Personal Area Network is a network arranged within an individual person, typically within a range of 10 meters.
- o Personal Area Network is used for connecting the computer devices of personal use is known as Personal Area Network.
- o Thomas Zimmerman was the first research scientist to bring the idea of the Personal Area Network.
- o Personal Area Network covers an area of 30 feet.
- o Personal computer devices that are used to develop the personal area network are the laptop, mobile phones, media player and play stations.

There are two types of Personal Area Network:

- o Wired Personal Area Network
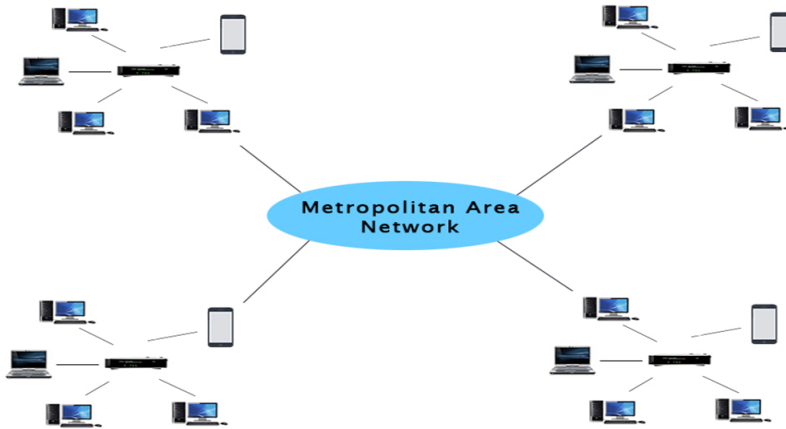- o Wireless Personal Area Network

Wireless Personal Area Network: Wireless Personal Area Network is developed by simply using wireless technologies such as WiFi, Bluetooth. It is a low range network.

Wired Personal Area Network: Wired Personal Area Network is created by using the USB.

MAN(Metropolitan Area Network)

- o A metropolitan area network is a network that covers a larger geographic area by interconnecting a different LAN to form a larger network.
- o Government agencies use MAN to connect to the citizens and private industries.
- o In MAN, various LANs are connected to each other through a telephone exchange line.

- The most widely used protocols in MAN are RS-232, Frame Relay, ATM, ISDN, OC-3, ADSL, etc.
- It has a higher range than Local Area Network(LAN).

Uses Of Metropolitan Area Network:

- MAN is used in communication between the banks in a city.
- It can be used in an Airline Reservation.
- It can be used in a college within a city.
- It can also be used for communication in the military.

Exercise:
1. Compare between LAN and MAN.