

TYPES OF NETWORK

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The network can be divided into geographical areas and fall into one of two major categories

- Local Area Network (LANs) • Metropolitan Area Network (MANs) • Wide Area Network (WANs)
- Wireless Networks

1.3.1 Local Area Network

A LAN is generally confined to a specific location, such as floor, building or some other small area. By being confined it is possible in most cases to use only one transmission medium (cabling). The technology is less expensive to implement than WAN because you are keeping all of your expenses to a small area, and generally you can obtain higher speed. They, are widely used to connect personal computers and workstations in company offices and factories to share resources.

LANs often use a transmission all the machines are attached with each other. Traditional LANs runs at speed of 10 to 100 mbps have low delay and make very few errors. Never LANs may operate at higher speed up to 100 megabytes/sec.

Metropolitan Area Network (Man)

Metropolitan Area Network is basically a bigger version of LAN and normally uses same technology. It might cover a group of nearby corporate offices or a city and might be either private or public. On other hand, MAN is network running through out a metropolitan area such as a backbone for a phone service carrier. A MAN just has one or two cables and does not contain switching elements.

Wide Area Network (WAN)

A wide area network spans a large geographical area, often a country or continent. It multiplies multiple connected LANs; that can be separated by any geographical distance. A LAN at the corporate headquarters in Indianapolis can be connected to a LAN at field office in Chicago and to another field office LAN in St. Louis to form a single Wide Area Network.

In most WANs the network contains numerous cables or telephone lines, each one connection a pair of routers. If two routers that do not share a cable nevertheless and wish to communicate, they must do it indirectly. On personal computers we are using modem to communicate indirectly with other computer.

Wireless Networks

Mobile computers such as notebook computers laptops are fastest growing segment of computer industry. Users want to connect this machine to their office LANs to see the data when they are out from the office, since the wired connection is not possible we have to use wireless networks. For e.g. on Aircraft single router will maintain a radio link with some other router on ground, changing routers as it flies along this configuration is just a traditional LAN, except that its connection to the outside world happens to be a radio link instead of a hardwired line.

Internet works

Many networks exist in world, often with different hardware and software. People connected to one network .always want to communicate with, people attached to a different one. This requires connecting together different, and frequently incompatible networks, sometimes by using machines called as gateways to make the connection and provide the necessary translation, both in terms of hardware and software. Such collection of interconnected networks is called as Internet works or Internet.

A common form of Internet is collections of LANs connected by WA are form when distinct networks are connected with each other through routers and hosts.

Check Your Progress 1.3

1) Answer in brief.

a. List different types of networks?

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b. Explain Local area network?

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c. Explain Wide area network?

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2) Fill in the blanks

1. LAN run at speed of Mbps

2. is basically a bigger version of LAN

3. Internetworks are form when no. of network connected through and

3) Match the following

1. MAN a. Wide Area Network

2. LAN b. Metropolitan area network

3. WAN c. 10 to 100 Mbps

