

TYPES OF NETWORK

Local Area Network (LAN)

The term LAN refers to a local network or a group of interconnected network that are under the same administrative control. In the early days of networking, LANS are defined as small networks that existed in a single physical location. While LANs can be a single network installed in a home or small office, the definition of LAN has evolved to include interconnected local networks consisting of many hundreds of hosts, installed in multiple buildings and locations.

LANs are designed to:

Operate within a limited geographic area.
Allow Multi-access to high bandwidth media.

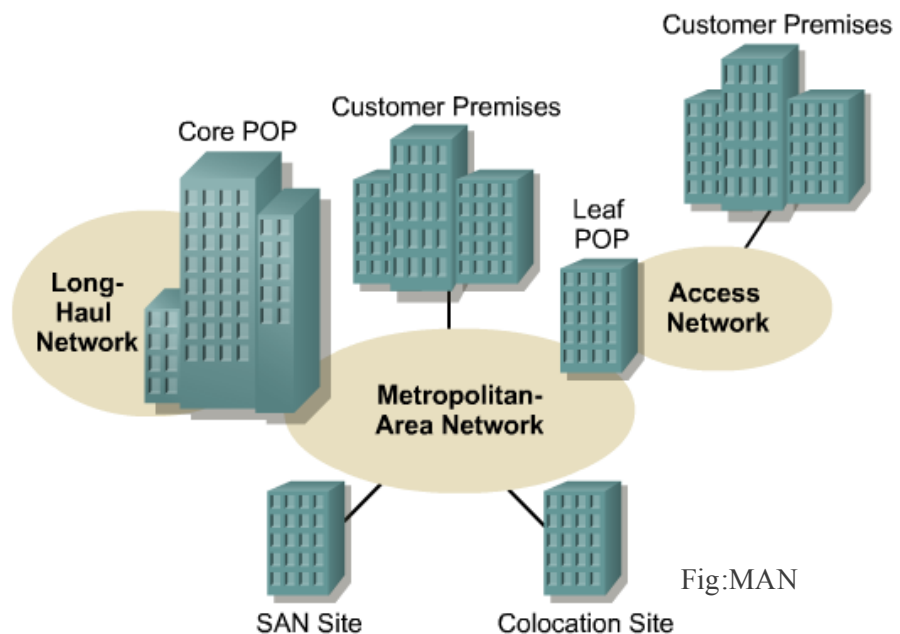
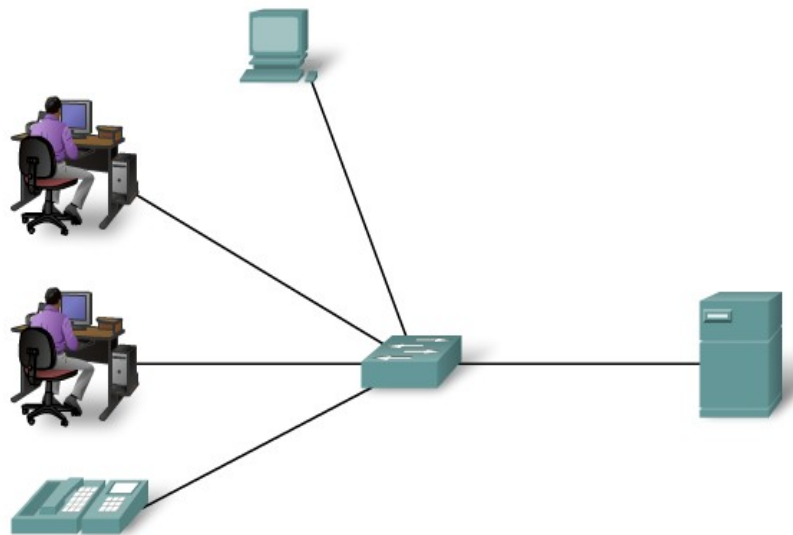
LANs consist of the following components:

- Computers
- Network interface cards
- Peripheral devices
- Networking media
- Network devices

LANs allow businesses to locally share computer files and printers efficiently and make internal communications possible. A good example of this technology is e-mail. LANs manage data, local communications, and computing equipment. Some common LAN technologies include the following:

- Ethernet
- Token Ring
- FDDI

A network serving a home, building or campus is considered a Local Area Network (LAN).



MAN:

is a network that spans a city. The network consists of various buildings interconnected via either wireless or fiber optics backbones.

A metropolitan area network (MAN) is a large computer network that usually spans a city or a large campus. A MAN

usually interconnects a number of local area networks (LANs) using a high-capacity backbone technology, such as fiber-optical links, and provides up-link services to wide area networks (or WAN) and the Internet.

WAN:

A network that spans broader geographical area than a local area network over public communication network. WANs interconnect LANs, which then provide access to computers or file servers in other locations. Because WANs connect user networks over a large geographical area, they make it possible for businesses to communicate across great distances. WANs allow computers, printers, and other devices on a LAN to be shared with distant locations. WANs provide instant communications across large geographic areas.

Collaboration software provides access to real-time information and resources and allows meetings to be held remotely. WANs have created a new class of workers called telecommuters. These people never have to leave their homes to go to work.

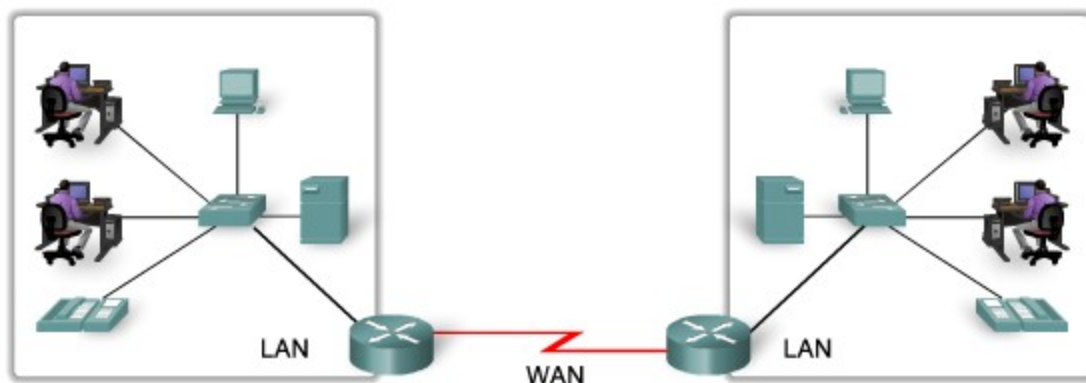
WANs are designed to do the following:

- Operate over a large and geographically separated area
- Allow users to have real-time communication capabilities with other users
- Provide full-time remote resources connected to local services
- Provide e-mail, Internet, file transfer, and e-commerce services

Some common WAN technologies include the following:

- Modems
- Integrated Services Digital Network (ISDN)
- Digital subscriber line (DSL)
- Frame Relay
- T1, E1, T3, and E3
- Synchronous Optical Network (SONET)

LANs separated by geographic distance are connected by a network known as a Wide Area Network (WAN).



LAN Vs WAN

LAN	WAN
Connects host within a relatively small geographical area. <ul style="list-style-type: none">• Same Building• Same room• Same Campus	Hosts may be widely dispersed. <ul style="list-style-type: none">• Across Campuses• Across Cities/countries/continent
Faster	Slower
Cheaper	Expensive
Under a control of single ownership.	Not under a control of a single person.
Typical Speeds: 10 Mbps to 10Gbps	Typical Speed: 64 Kbps to 8 Mbps

Source : <http://dayaramb.files.wordpress.com/2011/03/computer-network-notes-pu.pdf>