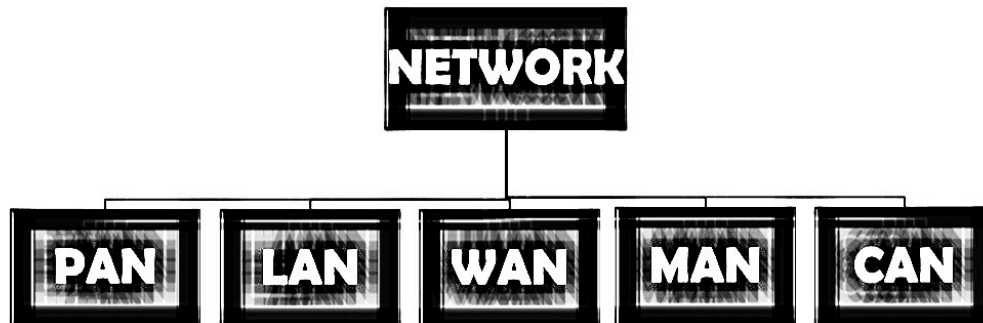

CLASSIFICATION OF AREA BY THEIR GEOGRAPHY



LOCAL AREA NETWORK(LAN)

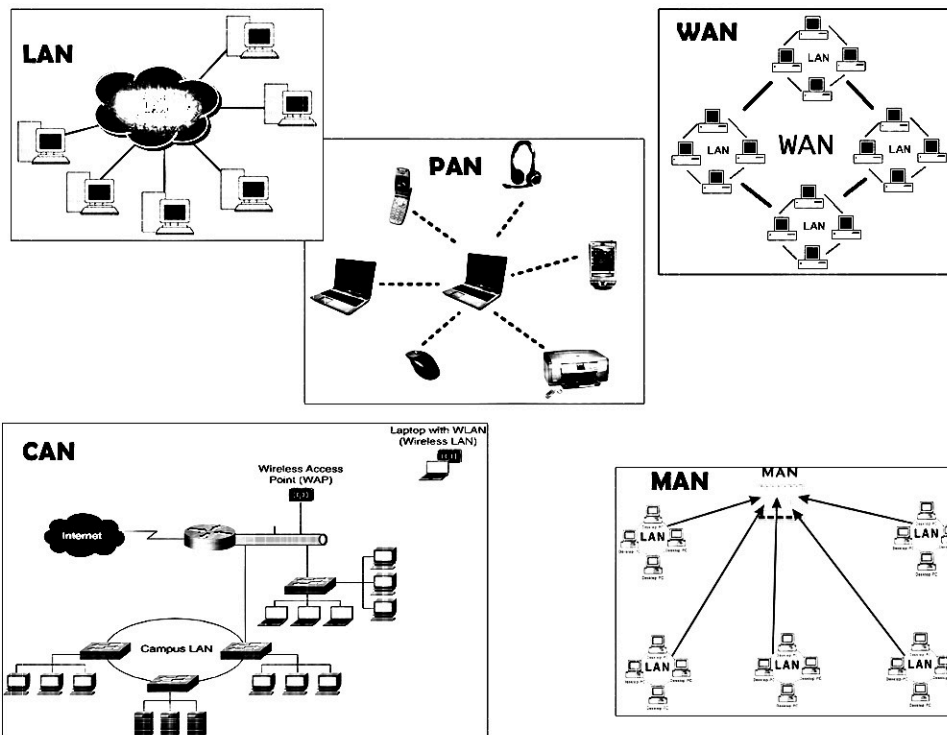
- **LAN is a network which is designed to operate over a small physical area such as an office, factory or a group of buildings.**
- **LAN's are easy to design and troubleshoot**
- **Exchange of information and sharing of resources becomes easy because of LAN.**
- **In LAN all machines are connected to a single cable.**
- **Different types of topologies such as star, tree, bus, ring, etc Can be used**
- **It is usually a privately owned network.**

WIDE AREA NETWORK(WAN)

- **When network spans over a large distance or when the computers to be connected to each other are at widely separated locations a local area network cannot be used. A wide area network(WAN) is installed.**
- **The communication between different users of WAN is established using leased telephone lines,**

METROPOLITAN AREA NETWORK(MAN)

- It is in between LAN & WAN technology that covers the entire city.
- It uses similar technology as LAN.
- It can be a single network such as cable TV network, or a measure of connecting a number of LAN's o a large network so that resources can be shared LAN to LAN as well as device to device.



DISTINGUISH BETWEEN LAN,WAN,MAN

Ownership of network	Private	Private or public	Private or public
Geographical area covered	Small	Very large	Moderate
Design and maintenance	Easy	Not easy	Not easy
Communication medium	Coaxial cable	PSTN or satellite links	Coaxial cables, PSTN, optical fibre, cables, wireless
Bandwidth	Low	High	moderate

WIDE AREA NETWORK(WAN)

- ❑ **When network spans over a large distance or when the computers to be connected to each other are at widely separated locations a local area network cannot be used. A wide area network(WAN) is installed.**
 - ❑ **The communication between different users of WAN is established using leased telephone lines, satellite links and similar channels.**
 - ❑ **It is cheaper and more efficient to use the phone network for the link.**
 - ❑ **Most WAN networks are used to transfer large blocks of data between its users.**
-

PERSONAL AREA NETWORK(PAN)

- ❑ **A personal area network is a computer network organized around an individual person.**
 - ❑ **It generally consists of a mobile computer, a cell phone or personal digital assistant. PAN enables the communication among these devices.**
 - ❑ **It can also be used for communication among personal devices themselves for connecting to a digital level network and internet.**
 - ❑ **The PANs can be constructed using wireless or cables.**
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CAMPUS AREA NETWORK(CAN)

- ❑ **The campus area network is made up of an interconnection of LAN with limited geographical area.**
- ❑ **Network equipments such as switches, routers and the transmission media i.e. optical fibre etc are almost entirely owned by the campus owner.**