

# SNS COLLEGE OF TECHNOLOGY COIMBTORE-64



**DEPARTMENT OF MANAGEMENT STUDIES** 

SOCIAL NETWORK ANALYTICS.





## **NETWORK**

• A Network is a collection of computers, servers, mainframes, network devices, peripherals, or other devices connected to allow data sharing. An example of a network is the Internet, which connects millions of people all over the world.

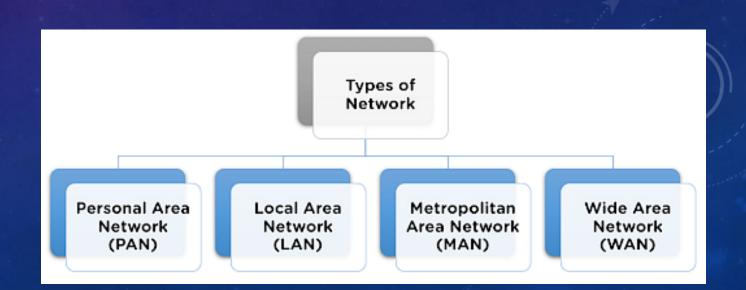








- PAN (Personal Area Network)
- LAN (Local Area Network)
- MAN (Metropolitan Area Network)
- WAN (Wide Area Network)







## PAN (PERSONAL AREA NETWORK)

- PAN is expanded as Personal Area Network is configured in a person in range of approximately ten meters and is mostly employed for connecting internet range for personal usage.
- It has the coverage range to thirty meters. Personal equipment includes desktop, laptop, smartphones, game stations, electronic gadgets, and music players. There are two types of PAN:
- Wireless Personal Area Network
- Wired Personal Area Network







#### Wireless Personal Area Network:

Wireless Personal Area Network is configured is based on wireless technologies like Bluetooth and Wi-Fi which falls over a limited range network.

#### Wired Personal Area Network:

Wired Personal Area Network is deployed by using USB.

### Examples Of Personal Area Network

- Body Area Network
- Offline Network
- Small Home Office



# LAN (LOCAL AREA NETWORK)



 LAN is expanded as Local Area Network where the pool of computers are linked to each other in limited ranges like apartment and office premise. This computer network connects the pool of computers via a communication device like coaxial cable, routers and switches and twisted pairs.

LAN





- It is available at low cost and built with cheaply available hardware such as ethernet cables, network adapters, and hubs. Here the transfer rate of data is high with minimal response time. This is a highly safe network less prone to hacks and data loss.
- For example, in an office with multiple departments, such as accounting, IT support, and administration, each department's computers could be logically connected to the same switch but segmented to behave as if they are separate.

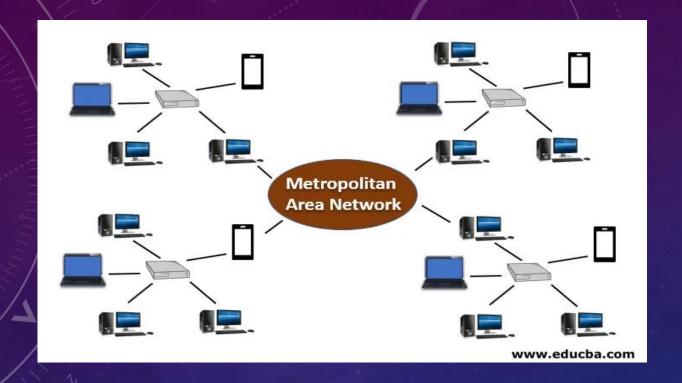




## MAN (METROPOLITAN AREA NETWORK)

- MAN which covers huge geographical areas by connecting to various local area networks united to form a large network. The government uses MAN to link private firms and people via websites or applications. In the Metropolitan Area network, different LANs are interconnected via telephone communication technology.
- Here mostly telephone cables are used to connect LAN to form MAN. The protocols applied widely in MAN are Frame Relay, ISDN, ATM, ADSL, and RS-232.







 MAN is deployed mostly in Airline reservation and establish communication between banking sectors in a city. It is also deployed in the Military range for effective communications. It can also be deployed inside the collages within that town.

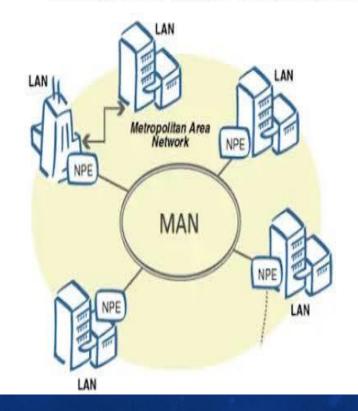




### Examples of a metropolitan area network:

CERN, the European Organization for Nuclear Research, owns several buildings on a single piece of land in Geneva and connects them together with optical fiber into a campus area network or MAN. New York City provides free Wi-Fi access to all residents as a large single MAN.

#### What is a MAN Network?

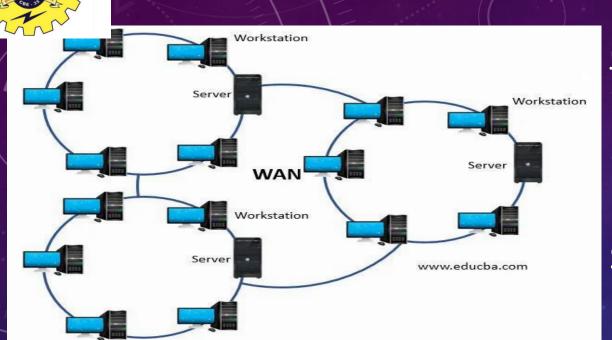




## WAN (WIDE AREA NETWORK)



- Wireless Area Network provides services for the user to connect to wireless using remote or public or private access. The connection is established in a huge geographic range like a complete city that uses the current network structure of mobile operators.
- The WAN started with a standard of 802.20 and is the goal is to achieve optimization of Mobile Broadband Wireless Access which is called MBWA.
- This 802.20 standard stands as a tough competitor for classical models of 2.5 and 3G.



The WWAN successfully made possibility of superficial voice transfer. It is also measured in GPS is Global positioning system, General Packet Radio Service is called as GPRS.

 EDGE is abbreviated from Enhanced Data rates for global evolution, Universal mobile telecommunication system is known as UMTS, HSUPA is a high-speed uplink packet and HSPDA is a high-speed downlink packet access.





#### Common examples of a WAN connection:

An organization that uses a WAN is a bank, which includes its branch offices and ATMs. The branches may be in different states or even different countries, but they are all linked by various secure

connections.

