

Assignment

1. Create a PDF summarizing the network types with example

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

types of network

LAN(Local Area network)

WAN(Personal Area network)

MAN(Metropolitan Area network)

PAN(Wide Area network)

1-LAN(local Area network)

Is a group of computers connected to each other in a small area such as building and office.

Advantages

-LAN is used for connecting two or more personal computers through a communication medium such as twisted pair, coaxial cable, etc. -It is less costly as it is built with inexpensive hardware such as hubs, network adapters and Ethernet cable.

-The data is transferred at an extremely faster rate in local Area Network

-Local area network provides higher security.

Example of LAN

-Networking in home, office

-Network in school, laboratory, university campus

-Networking between two computers

-Wi-fi (when we consider wireless LAN)

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2-PAN personal area network is a network arranged with in an individual person, typically within range of 10 metres

(Thomas Zimmerman was the first research scientist to bring the idea of the personal use.)

Advantages

-It is used for connecting the computer devices for personal use. disadvantages
it covers a smaller area of 30 feet

types of PAN

Wireless PAN is developed by simply using wireless technologies such as WI-FI, Bluetooth.

Wired PAN is created by using the USB.

Example of PAN

-Connection between a bluetooth earpiece and a smartphone

3-MAN

Is the network that covers a larger geographic area by interconnecting a different LAN to form a larger network

Advantages

The government use MAN to connect the citizens and private industries. It has a higher range than the LAN

USES OF MAN

It 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

Example of MAN

-Television cable

-DSL line

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-IEEE 802.16 or WiMAX

4-WAN

Is the network that extends over a large geographical area such as states or countries

Examples of WAN

-Mobile Broadband : A 4G network is widely used across a region or country

-Last mile

-Private network

Advantages of WAN

-Geographical area: A wide area network provides a larger geographical area. -

Centralized data: In case of WAN network, data is centralized, therefore we do not need to buy the emails, files or backup servers

-Get updated files: software companies work on the live server.

-Exchange messages: In a WAN network, messages are transmitted fast.

-Global business: We can do the business over the internet globally.

-High bandwidth: If we use the leased lines for our company then this gives the high bandwidth.

Disadvantages

-Security issue :As all the technologies are combined together that creates the security problem. -

Needs Firewall and antivirus software: The data is transferred on the internet which can be hacked or hacked by the hackers, so the firewall needs to be used .

-High Setup cost: An installation of WAN network is high as it involves the purchase of switch and routers

-troubleshooting problems: It covers a larger area so fixing the problem is difficult

2.What is intranet and Extranet?

Extranet: Is a communication network based on the Internet Protocol such as Transmission Control Protocol and Internet Protocol.

The access to the users is restricted to only those users who have login credentials.

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Intranet: Is a private network based on the Internet Protocol such as Transmission Control Protocol and Internet Protocol.

It belongs to an organization which is only accessible by the organization's employee or members.