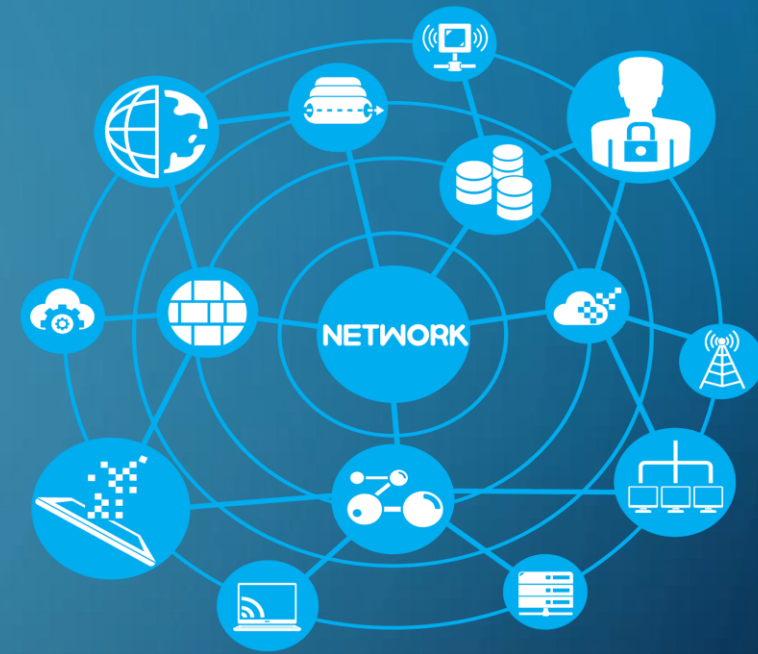


#SESSION_1

INTRODUCTION TO NETWORK



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WHAT IS NETWORK !!

A network consists of two •
or more computers that are
linked in order to share
resources



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WHY NETWORK !!

- access to job opportunities, professional connections, career advice, new ideas, and valuable information



NETWORK COMPONENTS :

HUP & SW



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ROUTER & MODEM & CAPLE



NETWORK TOPOLOGY

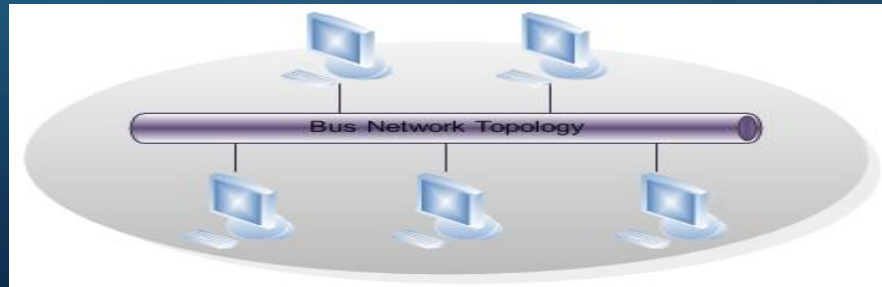
- Bus topology

Advantages

Easy installation, each cable needs to be connected with backbone cable.
Cheap and easy to implement Less cables required than Mesh and star topology Does not use any specialized network equipment

Disadvantages

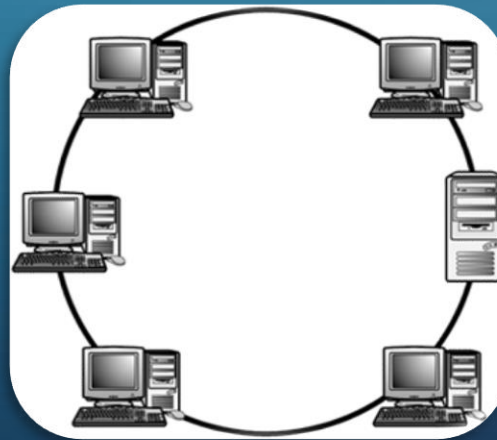
Difficultly in fault detection. Not scalable as there is a limit of how many nodes you can connect with backbone cable A break in the cable will prevent all systems from accessing the network. Network disruption when computers are added or removed



RING TOPOLOGY

Advantages

- Easy to install. Managing is easier as to add or remove a device from the topology only two links are required to be changed.



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Disadvantages

- A link failure can fail the entire network as the signal will not travel forward due to failure. A single break in the cable can disrupt the entire network. Data traffic issues, since all the data is circulating in a ring

STAR TOPOLOGY

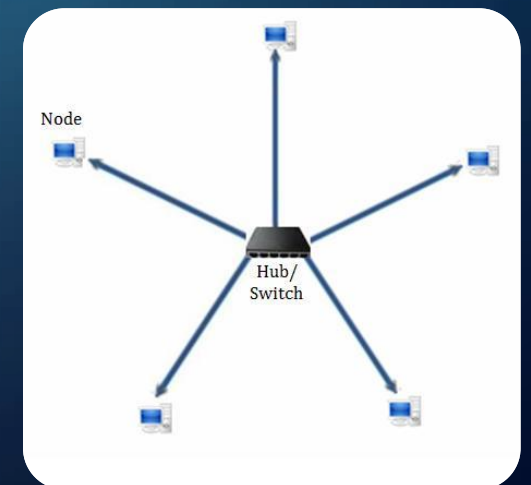
IN STAR TOPOLOGY EACH DEVICE IN THE NETWORK IS CONNECTED TO A CENTRAL DEVICE CALLED HUB.

Advantages

1. Less expensive
2. Easier to install
3. Less number of cables required because each device needs to be connected with the hub only
4. if one link fails, other links will work just fine.
5. Easy fault detection because hub is the single point of failure

DISADVANTAGES

1. IF HUB GOES DOWN EVERYTHING GOES DOWN, NONE OF THE DEVICES CAN WORK WITHOUT HUB.



MESH TOPOLOGY

IN MESH TOPOLOGY EACH DEVICE IS CONNECTED TO EVERY OTHER DEVICE ON THE NETWORK THROUGH A DEDICATED POINT-TO-POINT LINK

Advantages

- 1. No data traffic issues as there is a dedicated link between two devices which means the link is only available for those two devices.
- 2. Mesh topology is reliable as failure of one link doesn't affect other links and the communication between other devices on the network.
- 3. Fault detection is easy

Disadvantages

- 1. Amount of wires required to connect each system is tedious.
- 2. Since each device needs to be connected with other devices, number of I/O ports required must be huge.
- 3. Scalability issues because a device cannot be connected with large number of devices with a dedicated point to point link.

TYPES OF NETWORK

- LAN
- WAN
- MAN
- PAN



DON'T ASK ME ... I'M NOT 

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The image features a dark blue gradient background. In the corners, there are decorative white line art elements resembling circuit boards or neural networks, with lines and small circles connecting them. The word "THANKS..." is centered in a white, serif font.

THANKS...