

Bus Topology

Group T1-D

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Our Today's Topics

Network

1

**Network
Topology**

2

Its Types

3

Bus Topology

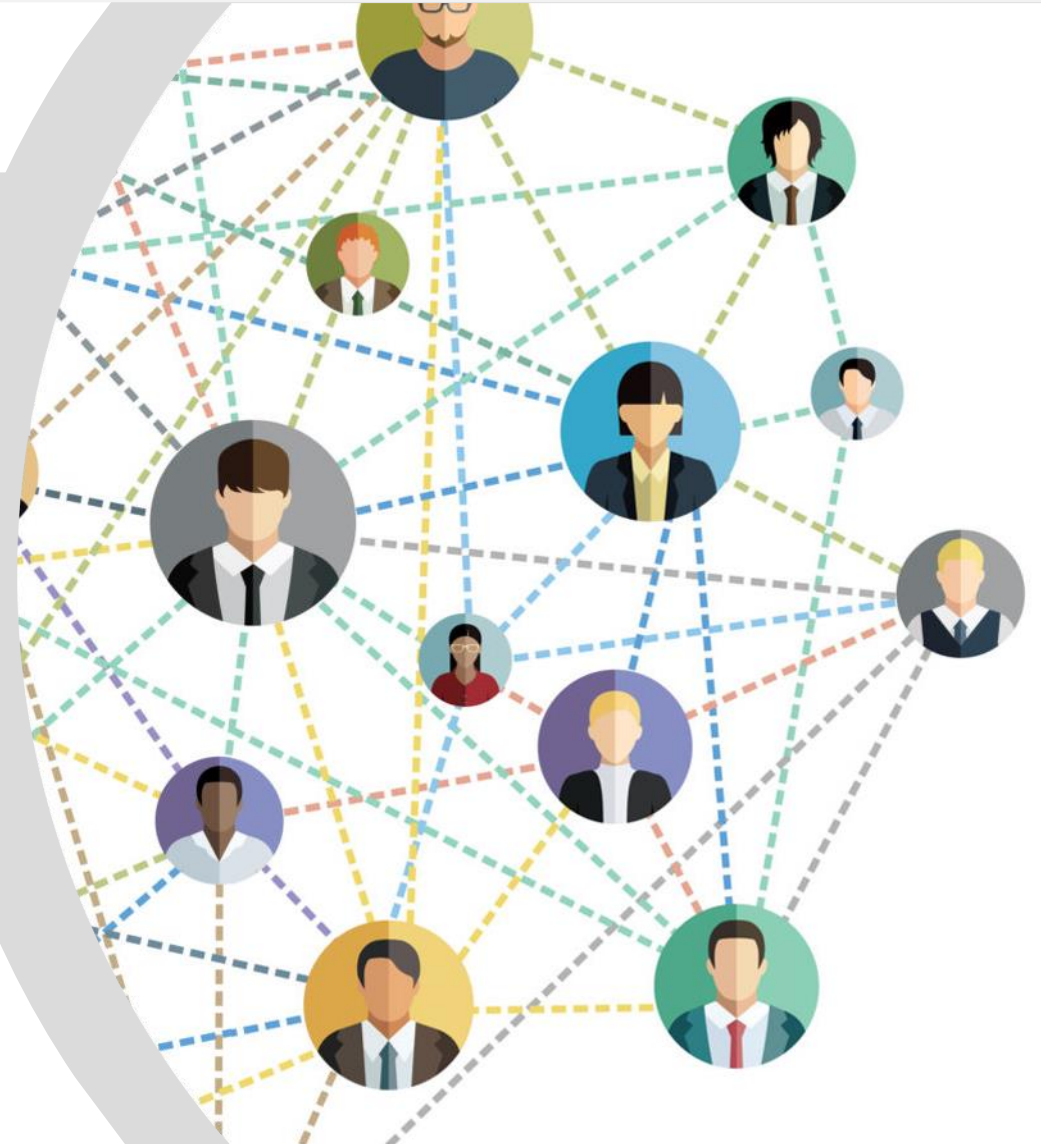
4

Its Advantages

5

Disadvantages

6



Network

A network is a collection of computers, servers, mainframes, network devices, peripherals, or other devices connected to one another to allow the sharing of data.



Local Area Network

Phone, Computer and TV connected to a single network (Home Network) via cables, Wi-Fi, Bluetooth Etc.



Metropolitan Area Network

Cable TV network, Telephone networks Etc.



Wide Area Network

Internet is the best example of Wide Area Network.

Network Topology

Network Topology is the schematic description of a network arrangement, connecting various nodes(sender and receiver) through lines of connection.

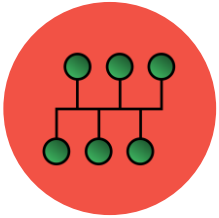
01. Physical Topology

Actual layout of the computer cables.

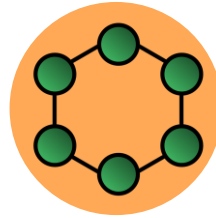
02. Logical Topology

The way device actually communicate internally.

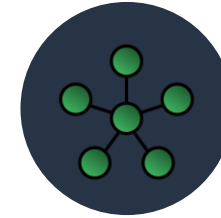
Types of Network Topology



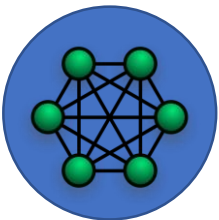
Bus Topology



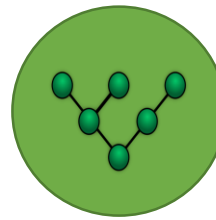
Ring Topology



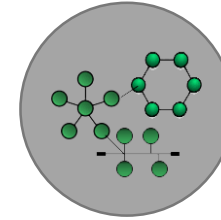
Star Topology



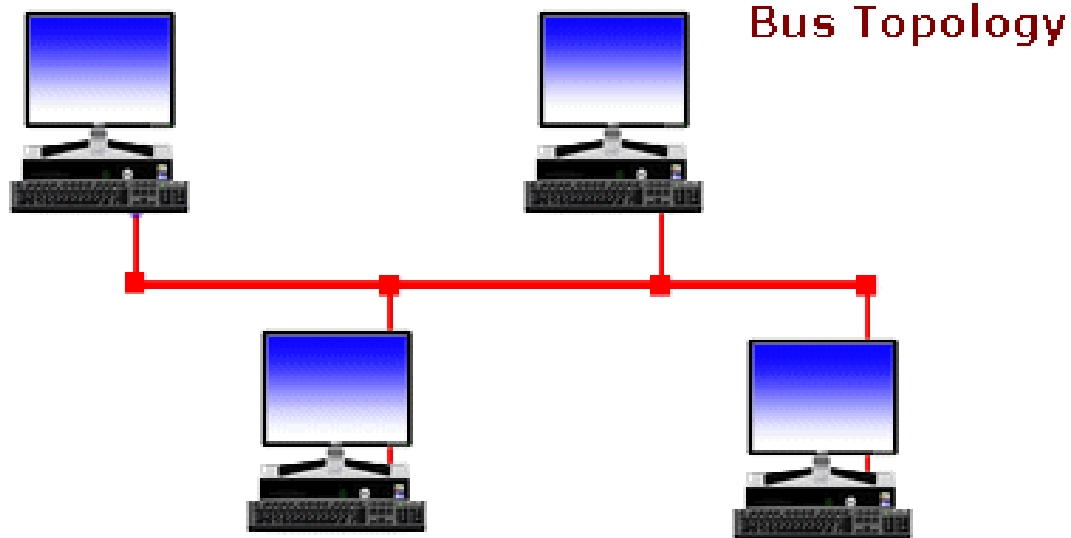
Mesh Topology



Tree Topology



Hybrid Topology



Bus Topology

A bus network is a network topology in which nodes are directly connected to a common half-duplex link called a bus.

- 01.** Uses a trunk or backbone to which all of the computer in the network connect.
- 02.** System connect to this backbone using T-connector.
- 03.** Co-axial cabling were popular option year ago.

Advantages

Some of the advantages of Bus Topology are:

Very easy to connect a computer or peripheral to a linear bus

1

Requires less cable length than a star topology resulting in lower costs

2

The linear architecture is very simple and reliable

3

It does not need a dedicated device and It works well for small networks

4

It is easy to extend by joining cable with connector or repeater

5

If one node fails, it will not affect the whole network

6



Disadvantages

Some of the disadvantages of Bus Topology are:

The entire network shuts down if there is a break in the main cable or one of the T connectors break



All node get the info and this is slow with many nodes in the network



01



02



03



04



Large amount of packet collisions on the network, which results in high amounts of packet loss



There is a security issue and It is difficult to isolate any faults on the Network



THANKS

Have a nice day !