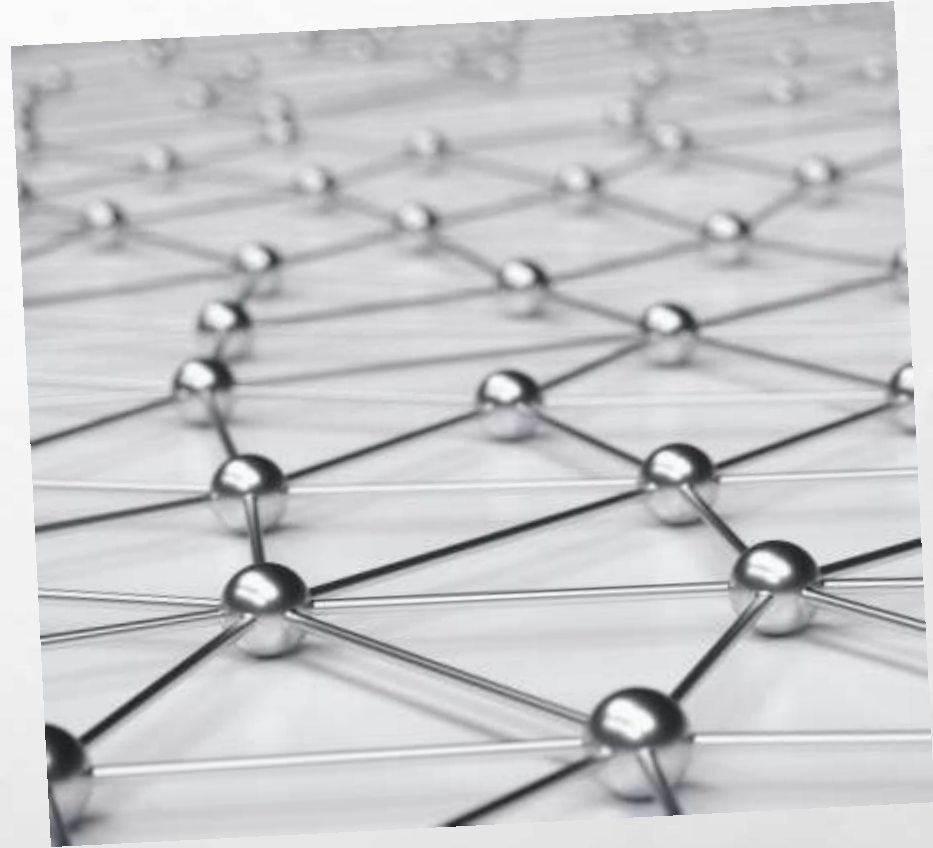# NETWORK TOPOLOGY

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LEARNING OBJECTIVES

- COMPUTER NETWORK

- NETWORK TOPOLOGY

- BUS TOPOLOGY

- ADVANTAGES AND DISADVANTAGES

- APPLICATIONS

COMPUTER NETWORK

Computer network refers to interconnected computing devices that can exchange data and share resources with each other.

These networked devices use a system of rules, called communications protocols, to transmit information over physical or wireless technologies.

NETWORK TOPOLOGY

In computer networks, a topology is used to explain how a network is physically connected and the logical flow of information in the network.

A topology mainly describes how devices are connected and interact with each other using communication links.

BUS TOPOLOGY

Bus topology is the simplest kind of topology in which a common bus or channel is used for communication in the network. The bus is connected to various connectors and the cables connecting the bus with the computer. In other words, there is only a single transmission line for all nodes.

BUS TOPOLOGY

When a sender sends a message, all other computers can hear it, but only the receiver accepts it(verifying the mac address attached with the data frame) and others reject it.
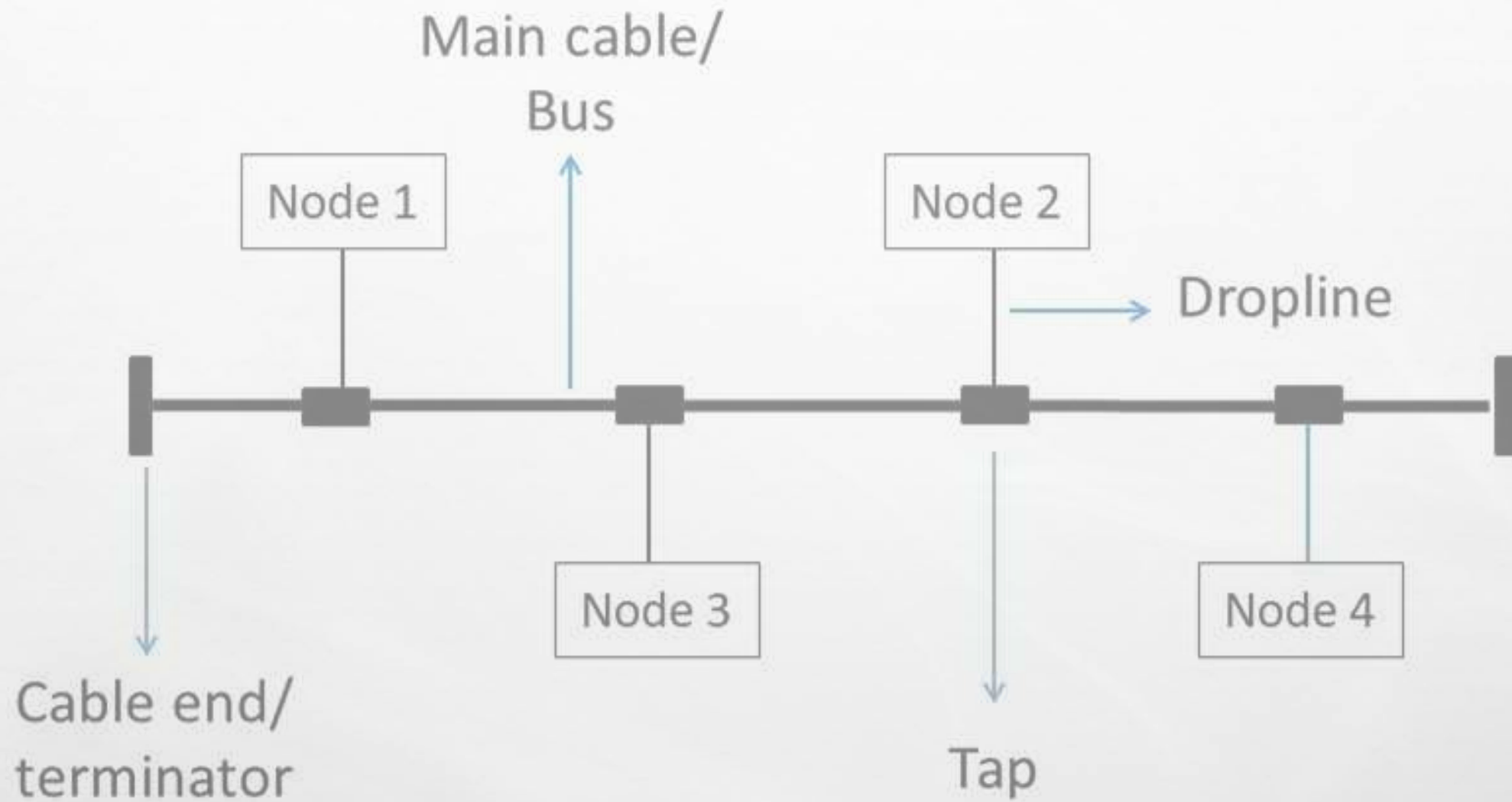
ADVANTAGES OF BUS TOPOLOGY

- Simple to use and install.

- If a node fails, it will not affect other nodes.

- Less cabling is required.

- Cost-efficient to implement.

DISADVANTAGES OF BUS TOPOLOGY

- Efficiency is less when nodes are more

- If the bus fails, the network will fail.

- A limited number of nodes can connect to the bus due to limited bus length.

APPLICATIONS

Bus technology is mainly suited for small networks like LAN, etc.