**Networks topology**

Network topology refers to the manner in which the links and nodes of a network are arranged to relate to each other. Topologies are categorized as either physical network topology, which is the physical signal transmission medium, or logical network topology, which refers to the manner in which data travels through the network between devices, independent of physical connection of the devices. Logical network topology examples include twisted pair Ethernet, which is categorized as a logical bus topology, and token ring, which is categorized as a logical ring topology.

* **Bus network topology :**

Known as backbone network topology ,

This configuration connects all devices to a main cable via drop lines , The advantages of bus network topology lie in its simplicity, as there is less cable required than in alternative topologies, which makes for easy installation.

* **Mesh network topology**

A dedicated point-to-point link connects each device on the network to another device on the network, only carrying data between two devices.

To link n devices fully connected mesh has:

n ( n - 1) / 2 physical channels (Full-Duplex)

Every Device on the network must have

n - 1 ports

* **Star network topology**

The most common network topology, star topology connects each device in the network to a central hub. Devices can only communicate with each other indirectly through the central hub.

* **Ring network topology**

Two dedicated point-to-point links connect a device to the two devices located on either side of it, creating a ring of devices through which data is forwarded via repeaters until it reaches the target device.

* **Hybrid network topology**

Any combination of two or more topologies is a hybrid topology.