

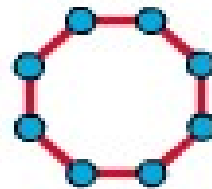
Network topology

- The structure of the network:
 - Physical topology
 - Actual layout of the media
 - Logical topology
 - How the hosts access the media

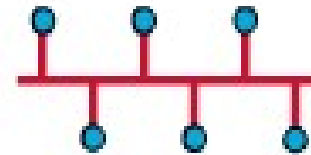
Physical Topology

- Bus
 - Uses a single backbone cable
 - All hosts connect directly to backbone

- Ring



Ring Topology



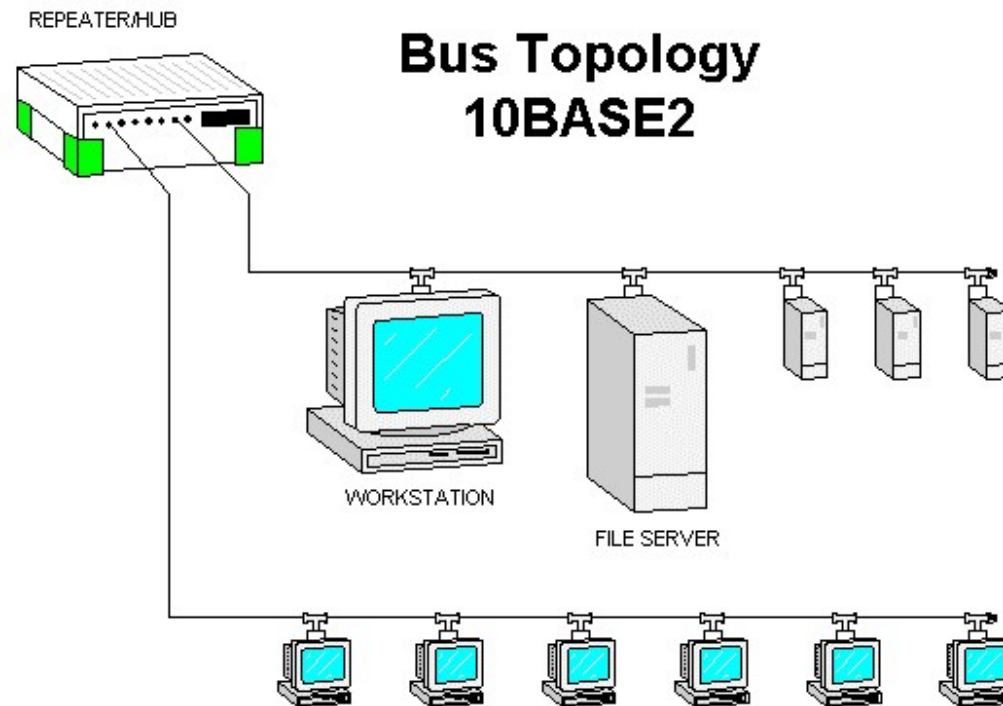
Bus Topology

- Connects each node to the backbone
- All nodes share the same communication channel

- Physical ring of cable

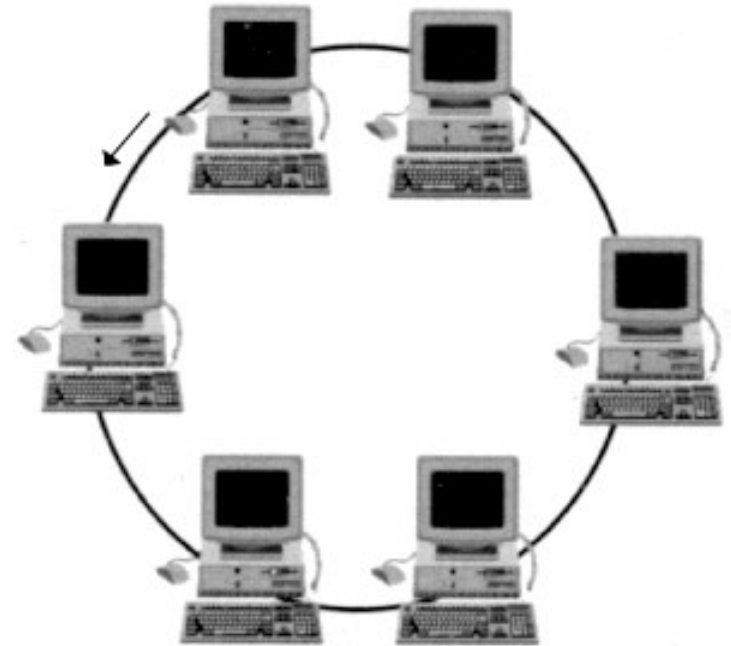
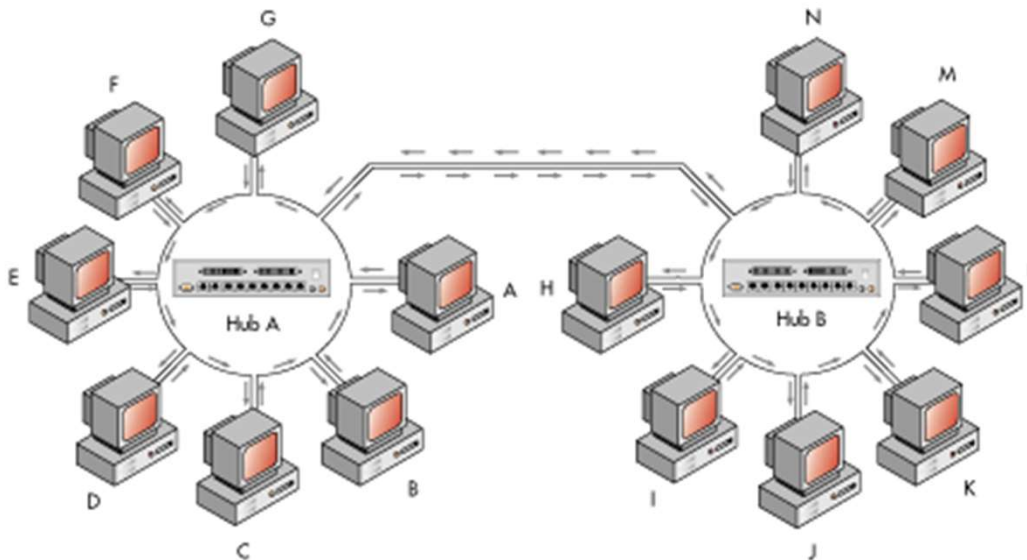
Each node connects directly to the backbone

Bus Topology



“A bus topology uses a single backbone segment (length of cable) that all the hosts connect to directly.”

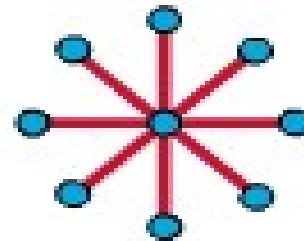
Ring Topology



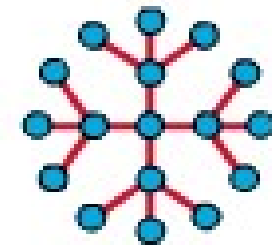
“A ring topology connects one host to the next and the last host to the first. This creates a physical ring of cable.”

Physical Topology

- Star
 - Connects all cables to a central point of concentration
 - Usually a hub or switch at center



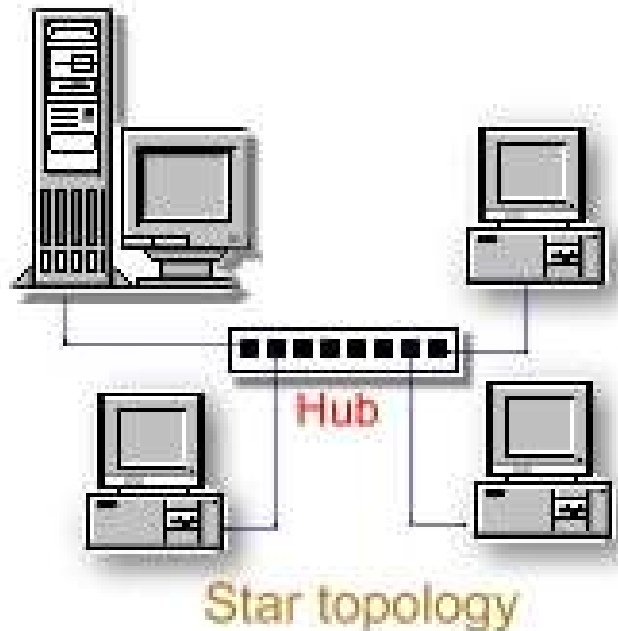
Star Topology



Extended Star Topology

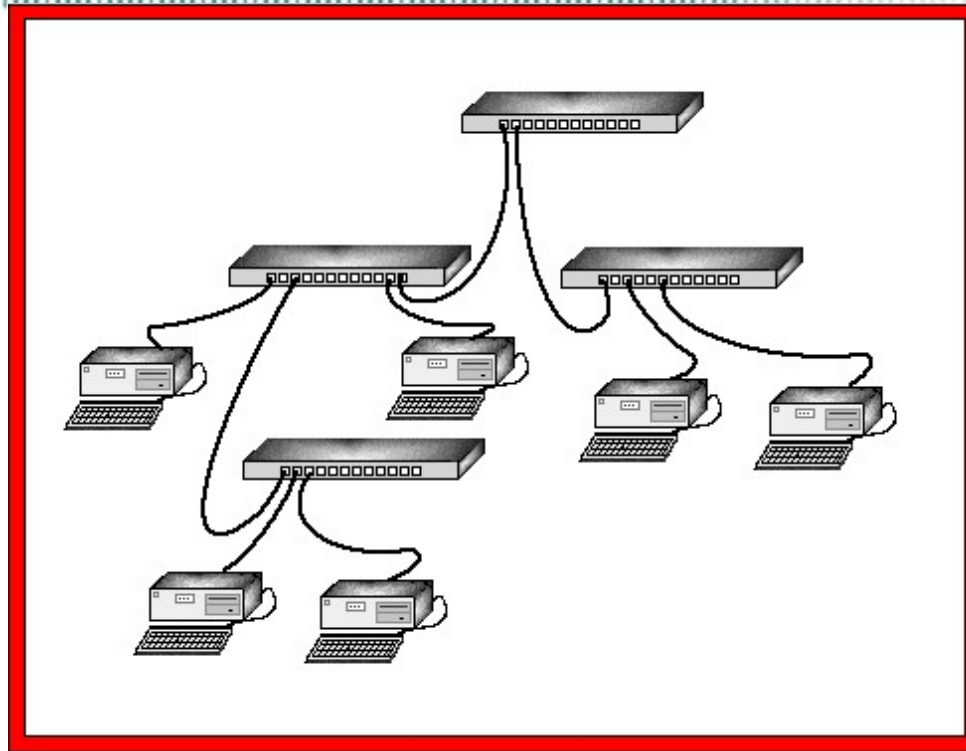
- Extended Star
 - Links stars by linking

Star Topology



“A star topology connects all cables to a central point of concentration. This point is usually a hub or switch, which will be described later in the chapter.”

Extended Star Topology

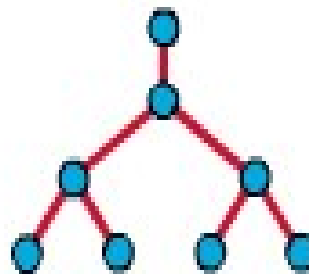


“An extended star topology uses the star topology to be created. It links individual stars together by linking the hubs/switches. This, as you will learn later in the chapter, will extend the length and size of the network.”

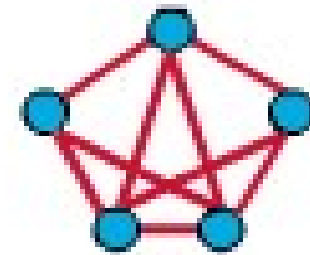
Physical Topology

- Hierarchical
 - Similar to extended star
 - Links star LANs to a computer that controls network traffic

- Mesh
 - Each host is connected to multiple other hosts
 - No breaks, ever!



Hierarchical
Topology



Mesh
Topology

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