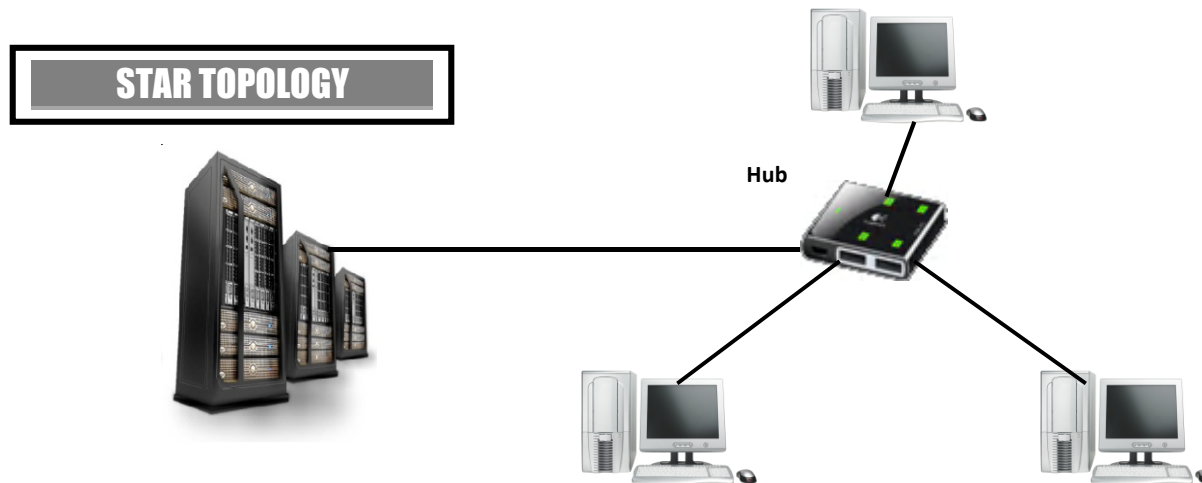
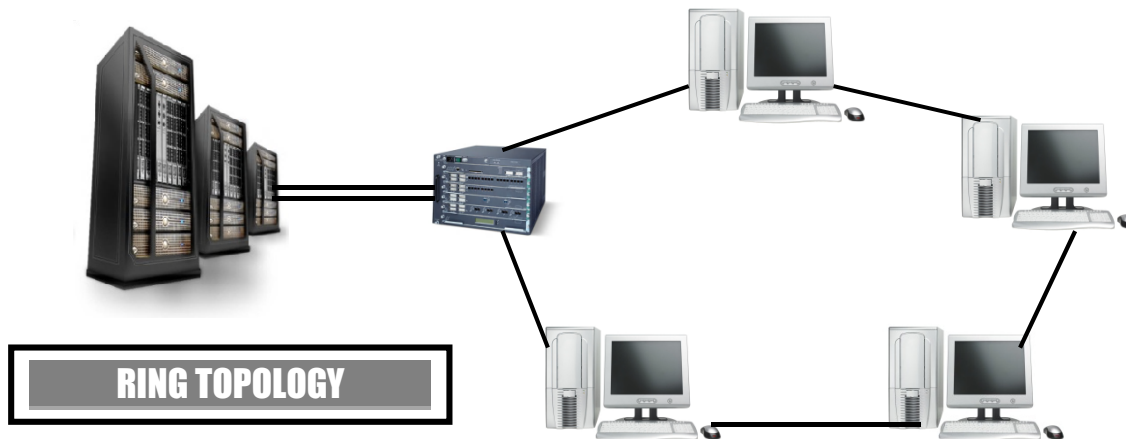


# NETWORK INFRASTRUCTURE - Topologies



## What is a Topology?

**Network Infrastructure layout (or Topology)** is the way you choose to layout your network.

**Bus Topology** is the most simple and is a single cable connecting devices together.

**Ring Topology** is one of the most common ways of laying out the network. This is where the clients are connected in a loop, and through a router linked to the server.

**Star Topology** is where all network devices are linked via a central **hub**. The benefit here is that one strand of the network cannot cause failure to the entire network.

**Branch (or Tree) Topology** is a network which has combinations of the above two.

## Which Protocols and Cables are used?

The topology will often dictate which protocols are used when designing the network. Examples are:

### Bus Topology:

**Cable:** Twisted pair (copper). **Protocol:** Ethernet, 10Base-2, 10Base-5.

### Ring Topology:

**Cable:** Twisted pair (copper) and Fibre optic. **Protocol:** Token Ring and FDDI, SONET.

### Star Topology:

**Cable:** Twisted pair (copper), and fibre optic. **Protocol:** Ethernet, Local talk, Frame Relay.