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| **PART TWO Information Technology Technical Question 3 mins** |

In this part of the exam, you will talk about **Network** **Topologies**. The following ideas will help you.

* What types of network topology arrangements do you know? E.g., Bus, Star, Ring, Mesh……
* Which is the most popular choice and why?
* Can you give examples of where some are used?

**2A**

A diagram of a network diagram

Description automatically generated

A diagram of a computer network

Description automatically generated

**2B**

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• What types of network topology arrangements do you know? E.g., Bus, Star, Ring, Mesh……

Network topologies describe the arrangement of various elements in a computer network:

* **Bus Topology:** All devices are connected to a single central cable, called the bus or backbone. Data sent from a device travel along the bus until it reaches its destination.
* **Star Topology:** All devices are connected to a central hub or switch. Data sent from a device passes through the hub before reaching its destination.
* **Ring Topology:** Each device is connected to two other devices, forming a circular data path. Data travels in one direction around the ring until it reaches its destination.
* **Mesh Topology:** Devices are interconnected, with each device having a direct link to every other device. This provides high redundancy and reliability.
* **Tree Topology:** A hybrid topology that combines star and bus topologies. Devices are arranged in a hierarchical structure, with a central root node and branches of nodes.

• Which is the most popular choice and why?

**Star**

* Easy to Install and Manage: It's easy to expand the network by adding more devices to the central hub without disrupting the existing network.
* Centralized Control
* Fault Isolation
* Performance
* Security
* Can you give examples of where some are used?

Servers, Printers

A diagram of a computer network

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A diagram of a network diagram

Description automatically generated

**2B**

**2A**