

Assignment

USING CISCO PACKET TRACER EXPLAIN HOW STAR TOPOLOGY IS ACHIEVED

Explanation using Cisco Packet Tracer:

To achieve a star topology in Cisco Packet Tracer, a switch is placed at the center of the network. End devices such as computers (PCs), printers, or servers are then connected individually to the switch using copper straight-through cables.

Each end device has a dedicated point-to-point link to the central switch. This means that if one cable or device fails, it does not affect the other devices in the network, which is a key characteristic of star topology.

In Cisco Packet Tracer, after connecting the devices:

The PCs are assigned IP addresses (either manually or automatically).

The switch forwards data received from one device only to the intended destination device.

All communication between end devices must pass through the switch.

Thus, the presence of a central switch with all other devices radiating outward from it clearly demonstrates a star topology in Cisco Packet Tracer.