DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING
Discover. Learn. Empower.

EXPERIMENT 3

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BRANCH : BE-CSE **SECTION: 22BCS-IOT-613B**

SEMESTER : 5 **DATE : 31/7/2024**

SUBJECT: COMPUTER NETWORKS **SUBJECT CODE: 22CHS-312**

1. AIM:

Implement different network topologies like Star, Bus and Mesh Topologywith the help of packet tracer

2. REQUIREMENTS:

To understand Star, Bus and Mesh Topology

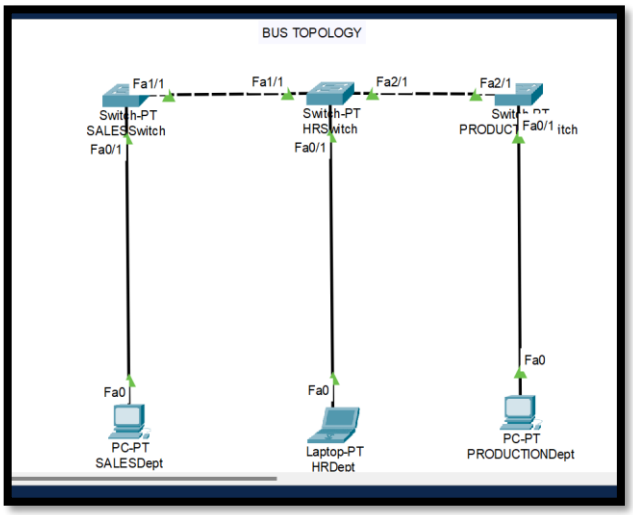
3. PROCEDURE:

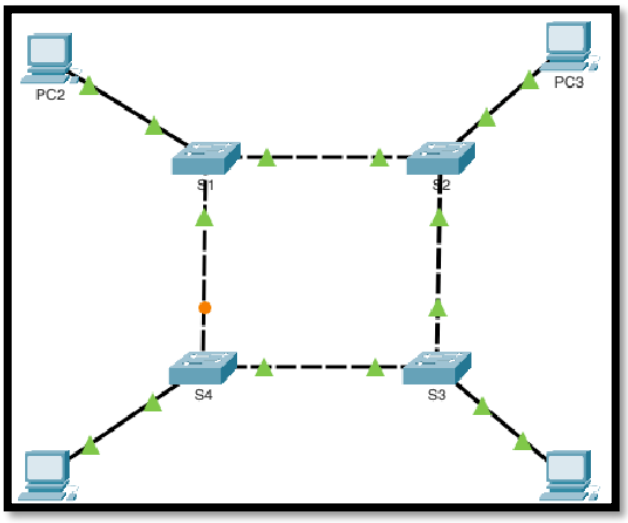
- Connect Network Management System: Attach the networkmanagement system to the network.
- Connect Router to PC: Use a console cable to connect the router to a PCvia the console port.
- Enter Global Configuration Mode: In the router, type enable and thenconfigure terminal to enter global configuration mode.
- Access Interface Configuration Mode: Type interface fastEthernet 0/0 toaccess the interface configuration mode for the FastEthernet 0/0 port.
- Set Static IP Address: Assign a static IP address to the interface with ipaddress 192.168.10.1 255.255.255.0.
- Enable the Interface: Use command no shutdown to turn the interface on.

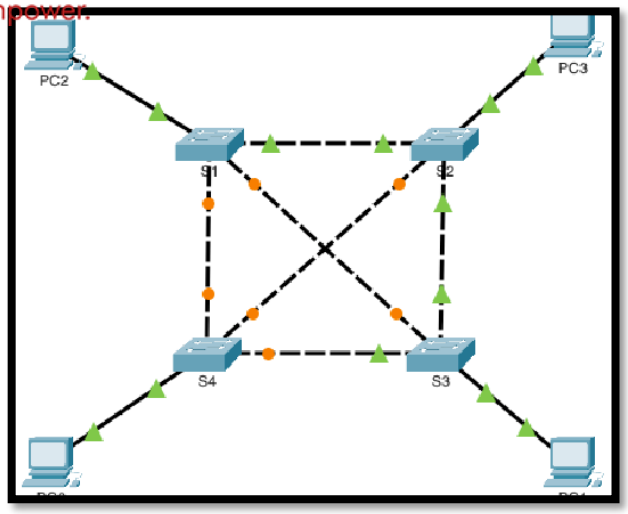
- Check Interface Status: Verify the interface status by observing the linklight indicator in Cisco Packet Tracer.
- Set Workstation IP Addresses: Assign IP addresses to each workstationstatically.
- Configure DHCP Role: If desired, set up DHCP on the router to automatically assign IP addresses to devices.
- Use Putty or Similar Program: Optionally, use a program like Putty forremote router configuration.
- Save Configuration: Save the configuration changes to ensure theypersist after a reboot.

Test Network Connectivity: Test the network to ensure all devices cancommunicate through the router.

4. OUTPUT:







5. LEARNING OUTCOME:

a. Understand the setup and configuration of Star, Bus, and Mesh network topologies.

b. Learn to use Cisco Packet Tracer to simulate different network designs.

Gain practical skills in configuring network devices and analyzing their connectivity.