

Subject: Computer Networks (01CT0503)

Aim: Simulate star topology and check the connectivity between devices.

Experiment No: 03

Date:

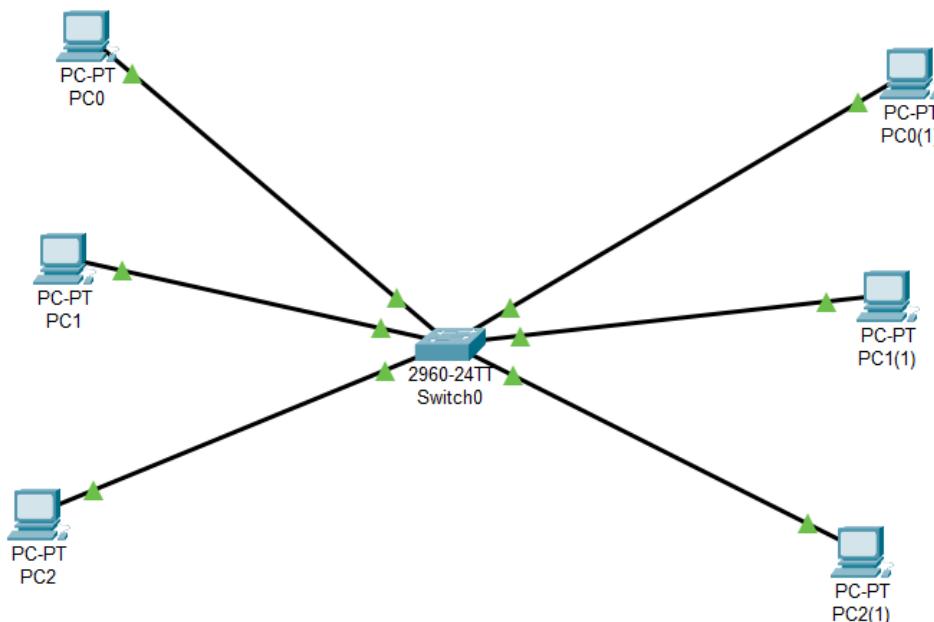
Enrolment No: 92301733041

Aim: Simulate star topology and check the connectivity between devices.

Topology: It shows the connection of networks, how every device is connected to each other.

Star Topology: it is type of connection where all devices are connected to one central device (Hub, Switch).

Step1: Make connection in star topology using straight through cable



Step 2: assign of IP address to each pc



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PCO

Physical Config Desktop Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

DHCP Static IPv4 Address: 10.10.10.1
Subnet Mask: 255.0.0.0
Default Gateway: 0.0.0.0
DNS Server: 0.0.0.0

IPv6 Configuration

Automatic Static IPv6 Address: FE80::204:9AFF:FE6A:ECC5
Link Local Address: FE80::204:9AFF:FE6A:ECC5
Default Gateway:
DNS Server:

802.1X

Use 802.1X Security
Authentication: MD5
Username:
Password:

 Top

Step 3: verify the connection using ping command to check whether the connection is established or not



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Command Prompt

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Cisco Packet Tracer PC Command Line 1.0
C:>ping 10.10.10.4

Pinging 10.10.10.4 with 32 bytes of data:

Reply from 10.10.10.4: bytes=32 time<1ms TTL=128

Ping statistics for 10.10.10.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:>ping 10.10.10.6

Pinging 10.10.10.6 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 10.10.10.6:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:>
```

Here we can see the connection between 1st pc and 4th pc is established but for 6th pc it is giving timeout error because the IP add for pc 6th I have set it 11.10.10.6 so it is not the part of this network as all other are the part of network 10.

Conclusion: In this exp I got to know about topology int that I make the connection using star topology where I have used switch as a central device and check the connection between every pc by sharing packets or using ping command and passing the IP add as parameter. Timeout stands for packet was destroyed in between so TTL is 0,packet hasn't received at receiver side because the IP add I passed as parameter which is not the part of the network.