Experiment: 9

Configuration Telnet

Aim:

To understand the operation of TELNET by accessing the router in server room from a PC in IT office.

Requirements

- Windows pc – 2 Nos
- CISCO Packet Tracer Software (Student Version)
- 8 port switch – 1 No
- Router – 1 Nos
- Cat-5 LAN cable

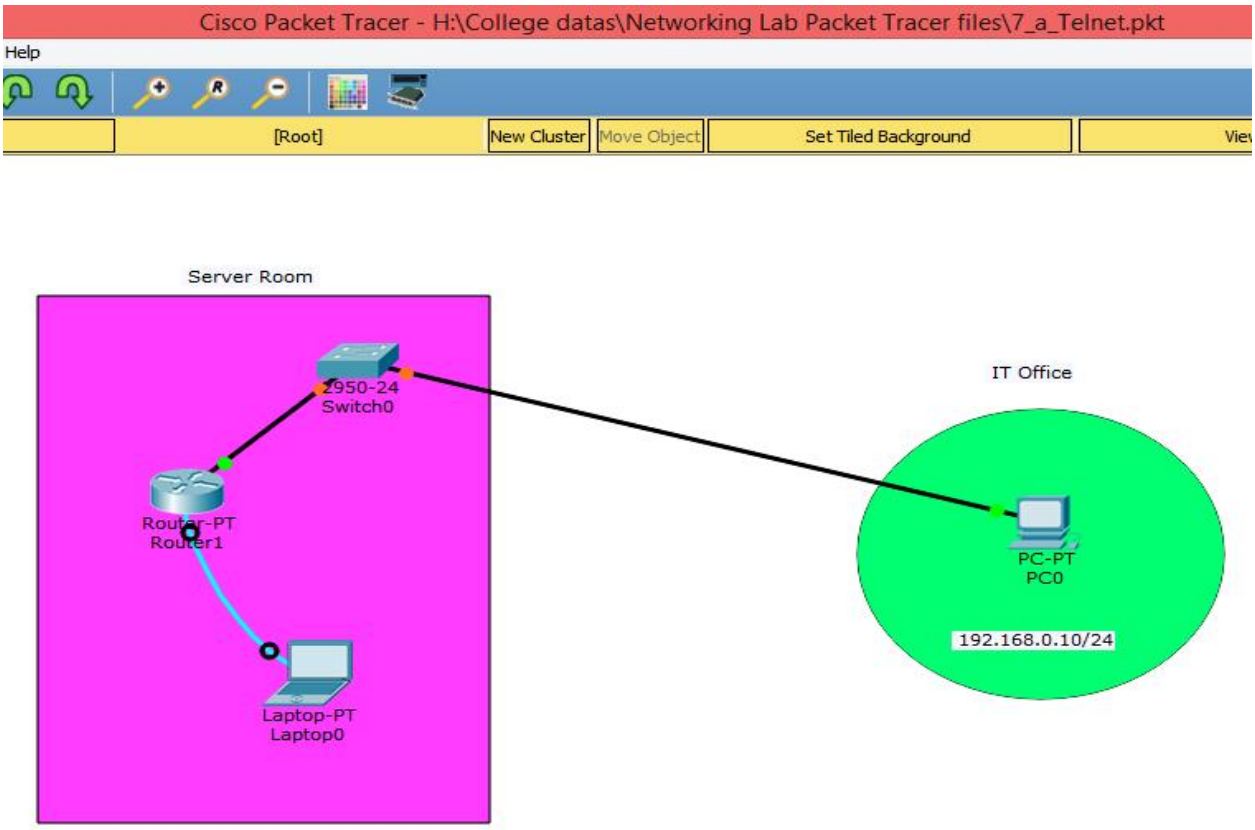
Procedure

- Open the CISCO Packet tracer software
- Drag and drop 1 pc and 1 laptop using End Device Icons on the left corner.
- Select 8 port switch from switch icon list in the left bottom corner
- Select Routers and Give the IP address for serial ports of router
- Type CLI's for the router
- Make and verify the connections from any pc to the server by providing correct password; in command prompt of PC.
- Ping between PCs and observe the transfer of data packets in real and simulation mode.

Theory

Telnet, developed in 1969, is a protocol that provides a command line interface for communication with a remote device or server, sometimes employed for remote management but also for initial device setup like network hardware. Telnet stands for Teletype Network, but it can also be used as a verb; 'to telnet' is to establish a connection using the Telnet protocol.
Telnet is a simple, text-based network protocol that is used for accessing remote computers over TCP/IP networks like the Internet.

Network Topology Diagram for TELNET



Input Details for TELNET

Router 0	PC0	PC1
IP Address : 192.168.0.1 Gate way : -	IP Address : 192.168.0.2 Gate way : 192.168.0.1	IP Address : 192.168.0.3 Gate way : 192.168.0.2

ROUTER CLI:

Router#config

Configuring from terminal, memory, or network [terminal]?

Router(config)#line vty 0 4

Router(config-line)#password sai123

Router(config-line)#login local

Router(config-line)#exit

Router(config)#username sai privilege 4 password sai123

Router(config)#exit

OUTPUT:

PINGING FROM PC0 TO SERVER USING TELENET:

C:\>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:
Reply from 192.168.0.1: bytes=32 time=1ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.0.1:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>telnet 192.168.0.1
Trying 192.168.0.1 ...Open
User Access Verification
Username: **sai**
Password: **<type the password---sai123(invisible)>**

Router#show ip route***(now router can be accessed from pc0)***
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
Gateway of last resort is not set
192.168.0.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.0.0/24 is directly connected, GigabitEthernet0/0
L 192.168.0.1/32 is directly connected, GigabitEthernet0/0
Router#

Result:

Thus, verified the operation of TELNET and accessed the router from Pcs.