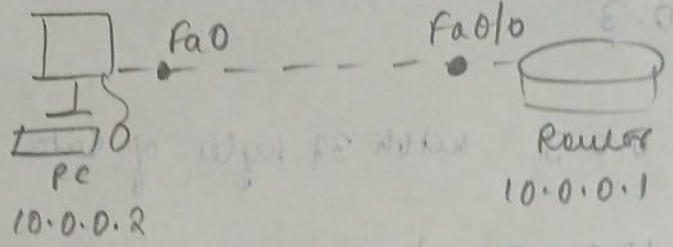
Experiment 10

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

TOPOLOGY



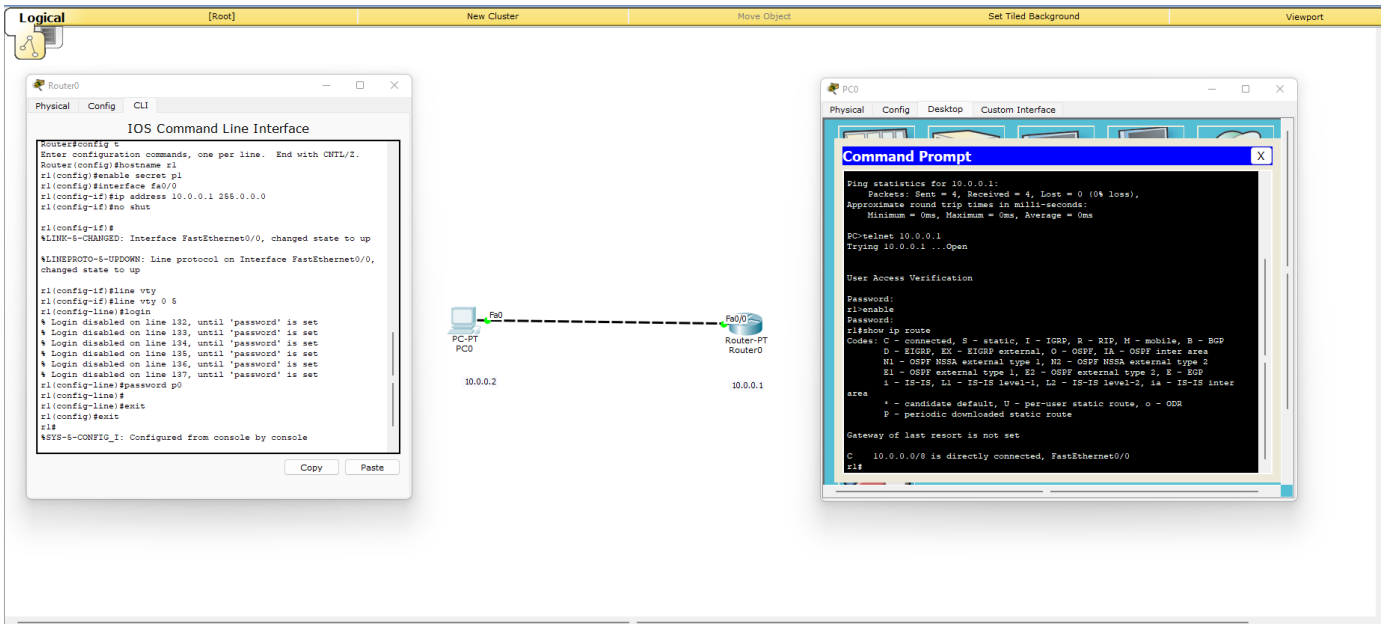
Procedure

(i) Configure Topology as shown above, add gateways and ip address and configure routers as usual

(ii) In Routers,

Router > enable
Router # config t
Router (config) # hostname r1
r1 (config) # enable secret p1
r1 (config) # interface fa 0/0
r1 (config-if) # ip address 10.0.0.1 255.0.0.0
r1 (config-if) # no shut
r1 (config-if) line vty 05
r1 (config-line) # login
r1 (config-line) # password p0
r1 (config-line) # exit
wr ⇒ to save changes

OUTPUT :


Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Router0
Physical
Config
CLI
IOS Command Line Interface
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname r1
r1(config)#enable secret p1
r1(config)#interface fa0/0
r1(config-if)#ip address 10.0.0.1 255.0.0.0
r1(config-if)#no shut
r1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
r1(config-if)#line vty
r1(config-if)#line vty 0 5
r1(config-line)#login
% Login disabled on line 132, until 'password' is set
% Login disabled on line 133, until 'password' is set
% Login disabled on line 134, until 'password' is set
% Login disabled on line 135, until 'password' is set
% Login disabled on line 136, until 'password' is set
% Login disabled on line 137, until 'password' is set
r1(config-line)#password p0
r1(config-line)#
r1(config-line)#exit
r1(config)#exit
r1#
%SYS-5-CONFIG_I: Configured from console by console
Copy
Paste
Fa0
PC-PT
PC0
10.0.0.2
Fa0/0
Router-PT
Router0
10.0.0.1
PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
X
Ping statistics for 10.0.0.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
PC>telnet 10.0.0.1
Trying 10.0.0.1 ...Open
User Access Verification
Password:
r1>enable
Password:
r1#show ip route
Codes: C - connected, S - static, I - IGRP, 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 result is not set
C 10.0.0.0/8 is directly connected, FastEthernet0/0
r1#

OBSERVATION:

Observations

(i) Telnet stands for Teletype Network, but it is used as a verb to 'telnet', i.e establish a connection using the telnet protocol. It's a simple text-based network protocol that is used for accessing remote computers over TCP/IP networks

(ii) Here, we accessed the router CLI from PC & ran commands

~~Datagram's TTL field~~ is set by sender and reduced by each router along the path to its destination

(iii) whatever is being performed on the remote device, will be displayed by the local computer. Basically, TELNET operates on the client/server principle.