Experiment - 12

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


Fa0
Fa0/0
PC-PT
PC0
Router-PT
Router0
10.0.0.2
10.0.0.1

Router0

Physical | Config | CLI

IOS Command Line Interface

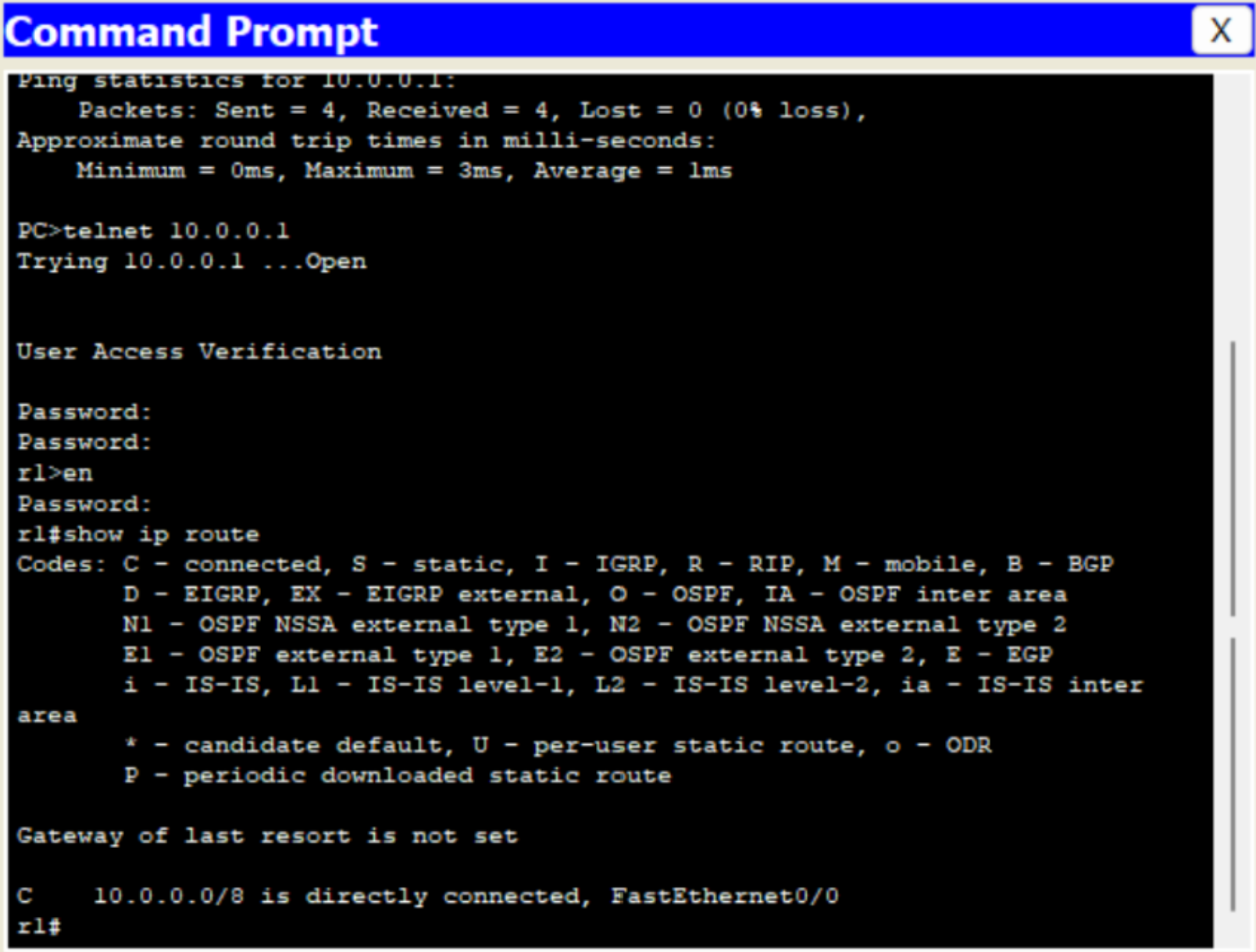
```
Router>en
Router#cong t
          ^
% Invalid input detected at '^' marker.

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 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#
```


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 = 3ms, Average = 1ms
PC>telnet 10.0.0.1
Trying 10.0.0.1 ...Open
User Access Verification
Password:
Password:
r1>en
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 resort is not set
C 10.0.0.0/8 is directly connected, FastEthernet0/0
r1#

Command Prompt

```
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time=1ms TTL=255
Reply from 10.0.0.1: bytes=32 time=0ms TTL=255
Reply from 10.0.0.1: bytes=32 time=0ms TTL=255
Reply from 10.0.0.1: bytes=32 time=3ms TTL=255

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 = 3ms, Average = 1ms
```

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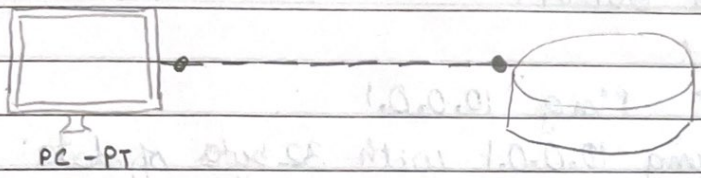
TELNET

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

Topology:



Procedure:

- Create a topology as shown, a PT-PC & a router
- Configure the IP address & gateway for PC0
- Configure the router by executing the following commands:

Step 1: enable.
step 2: config T
step 3: host name p1
step 4: enable secret p1
step 5: interface fa 0/0
step 6: ip address 10.0.0.1 255.0.0.0
step 7: No shut
step 8: line vty 0 5
step 9: log in
step 10: password po
step 11: exit, exit

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Step 12: CLI

Ping message to routes
Password for user Access Verification is p0
password for enable is p1
Accessing router CLI from PC
Show ip route

PING OUTPUT:

PC > Ping 10.0.0.1
Pinging 10.0.0.1 with 32 bytes of data:
Reply from 10.0.0.1: bytes = 32 time = 0ms TTL = 255
Reply from 10.0.0.1: bytes = 32 time = 0ms TTL = 255
Reply from 10.0.0.1: bytes = 32 time = 0ms TTL = 255
Reply from 10.0.0.1: bytes = 32 time = 0ms TTL = 255

Ping statistics for 10.0.0.1
Packets sent = 4 Recieved = 4 Loss = 0 (0% loss)
Approximate round trip times in milliseconds:
minimum = 0ms, Maximum = 0ms, Average = 0ms

PC > telnet 10.0.0.1
Typing 10.0.0.1 ... open
user access verification
Password: P0
P1 > enable
Password: P1
r1 # show ip route

C 10.0.0.0/8 is directly connected, FastEthernet0/0

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Observation:

→ TELNET stands for Teletype Network. It is a type of protocol that enables one computer to connect to the local computer.

→ It is used as a standard TCP/IP protocol for virtual terminal service provided by ISO.

→ TELNET operates on a client/server principle.

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