

DATE : 18-DECEMBER-2024

## **LAB- 9**

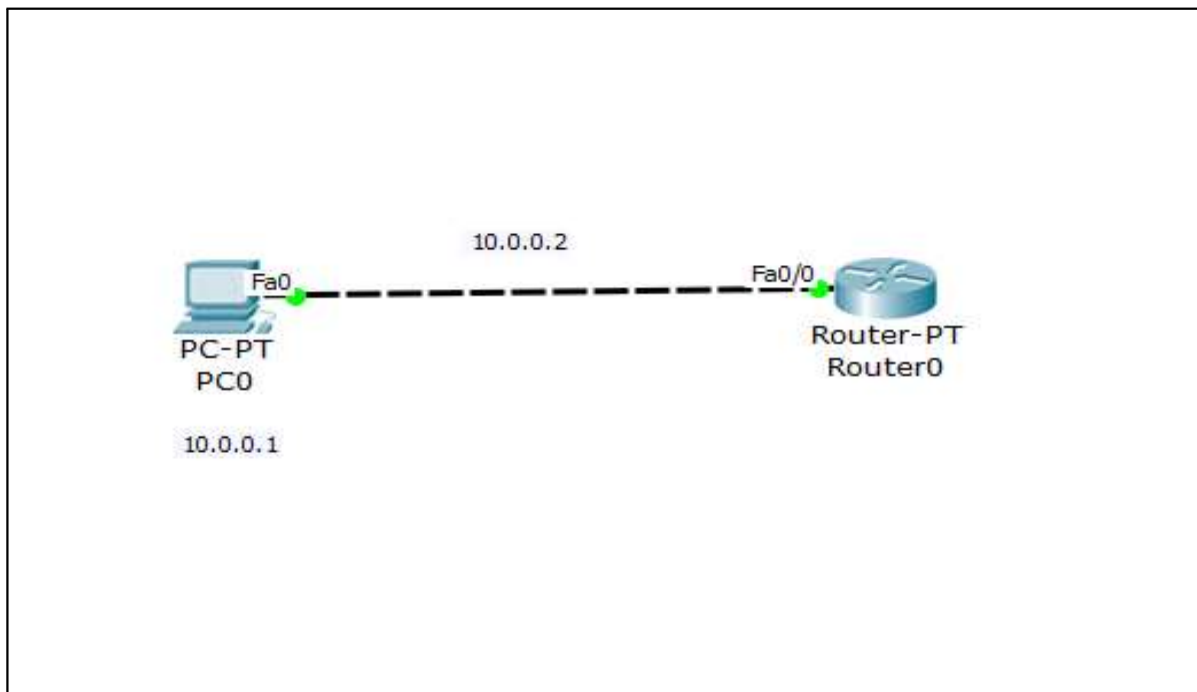
### **Question:**

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

### **Aim:**

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

### **Topology:**



### **Topology Description**

The provided network topology includes:

- **PC0:** Acts as a client, located in the IT office.
  - IP Address: 10.0.0.2
- **Router0:** Acts as the server in the server room.

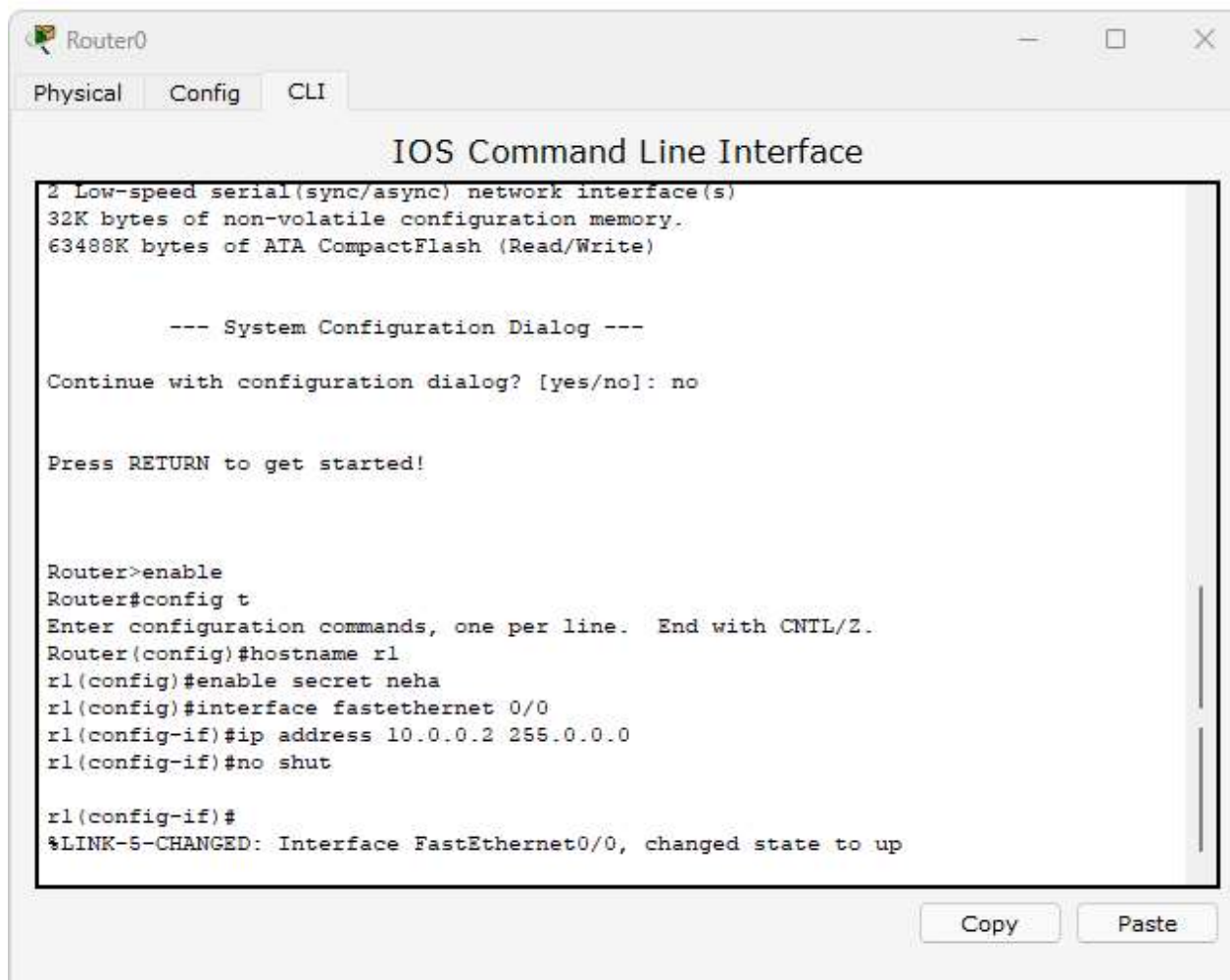
- Interface IP Address on Fa0/0: 10.0.0.1

The PC and router are directly connected using an Ethernet cable between their FastEthernet ports.

## **Procedure:**

### **1. Configure the Router:**

- Access the router's CLI (Command Line Interface) through the console or directly in Packet Tracer.



The screenshot shows the 'Router0' window with the 'CLI' tab selected. The title bar includes 'Router0' and standard window controls. Below the tabs, the text 'IOS Command Line Interface' is displayed. The main area contains the following text:

```
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

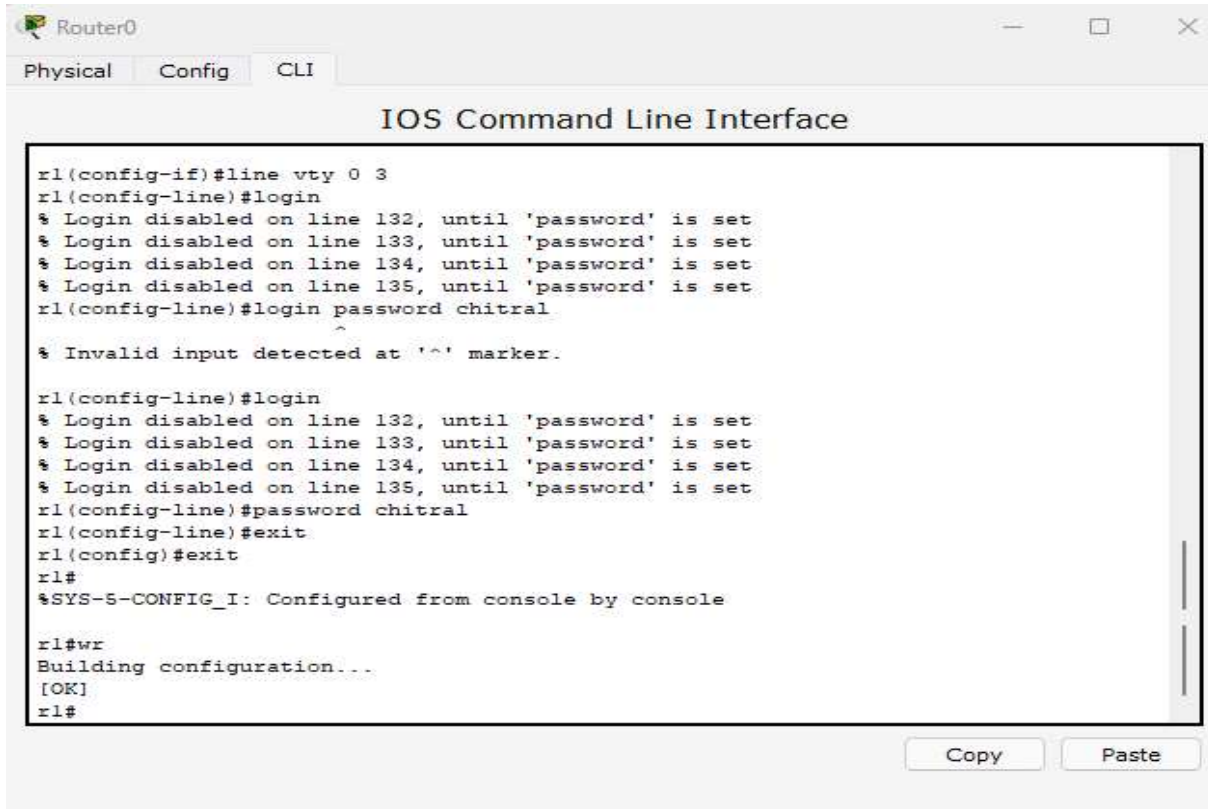
Continue with configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname r1
r1(config)#enable secret neha
r1(config)#interface fastethernet 0/0
r1(config-if)#ip address 10.0.0.2 255.0.0.0
r1(config-if)#no shut

r1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
```

At the bottom right of the window, there are 'Copy' and 'Paste' buttons.



The screenshot shows the CLI of a router named Router0. The tabs at the top are Physical, Config, and CLI. The title bar says "IOS Command Line Interface". The command history shows the following:

```

r1(config-if)#line vty 0 3
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
r1(config-line)#login password chitral
% Invalid input detected at '^' marker.

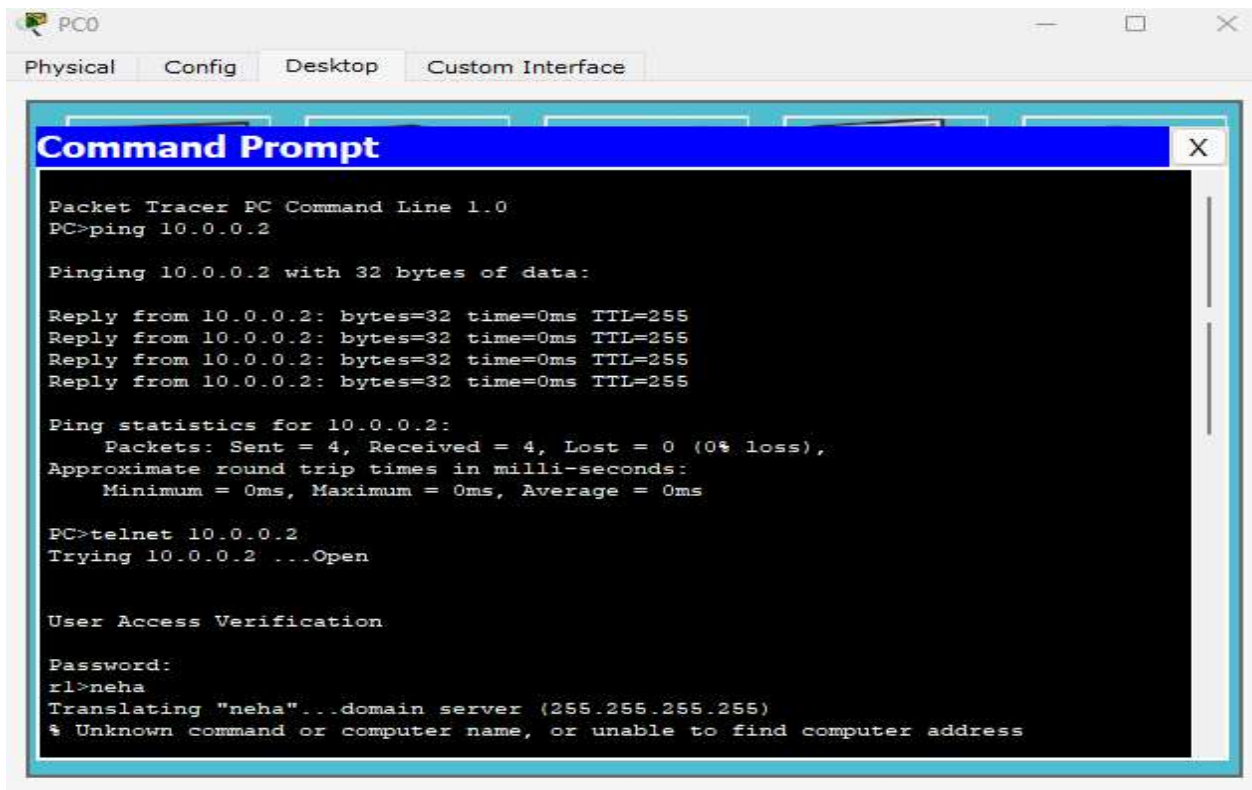
r1(config-line)#login
% Login disabled on line 132, until 'password' is set
% Login disabled on line 133, until 'password' is set
% Login disabled on line 134, until 'password' is set
% Login disabled on line 135, until 'password' is set
r1(config-line)#password chitral
r1(config-line)#exit
r1(config)#exit
r1#
%SYS-5-CONFIG_I: Configured from console by console

r1#wr
Building configuration...
[OK]
r1#

```

At the bottom right, there are "Copy" and "Paste" buttons.

Open command prompt of PC0: ping 10.0.0.2



The screenshot shows the Command Prompt of PC0. The tabs at the top are Physical, Config, Desktop, and Custom Interface. The title bar says "Command Prompt". The command history shows the following:

```

Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.2

Pinging 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255

Ping statistics for 10.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>telnet 10.0.0.2
Trying 10.0.0.2 ...Open

User Access Verification

Password:
r1>neha
Translating "neha"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer address

```

Password for user verification is chitral.  
 Password for enable is neha

Accessing router CLI from PC0:

```

PC0
Physical Config Desktop Custom Interface

Command Prompt
rl>
rl>exit

[Connection to 10.0.0.2 closed by foreign host]
PC>telnet 10.0.0.2
Trying 10.0.0.2 ...Open

User Access Verification

Password:
Password:
rl>enable
Password:
rl#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
rl#
  
```

### **OBSERVATION:**

Telnet is a protocol for remote access to server. It allows command line communications over a network.

The PC is able to send the data to the router and indicates that the gateway is available and connected.