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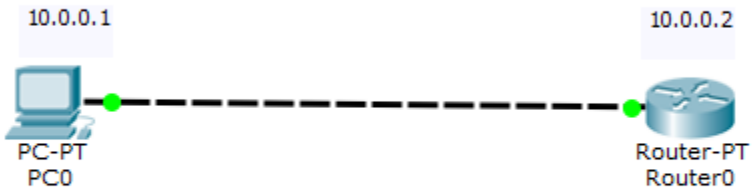
CN LAB 5

AIM: TO UNDERSTAND THE OPERATION OF TELNET BY ACCESSING THE ROUTER PLACED IN THE SERVER ROOM FROM A PC IN IT OFFICE.

TOPOLOGY:



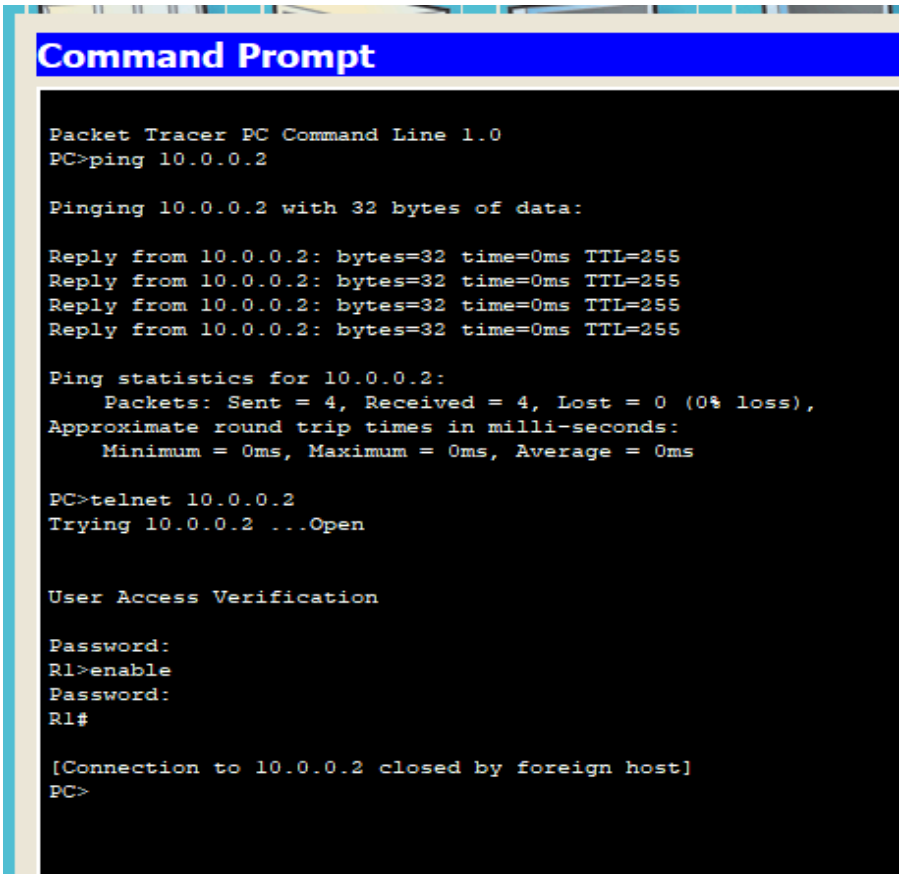
CONNECTION SETUP B/W PC and ROUTER:

```
Router>enable
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface fastethernet0/0
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#no shutdown
```

ROUTER CONFIGURATION FOR SECRET-KEY and PASSWORD:

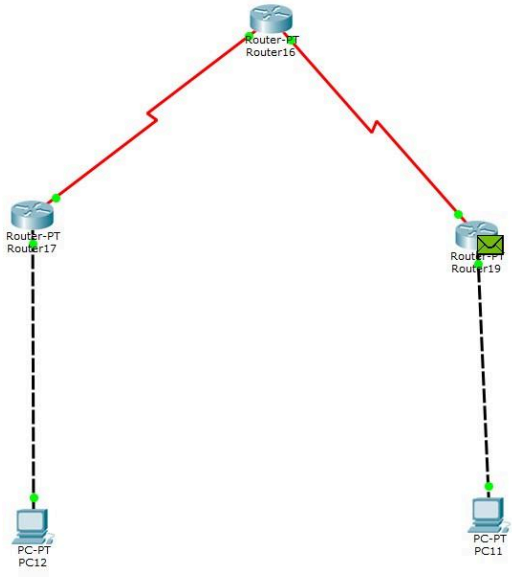
```
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#exit
Router(config)#hostname R1
R1(config)#ebenable secret p0
R1(config)#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 p1
R1(config-line)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#wr
Building configuration...
[OK]
R1#
```

USING TELNET COMMAND:

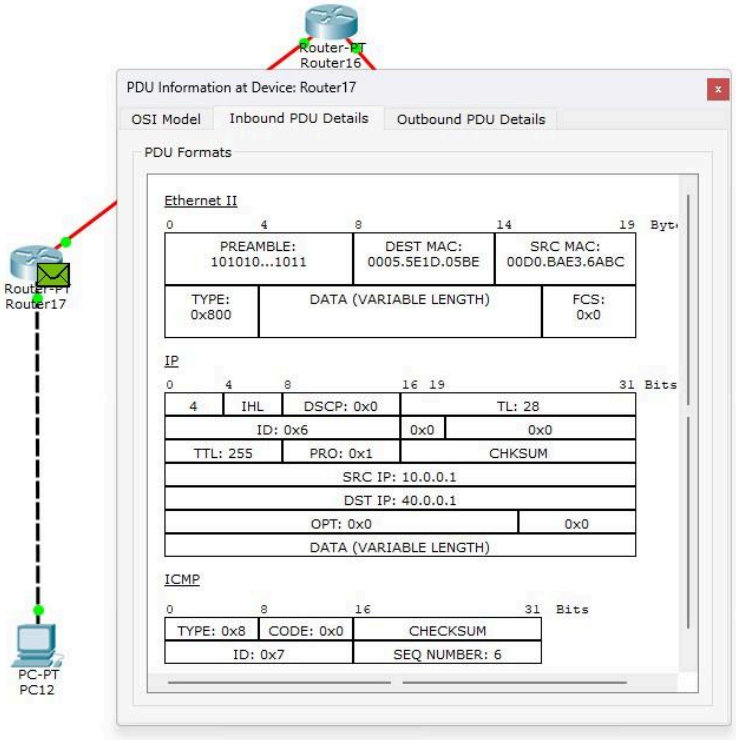


b) TTL CONCEPT

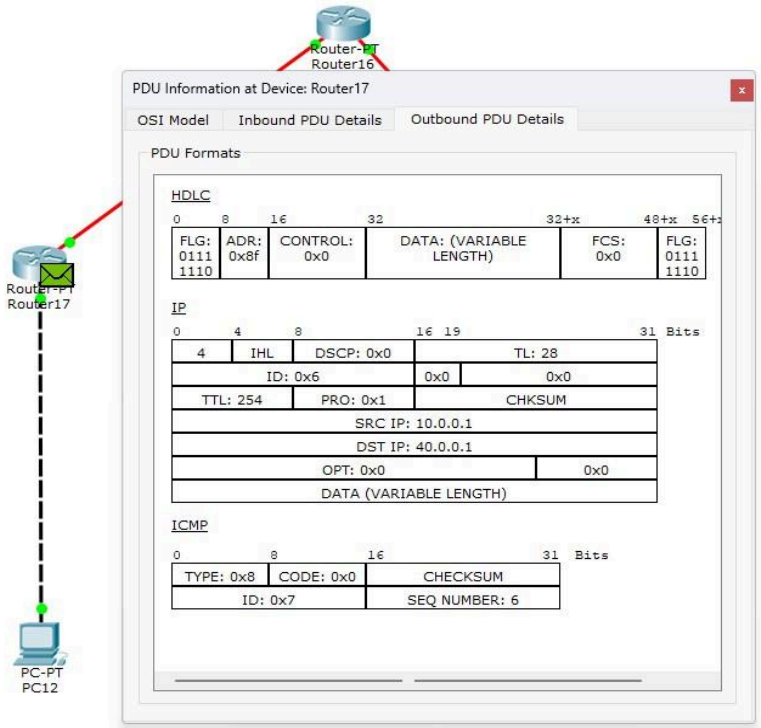
TOPOLOGY:



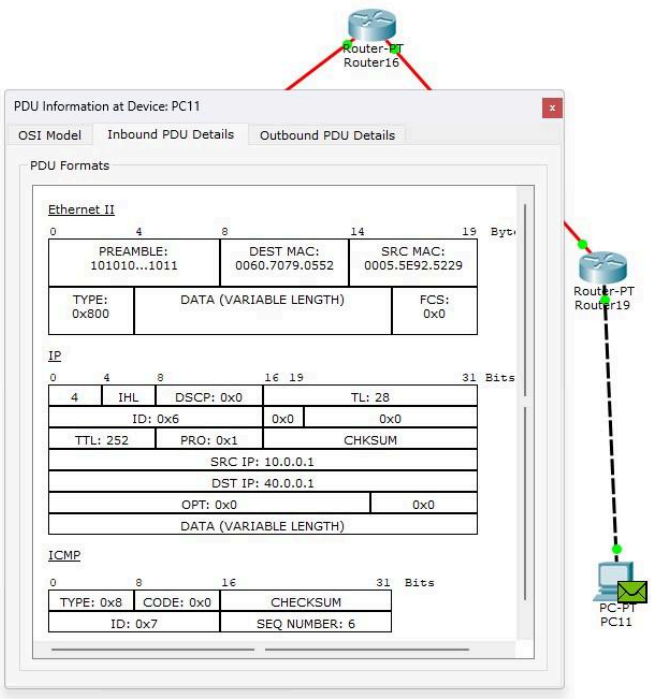
INBOUND FOR ROUTER1:



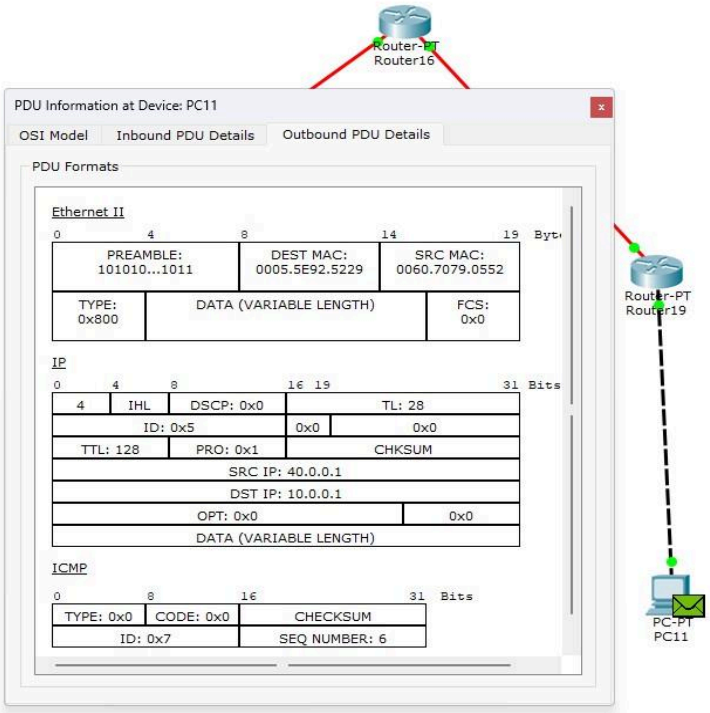
OUTBOUND FOR ROUTER1:



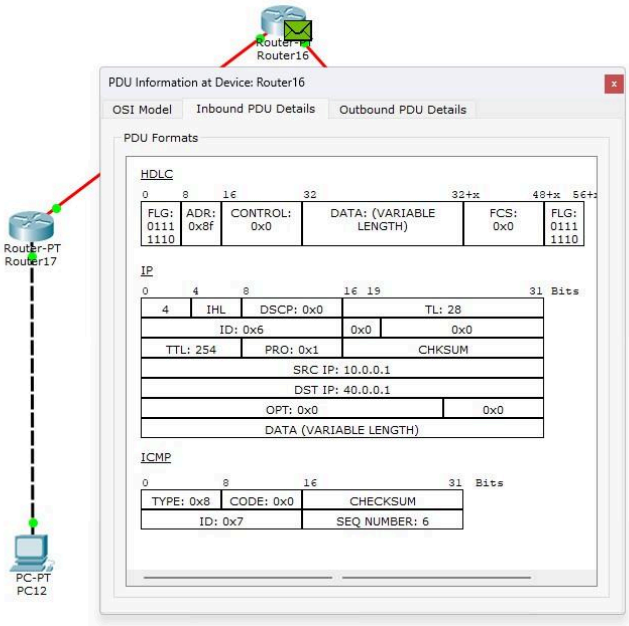
INBOUND FOR PC1:



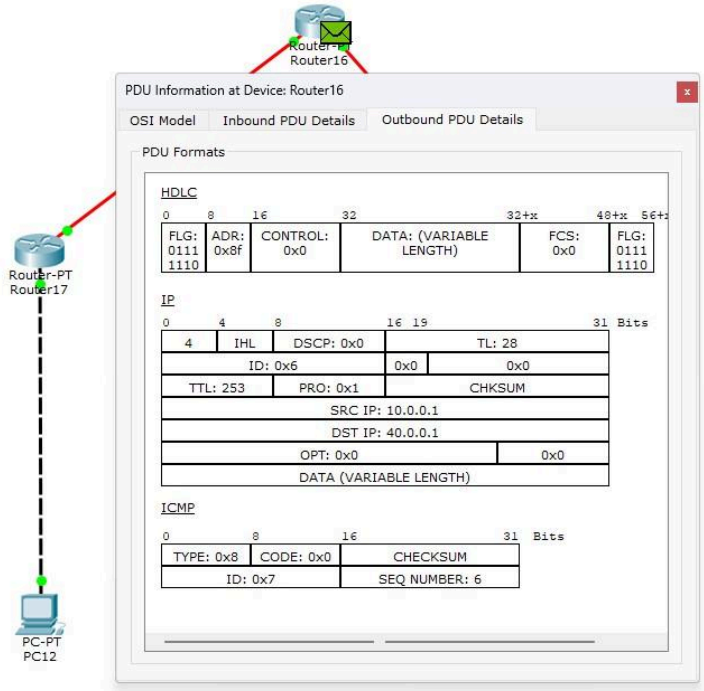
OUTBOUND FOR PC1:



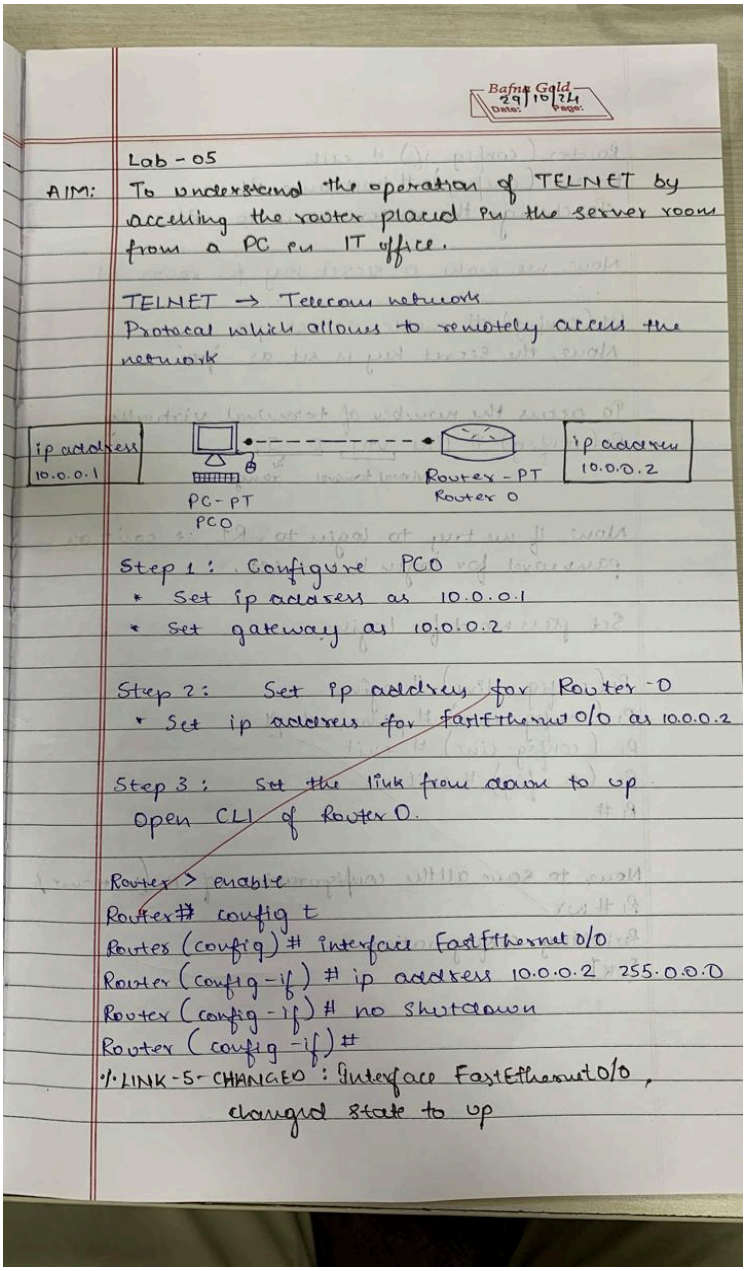
OUTBOUND FOR ROUTER1:



INBOUND FOR ROUTER1:



OBSERVATION: ACCESSING ROUTER USING TELNET:



Lab - 05

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

TELNET → Telecom network
Protocol which allows to remotely access the network

Step 1: Configure PC0
- Set ip address as 10.0.0.1
- Set gateway as 10.0.0.2

Step 2: Set ip address for Router-0
- Set ip address for FastEthernet 0/0 as 10.0.0.2

Step 3: Set the link from down to up
Open CLI of Router 0.

```
Router > enable
Router# config t
Router(config)# interface FastEthernet 0/0
Router(config-if)# ip address 10.0.0.2 255.0.0.0
Router(config-if)# no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0,
        changed state to up
```

```
Router(config-if)# exit
Router(config)# hostname R1
```
To change the router name to R1

Now, we make a secret key for router R1

```
R1(config)# enable secret p0
```
Now, the secret key is set as 'p0'

To access the number of terminal virtually
```
R1(config)# line vty 0 5
```
(vty: virtual terminal; 0 5: range)

Now, if we try to login to R1, it says as password for login is not set.

Set password for login

```
R1(config-line)# login
R1(config-line)# password p1
R1(config-line)# exit
R1(config)# exit
R1#
```

Now, to save all the configurations of R1 (write-mr)
```
R1# wr
Building configuration...
[OK]
```

Bafna Gold
Date: Page:

Step 4: Ping from PC0 to Router 0

• open command prompt in PC0.

>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)

Now, use TELNET to access router R1

PC> telnet 10.0.0.2
Trying 10.0.0.2 .... Open

User Access Verification
Password: p1 // login password
R1> enable
Password: p0 // Secret key
R1#

Observation:
Using TELNET, PC0 can access router R1

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