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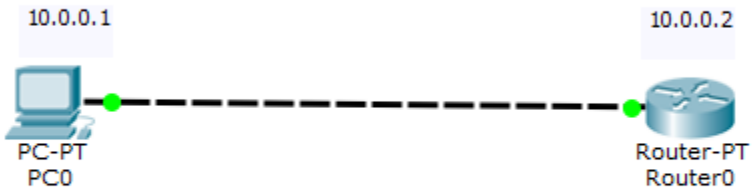
CN LAB 4

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

TOPOLOGY:



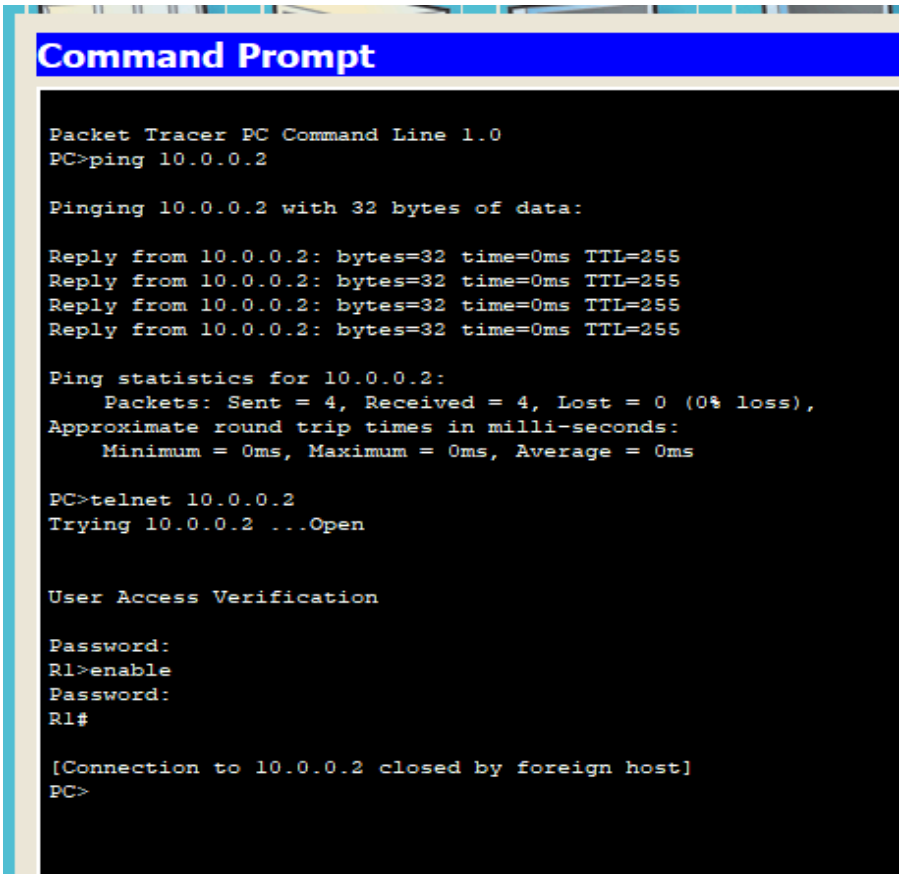
CONNECTION SETUP B/W PC and ROUTER:

```
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:

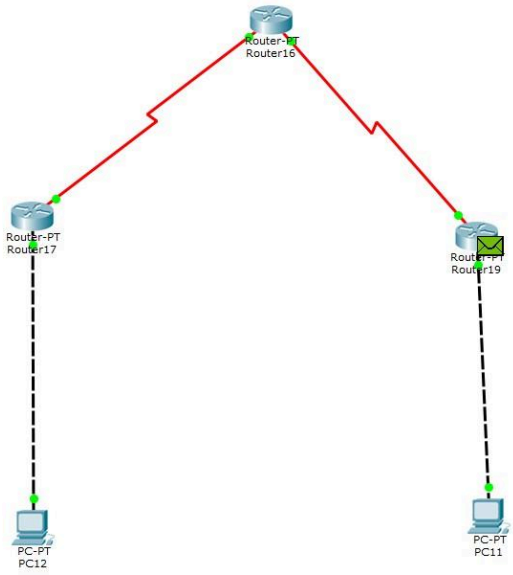
```
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#exit
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:

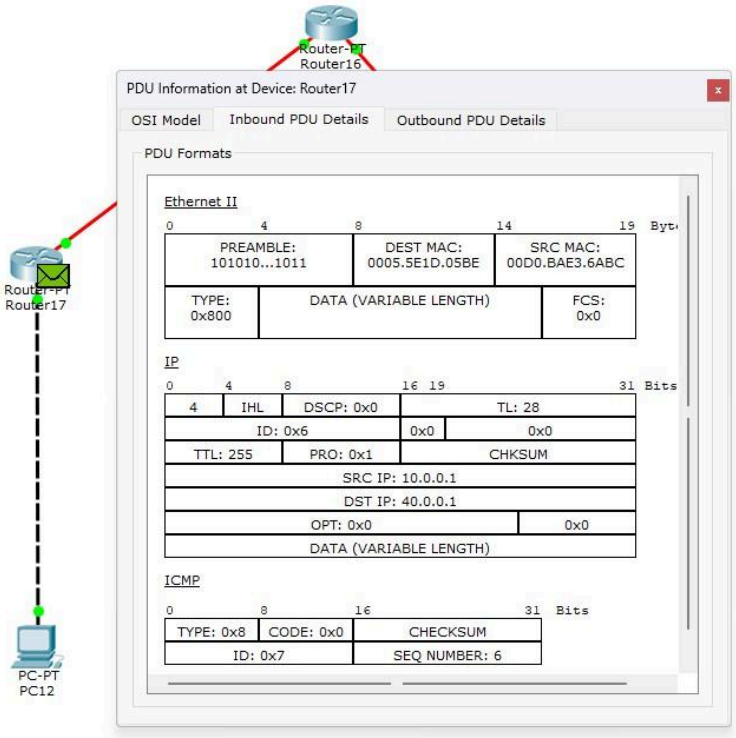


b) TTL CONCEPT

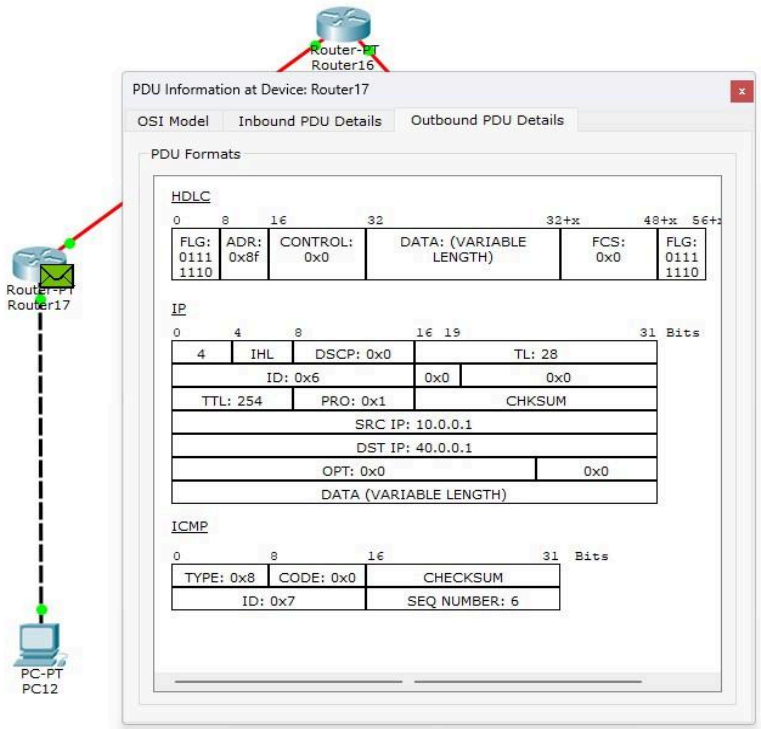
TOPOLOGY:



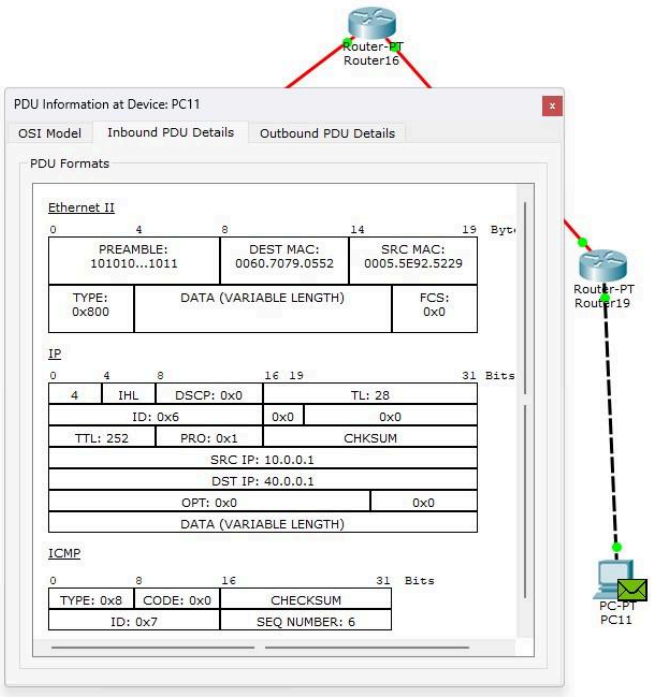
INBOUND FOR ROUTER1:



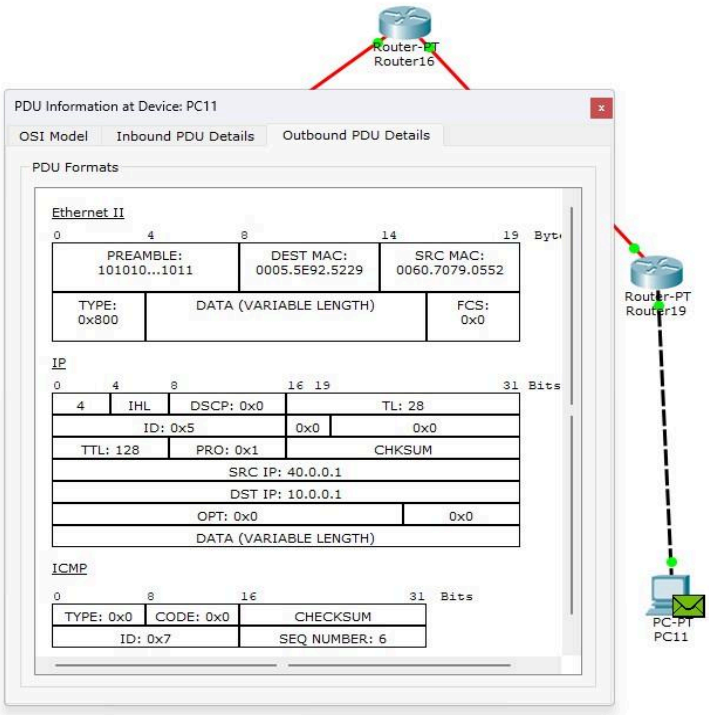
OUTBOUND FOR ROUTER1:



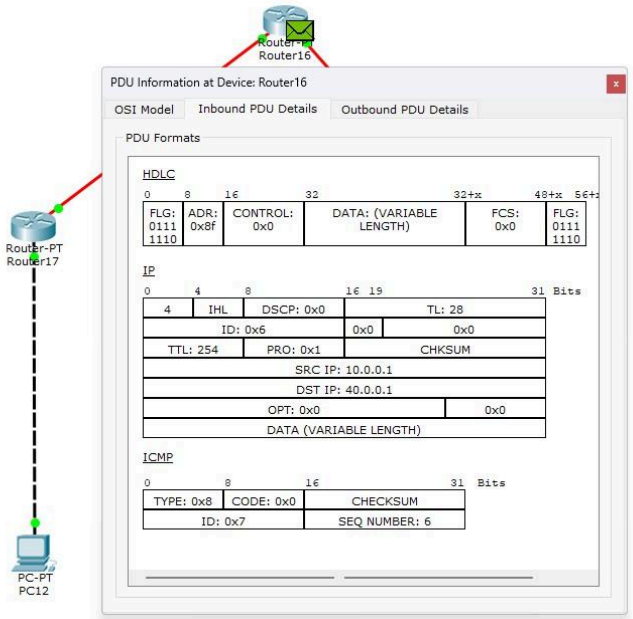
INBOUND FOR PC1:



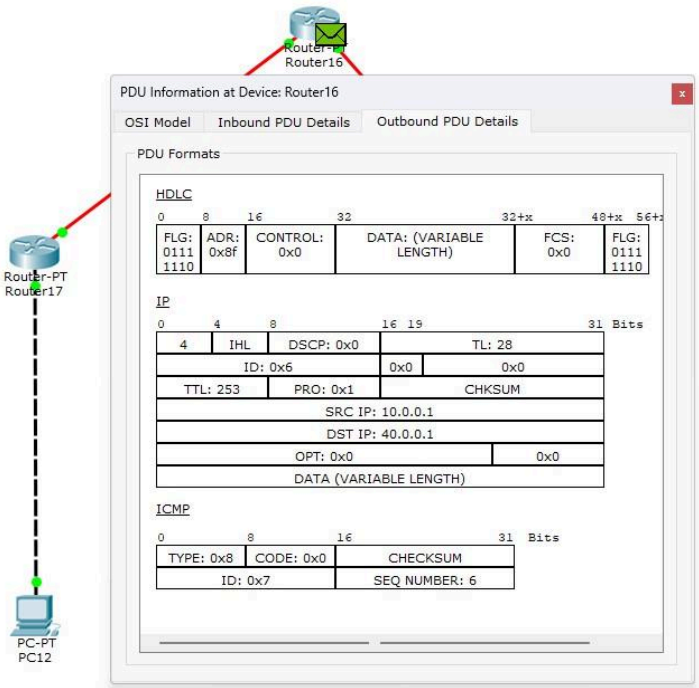
OUTBOUND FOR PC1:



OUTBOUND FOR ROUTER1:



INBOUND FOR ROUTER1:



OBSERVATION: ACCESSING ROUTER USING TELNET:

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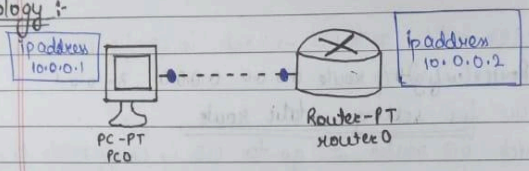
Lab-05

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

- TELNET ⇒ TELECOMM network
  TELE means remote | far | not near.
- Trying to access network which is far using TELNET

Topology :-



Observation :-

Step1 → setup topology and configure Pc and Router :
setting ip addresses of PC and router

1.) click PC0, go to "config" → "ipaddress" → 10.0.0.1
2.) click on router0, go to "config" → "ipaddress" → 10.0.0.2

- Configuring Pc0 and router0 :- (Setting Connection)
  Click on router0 go to ⇒ "CLI" enter commands

```
Router> enable
Router # config t
Router (config)# interface FastEthernet 0/0
Router (config-if)# ip address 10.0.0.1 255.0.0.0
Router (config-if)# no shut down

→ Connection built successfully.
```

Step2 → Using TELNET setting Pc password, secret key, hostname for router.

1.) Click on Router0 go to "CLI" enter command →

```
Router(config-if)# exit
Router (config)# ~~interface~~ hostname R1   [|| changes router name to R1]
R1(config)# enable secret p0   (|| setting secret key)
R1(config)# line vty 0 5   || vty = virtual terminal it is used to set line connection the range 0 to 5 ie for [0,1,2,3,4,5] ids
R1(config-line)# login
R1(config-line)# password p1   (|| setting pswd for secret key)
R1(config-line)# exit
R1(config)# exit
R1#
```

Step3 → Trying to ping msg to router 'R1' and by using secret key and password - enabling router configuration

1.) Click on RouterR1 "go to desktop" → "Command Prompt" & type -

⇒ Input-Output Command prompt :-

```
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
        ||          ||          ||          (x4)

Ping statistics for 10.0.0.2:
    Packets: sent=4, Received=4, lost=0 (0% loss),
                    (|| bcoz of direct connection)
Approx round trip times in ms:
    Min=0ms, Max=0ms, Avg=0ms

PC> ~~telet~~ telnet 10.0.0.2
Trying 10.0.0.2 ..... Open

User Access Verification
Password: __ (|| type p1)
R1> enable
Password: __ (|| enter p0)
R1#
[Connection ~~closed~~ to 10.0.0.2 closed by foreign host].
```

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