

AIM: TO CONFIGURE RIP ROUTING PROTOCOL IN ROUTERS.

OBSERVATION:

Lab-07

Aim:- To configure a RIP routing protocol in Routers.

RIP \Rightarrow Routing Information Protocol.

Topology:-

Configuration

- 1) Add all the generic devices.
- 2) Go to PC0 \rightarrow desktop \rightarrow IP configuration
 add, IP Address = 10.0.0.1
 Subnet Mask = 255.0.0.0
 Default Gateway = 10.0.0.2
- 3) Go to PC1 \rightarrow desktop \rightarrow IP configuration,
 add, IP Address = 20.0.0.1
 Subnet Mask = 255.0.0.0
 Default Gateway = 20.0.0.2
- 4) Go to Router 0 \rightarrow config \rightarrow fastethernet 0/0
 Add \rightarrow IP Address = 10.0.0.2
 Subnet Mask = 255.0.0.0
 port status: check ☒ ON

Then Router \rightarrow 0 (continued) click on Serial 0/0
 Clock Rate = 64000
 IP Address = 30.0.0.1
 Subnet mask = 255.0.0.0
 port status = ☒ ON

Then setting \rightarrow Save

5) Go to Router 1 \rightarrow config \rightarrow fastethernet 0/0
 add, IP Address = 20.0.0.2
 Subnet Mask = 255.0.0.0
 port status = ☒ ON

click, Serial 0/0 \rightarrow Clock Rate = 64000
 IP Address = 30.0.0.2
 Subnet Mask = 255.0.0.0
 Port status = ☒ ON

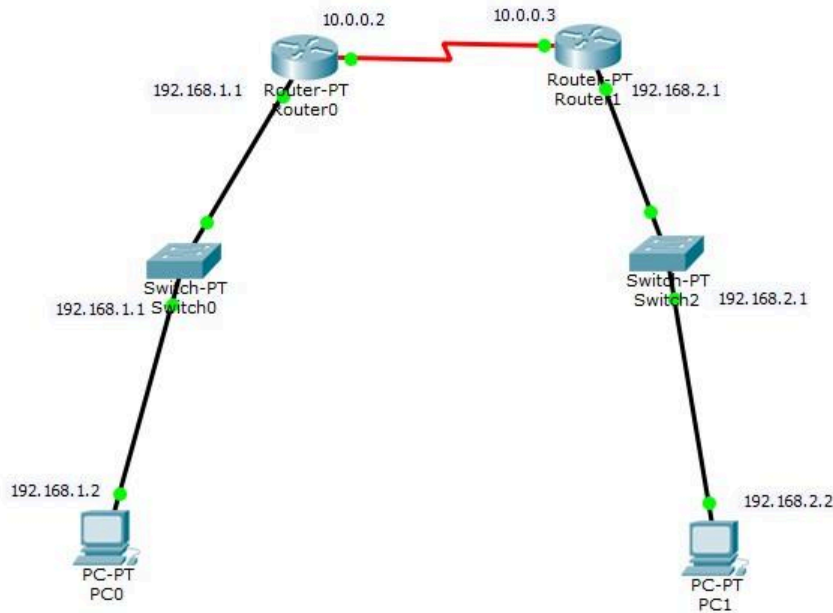
6) ping message from PC0 to PC1 -
Status - Successful

Output \rightarrow Command Prompt

PC> ping 20.0.0.1
 Pinging 20.0.0.1 with 32 bytes of data:

Reply from 20.0.0.1: bytes = 32 time = 4 ms TTL = 124 (x4)
 Ping statistics for 20.0.0.1:
 packets: Sent = 4 Received = 4, lost = 0 (0% loss)

TOPOLOGY:



PC_0 CONFIGURATION:

PC0

Physical Config Desktop Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 10.0.0.1

Subnet Mask: 255.0.0.0

Default Gateway: 10.0.0.2

DNS Server:

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::2D0:D3FF:FE11:5189

IPv6 Gateway:

IPv6 DNS Server:

PC_1 CONFIGURATION:

PC1

Physical Config Desktop Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 20.0.0.1

Subnet Mask: 255.0.0.0

Default Gateway: 20.0.0.2

DNS Server:

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::2D0:BDFF:FE60:3A52

IPv6 Gateway:

IPv6 DNS Server:

ROUTER_0 CONFIGURATION:

Router0

Physical Config CLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0001.97B8.1DC7

IP Configuration

IP Address 10.0.0.2

Subnet Mask 255.0.0.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

Router0

Physical Config CLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial2/0

Port Status ☒ On

Duplex ☒ Full Duplex

Clock Rate 64000

IP Configuration

IP Address 30.0.0.1

Subnet Mask 255.0.0.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
```

Router0

Physical Config CLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

RIP Routing

Network

Network Address

10.0.0.0

30.0.0.0

Add

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#
```

ROUTER_1 CONFIGURATION:

Router1

Physical Config CLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.D357.B530

IP Configuration

IP Address 20.0.0.2

Subnet Mask 255.0.0.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

Router1

Physical Config CLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Serial2/0

Port Status ☒ On

Duplex ☒ Full Duplex

Clock Rate 64000

IP Configuration

IP Address 30.0.0.2

Subnet Mask 255.0.0.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config)#interface Serial2/0
Router(config-if)#
```

Router1

Physical Config CLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

RIP Routing

Network

Add

Network Address

20.0.0.0

30.0.0.0

Remove

Equivalent IOS Commands

```
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#
```

PING COMMAND:

