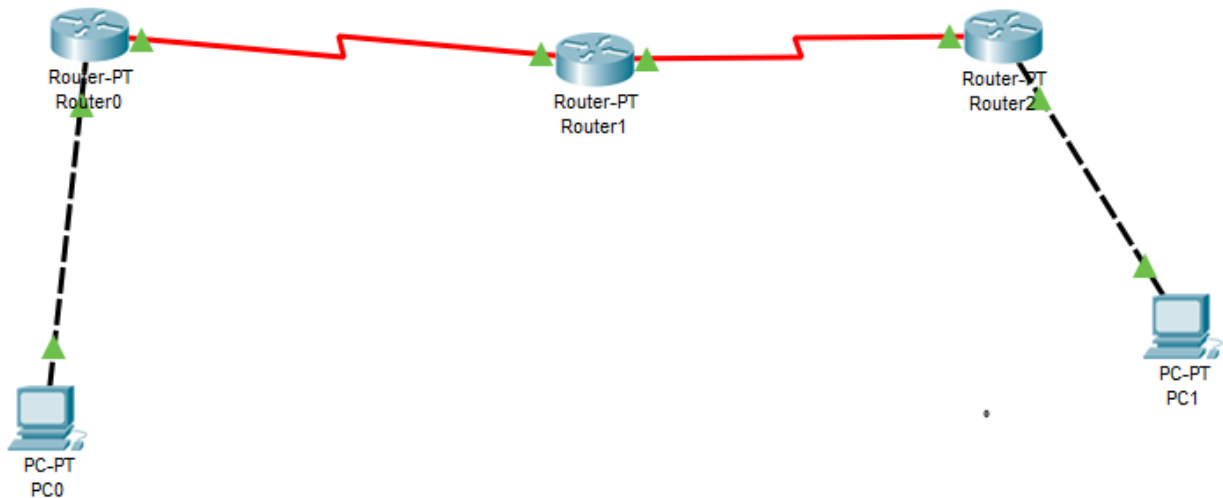


# Configuring RIP Routing Protocol in Routers



Step 1: Create a topology as shown above.

Step 2: Configure IP address for all interfaces and assign IP address, default gateway to hosts

Additional commands :

In Router R0,

R0(config-if)#encapsulation ppp [when configuring R1]

R0(config-if)#clock rate 64000

R0(config-if)#no shutdown

In Router R1,

R1(config-if)#encapsulation ppp [when configuring R0]

R1(config-if)#no shutdown

R1(config-if)#encapsulation ppp [when configuring R2]

R1(config-if)#clock rate 64000

R1(config-if)#no shutdown

In Router R3,

R2(config-if)#encapsulation ppp [when configuring R1]

R2(config-if)#no shutdown

Step 3: Configure RIP to all routers by using command,

In Router R0,

R0(config)#router rip

R0(config-router)#network 10.0.0.0

R0(config-router)#network 20.0.0.0

```
R0(config-router)#exit
```

In Router R1,

```
R1(config)#router rip
```

```
R1(config-router)#network 20.0.0.0
```

```
R1(config-router)#network 30.0.0.0
```

```
R1(config-router)#exit
```

In Router R2,

```
R2(config)#router rip
```

```
R2(config-router)#network 30.0.0.0
```

```
R2(config-router)#network 40.0.0.0
```

```
R2(config-router)#exit
```

Step 4: Now check routing table of route R0. Router will have all network information in its routing table, router learned this route by using RIP.

Step 5: Now ping from host 10.0.0.10 to 40.0.0.10

RIP - Routing Information Protocol Routing Information Protocol is distance vector routing protocol.

- ✓ It knows only neighbors, it doesn't know entire topology
- ✓ Routing by rumors
- ✓ It doesn't support classless network(CIDR)
- ✓ But Rip Version 2 supports CIDR and VLSM It will update routing informations every 30 seconds(Periodic Updates)
- ✓ It sends entire routing table to its neighbor

Rip version 2 supports CIDR(Classless Internet Domain Routing). To configure with rip version 2, just give this command,

```
R0(config)#router rip
```

```
R0(config-router)#version 2
```

```
R0(config-router)#network 10.0.0.0
```

```
R0(config-router)#network 20.0.0.0
```

```
R0(config-router)#exit
```