1.3 – ENSA – Training - PacketKnows – Configuring RIPv2

Objectives

- **Part 1: Configure RIPv2**

- **Part 2: Verify Configurations**

NOTE

- **Power all the devices first by clicking the triangle button on the upper navbar.**
- **Right click the device then click the web console first to configure on the device**
- **Always type "save" when configuring IP addresses of PC's**

Background

Although RIP is rarely used in modern networks, it is useful as a foundation for understanding basic network routing. In this activity, you will configure a default route, RIP version 2, with appropriate network statements and passive interfaces, and verify full connectivity.

Part 1: Configure RIPv2

Step 1: Configure RIPv2 on R1.

a. Use the appropriate command to create a default route on **R1** for all Internet traffic to exit the network through fa0/1.

R1(config)# ip route 0.0.0.0 0.0.0.0 fa0/1

b. Enter RIP protocol configuration mode.

R1(config)# router rip

c. Use version 2 of the RIP protocol and disable the summarization of networks.

R1(config-router)# version 2

R1(config-router)# no auto-summary

d. Configure RIP for the networks that connect to R1.

R1(config-router)# network 192.168.1.0

R1(config-router)# network 192.168.2.0

e. Advertise the default route configured in step 1a with other RIP routers.

R1(config-router)# default-information originate

f. Save the configuration.

Step 2: Configure RIPv2 on R2.

a. Enter RIP protocol configuration mode.

R2(config)# router rip

b. Use version 2 of the RIP protocol and disable the summarization of networks.

R2(config-router)# version 2

R2(config-router)# no auto-summary

c. Configure RIP for the networks directly connected to **R2**.

R2(config-router)# network 192.168.2.0

R2(config-router)# network 192.168.3.0

R2(config-router)# network 192.168.4.0

d. Save the configuration.

R2(config)# Copy running-config startup-config

Step 3: Configure RIPv2 on R3

Repeat Step 2 on **R3**.

R3(config)# router rip

R3(config-router)# version 2

R3(config-router)# no auto-summary

R3(config-router)# network 192.168.4.0

R3(config-router)# network 192.168.5.0

R3(config-router)# passive-interface gig 0/0

Part 2: Verify Configurations

Step 1: View routing tables of R1, R2, and R3.

a. Use the appropriate command to show the routing table of **R1**. RIP (R) now appears with connected (C) and local (L) routes in the routing table. All networks have an entry. You also see a default route listed.

b. View the routing tables for **R2** and **R3**. Notice that each router has a full listing of all the 192.168.x.0 networks and a default route.

```
R1 configuration

interface FastEthernet0/0

 ip address 192.168.1.1 255.255.255.0

no shutdown


interface Serial0/0

 ip address 192.168.2.1 255.255.255.0

no shutdown


ip route 0.0.0.0 0.0.0.0 fa0/0

router rip

version 2

no auto-summary
```

```
default-information originate

network 192.168.1.0

network 192.168.2.0


end

copy running-config startup-config
```

```
R2 configuration

interface FastEthernet0/0

 ip address 192.168.3.1 255.255.255.0

no shutdown


interface Serial0/0

 ip address 192.168.2.2 255.255.255.0

no shutdown


interface Serial0/1

 ip address 192.168.4.2 255.255.255.0

no shutdown


router rip

version 2
```

```
no auto-summary

network 192.168.2.0

network 192.168.3.0

network 192.168.4.0


end

copy running-config startup-config
```

```
R3 configuration

interface FastEthernet0/0

 ip address 192.168.5.1 255.255.255.0

 no shutdown


interface Serial0/1

 ip address 192.168.4.1 255.255.255.0

no shutdown


router rip

version 2

no auto-summary

network 192.168.4.0

network 192.168.5.0
```

```
end

copy running-config startup-config
```