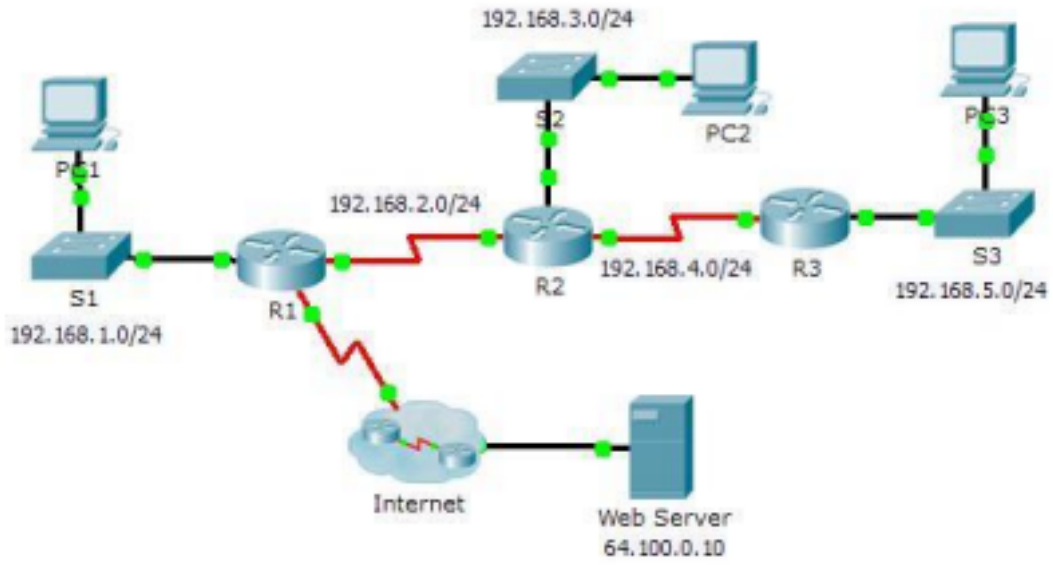
Packet Tracer – Configuring RIPv2

Topology



Objectives

Part 1: Configure RIPv2

Part 2: Verify Configurations

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 S0/0/1.

```
R1(config)# ip route 0.0.0.0 0.0.0.0 s0/0/1
```

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. Configure the LAN port that contains no routers so that it does not send out any routing information.

```
R1(config-router)# passive-interface gig 0/0
```

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

```
R1(config-router)# default-information originate
```

g. Save the configuration.

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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. Configure the interface that contains no routers so that it does not send out routing information.

```
R2(config-router)# passive-interface gig 0/0
```

e. Save the configuration.

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 0/0/0
```

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.

Step 2: Verify full connectivity to all destinations.

Every device should now be able to ping every other device inside the network. In addition, all devices should be able to ping the **Web Server**.

