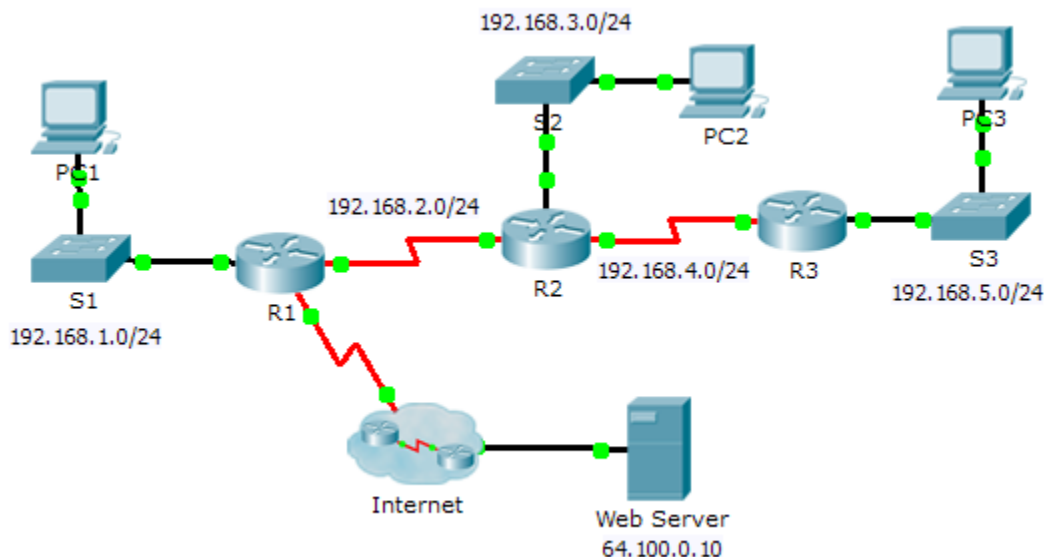# Packet Tracer – Configuring RIPv2

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.   *ip route 0.0.0.0 0.0.0.0 S0/0/1*

b. Enter RIP protocol configuration mode.   *config t => router rip*

c. Use version 2 of the RIP protocol and disable the summarization of networks.   *command is actually "version 2", then "no auto-summary" to remove summarization*

d. Configure RIP for the networks that connect to **R1**.   *show ip route connected then type "network [ip addrtess]"*

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

f. Advertise the default route configured in step 1a with other RIP routers.   *(LAN port on R1)*   *default-information originate*

Show ip route. You will see the ip address for the port listed - 192.168.1.0 You also see in Packet Tracer window that there is only one (black) ethernet cable. config t, router rip => Set "passive-interface [connection e.g. G0/0]"

g. Save the configuration.   *copy start run*

Note: configure while in "config t" mode. add "do" with command to execute command i.e. do show ip interface

Step 2: Configure RIPv2 on R2.

a. Enter RIP protocol configuration mode.

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

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

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

e. Save the configuration.

Step 3: Configure RIPv2 on R3

Repeat Step 2 on **R3**.

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. You'll see that R1 has a Static (S) default route, R2 and R3 are RIP (R) as they were learned through RIP. R1 is the router advertising the default route (it's directly connected to the Internet which is where the default route should go), the others learned dynamically.

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**.

C is "Connected" ip address which is how you connect to the Local (L) ip address