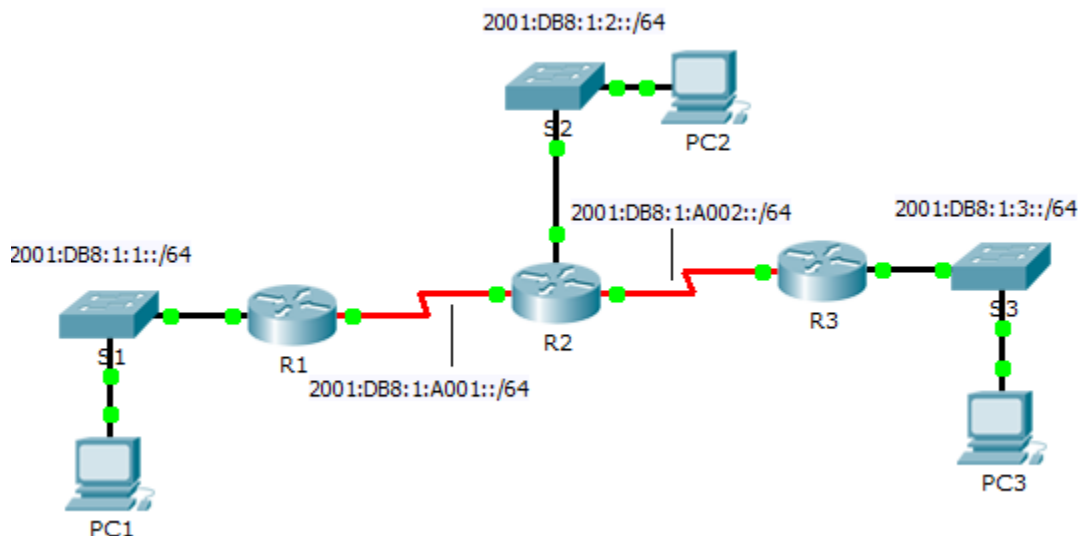


Packet Tracer – Configuring RIPng

Topology



Addressing Table

Device	Interface	IPv6 Address/Prefix
R1	G0/0	2001:DB8:1:1::1/64
	S0/0/0	2001:DB8:1:A001::1/64
R2	G0/0	2001:DB8:1:2::1/64
	S0/0/0	2001:DB8:1:A001::2/64
	S0/0/1	2001:DB8:1:A002::1/64
R3	G0/0	2001:DB8:1:3::1/64
	S0/0/1	2001:DB8:1:A002::2/64

Objectives

Part 1: Configure RIPng

Part 2: Verify Configurations and Connectivity

Background

RIPng (RIP Next Generation) is a distance vector routing protocol for routing IPv6 addresses. RIPng is based on RIPv2 and has the same administrative distance and 15 hop limitation. This activity will help you become more familiar with RIPng.

Part 1: Configure RIPng

Step 1: Configure RIPng on R1.

- a. Enable IPv6 routing on R1.
R1(config)# **ipv6 unicast-routing**
- b. Enter RIPng protocol configuration mode.
R1(config)# **ipv6 router rip CISCO**
- c. Enable RIPng for the networks that connect to R1.
R1(config-rtr)# **int g0/0**
R1(config-if)# **ipv6 rip CISCO enable**
R1(config-if)# **int s0/0/0**
R1(config-if)# **ipv6 rip CISCO enable**
- d. Save the configuration.

Step 2: Configure RIPng on R2 and R3

Repeat Step 1a to Step 1d on R2 and R3.

Part 2: Verify Configurations and Connectivity

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

- a. Use the appropriate command to view the routing table for R1. RIPng (R) now appear with connected (C) and local (L) routes in the routing table. All networks have an entry.
- b. Verify that the appropriate interfaces are using RIPng.
R1# **show ipv6 protocols**
- c. View the running configuration of R1. RIPng entries are present.
- d. Repeat Step 1a to Step 1c with R2 and R3 to verify that they were properly configured.

Step 2: Verify full connectivity.

Every device should now be able to ping every other device. If not, review your configurations for errors and implement appropriate solutions.