

## RIP Next Generation (RIPng)

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### Chapter Information

## Contents

1. Implementing RIP Next Generation
2. [Verifying and Troubleshooting RIPng](#)
3. [Configuration Example: RIPng](#)

## From the Book



[CCNA Routing and Switching Portable Command Guide \(ICND1 100-105, ICND2 200-105, and CCNA 200-125\), 4th Edition](#)

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This chapter provides information and commands concerning the following topics:

- Implementing RIP Next Generation
- Verifying and troubleshooting RIPng
- Configuration example: RIPng

### NOTE

For an excellent overview of IPv6, I strongly recommend you read Rick Graziani's book from Cisco Press: *IPv6 Fundamentals: A Straightforward Approach to Understanding IPv6*.

### Implementing RIP Next Generation

This section shows how to implement RIP Next Generation (RIPng) on a router.

**Router(config)#ipv6 unicast-routing** Enables the forwarding of IPv6 unicast datagrams globally on the router.

**Router(config)#interface serial0/0/0** Moves to interface configuration mode.

**Router(config-if) #ipv6 rip TOWER enable** Creates the RIPng process named TOWER and enables RIPng on the interface.

### NOTE

Unlike RIPv1 and RIPv2, where you needed to create the RIP routing process with the **router rip** command and then use the **network** command to specify the interfaces on which to run RIP, the RIPng process is created automatically when RIPng is enabled on an interface with the **ipv6 rip name enable** command.

### TIP

Be sure that you do not misspell your process name. If you do misspell the name, you will inadvertently create a second process with the misspelled name.

**NOTE**

Cisco IOS Software automatically creates an entry in the configuration for the RIPng routing process when it is enabled on an interface.

**NOTE**

The **ipv6 router rip *process-name*** command is still needed when configuring optional features of RIPng.

**NOTE**

The routing process name does not need to match between neighbor routers.

```
Router(config)#ipv6  
router rip TOWER
```

Creates the RIPng process named TOWER if it has not already been created and moves to router configuration mode.

```
Router(config-rtr)  
#maximum-paths 2
```

Defines the maximum number of equal-cost routes that RIPng can support.

**NOTE**

The number of paths that can be used is a number from 1 to 64. The default is 4.

```
Router(config-if)#ipv6  
rip tower default-  
information originate
```

Announces the default route along with all other RIPng routes.

```
Router(config-if) #ipv6  
rip tower default-  
information only
```

Announces only the default route. Suppresses all other RIPng routes.

2. Verifying and Troubleshooting RIPng | [Next Section](#)

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