

Routing Information Protocol (RIPv2) Properties Configuration on SG500X Series Stackable Switches

Objective

Routing Information Protocol (RIP) is a distance-vector protocol for local and wide-area networks. It classifies routers as either active or passive. Active routers advertise their routes to others while passive routers listen to other devices, and update their routes based on advertisements, but do not advertise. Routers typically run RIP in active mode while hosts use passive mode. RIP is an Interior Gateway Protocol (IGP).

RIPv2 is an enhancement of RIPv1. RIPv2 is a classless protocol and RIPv1 is a class based protocol. RIPv2 has password authentication while RIPv1 does not have password authentication. RIPv2 uses multicast and RIPv1 uses broadcast.

This article explains how to configure RIPv2 properties on the SG500X Series Stackable Switches.

Applicable Devices

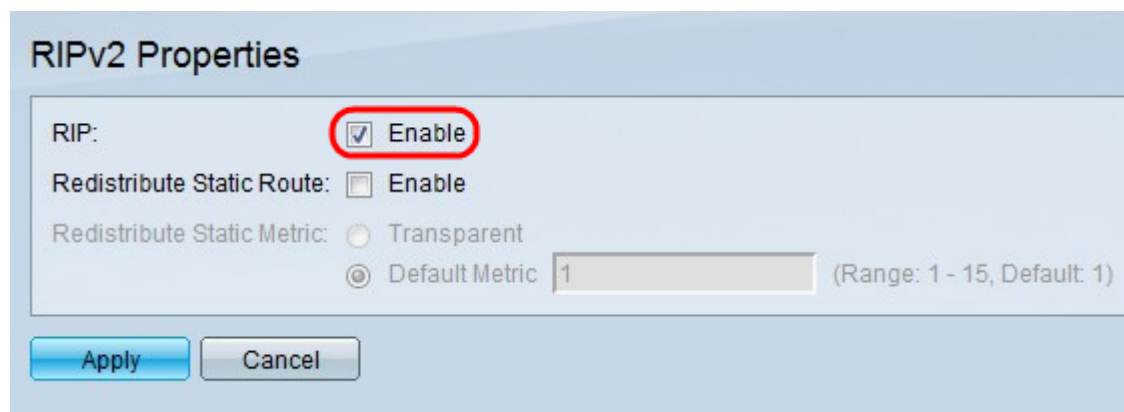
- SG500X Series Stackable Switches

Software Version

- 1.2.7.76

RIPv2 Properties Configuration

Step 1. Log in to the web configuration utility, and choose **IP Configuration > RIPv2 > RIPv2 Properties**. The *RIPv2 Properties* page opens:



RIPv2 Properties

RIP: ☒ Enable

Redistribute Static Route: ☐ Enable

Redistribute Static Metric: ☐ Transparent ☒ Default Metric

Default Metric: (Range: 1 - 15, Default: 1)

Apply Cancel

Step 2. Check the **Enable** check box to enable RIP on the switch.

The image shows the 'RIPv2 Properties' dialog box. The 'RIP:' checkbox is checked and labeled 'Enable'. The 'Redistribute Static Route:' checkbox is also checked and labeled 'Enable', and this entire row is highlighted with a red rectangle. The 'Redistribute Static Metric:' section has two radio buttons: 'Transparent' (unselected) and 'Default Metric' (selected). To the right of the 'Default Metric' radio button is a text input field containing the number '1'. A note in parentheses indicates '(Range: 1 - 15, Default: 1)'. At the bottom of the dialog are two buttons: 'Apply' and 'Cancel'.

Step 3. Check **Enable** in the Redistribute Static Route field to allow static routes to be redistributed by RIP. Redistribution is necessary in a network that runs more than one routing protocol. More than one routing protocol on a network is necessary when two companies running different routing protocols merge, or when different departments are handled by different network administrators. If this feature is enabled, rejected routes are advertised by routes with a metric of 16. The metric in RIP is based upon the hop count, which is the total number of devices the data will pass through. The maximum hop count that the RIP routes travels is 15, so the metric of 16 means that the route is unreachable.

The image shows the 'RIPv2 Properties' dialog box. The 'RIP:' checkbox is checked and labeled 'Enable'. The 'Redistribute Static Route:' checkbox is also checked and labeled 'Enable'. The 'Redistribute Static Metric:' section has two radio buttons: 'Transparent' (unselected) and 'Default Metric' (selected). This entire section, including the radio buttons and the text input field containing '1', is highlighted with a red rectangle. A note in parentheses indicates '(Range: 1 - 15, Default: 1)'. At the bottom of the dialog are two buttons: 'Apply' and 'Cancel'.

Step 4. Click the radio button that corresponds with the desired static metric type in the Redistribute Static Metric field.

- Transparent — RIP uses the routing table metric for the propagated static route configuration.
- Default Metric — Enter the metric value for the propagated static route configuration. The metric is based upon the hop count, which is the total number of devices the data can pass through.

The image shows the 'RIPv2 Properties' dialog box. The 'RIP:' checkbox is checked and labeled 'Enable'. The 'Redistribute Static Route:' checkbox is also checked and labeled 'Enable'. The 'Redistribute Static Metric:' section has two radio buttons: 'Transparent' (unselected) and 'Default Metric' (selected). To the right of the 'Default Metric' radio button is a text input field containing the number '1'. A note in parentheses indicates '(Range: 1 - 15, Default: 1)'. At the bottom of the dialog are two buttons: 'Apply' and 'Cancel'. The 'Apply' button is highlighted with a red rectangle.

Step 5. Click **Apply**.

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