

Configure Dynamic Routing Information Protocol (RIP) on an RV132W and RV134W Router

Objective

Routing Information Protocol (RIP) is an Interior Gateway Protocol (IGP) that is commonly used in internal networks. It prevents routing loops by limiting the number of hops allowed on a path from source to destination. RIP allows a hop count of 15, before considering the destination unreachable. By default, RIP sends updates every 30 seconds. Being one of the oldest routing protocols, RIP is typically used in networks that use legacy devices.

This article aims to show you how to configure RIP on an RV132W or RV134W Router.

Applicable Devices

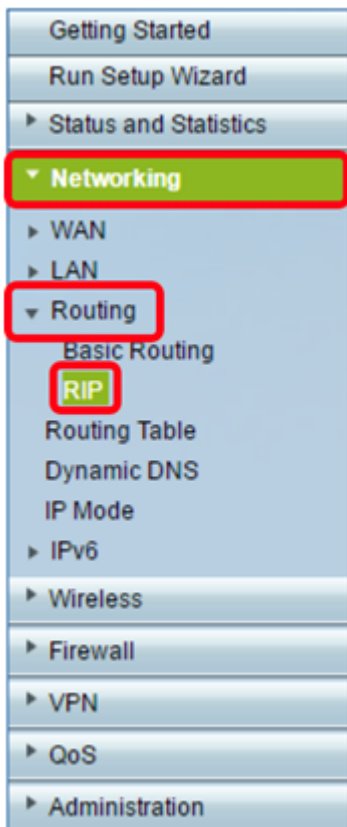
- RV132W
- RV134W

Software Version

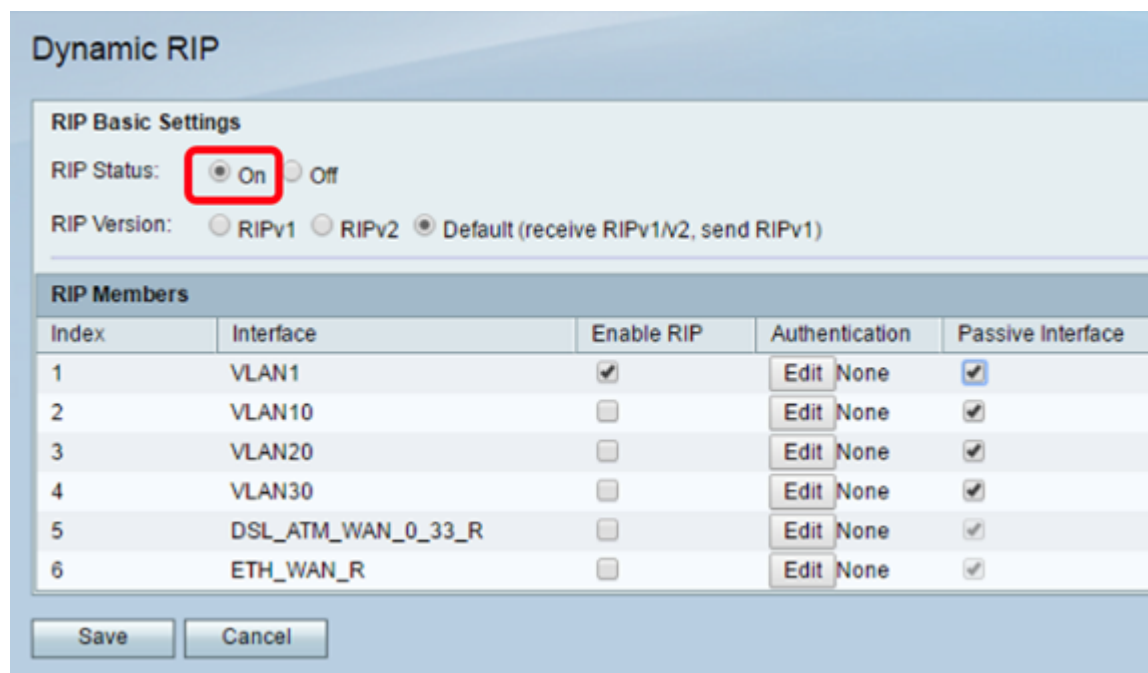
- 1.0.0.17 — RV132W
- 1.0.0.21 — RV134W

Configure RIP

Step 1. Log in to the web-based utility and click **Networking > Routing > RIP**.



Step 2. In the RIP Basic Settings area, click **On** for RIP Status.



Step 3. Choose the RIP Version by choosing the appropriate radio button.

The options are:

- RIPv1 — a classful routing protocol that does not support Variable Length Subnet Masking (VLSM). RIPv1 uses a broadcast address to send advertisements.
- RIPv2 — a classless routing protocol that supports VLSM. RIPv2 uses 224.0.0.9 for periodic multicasts.
- Default (receive RIPv1/v2, send RIPv1) — receives RIPv1 and v2 updates but sends out

RIPv1 updates only.

Note: In this example, RIP Version is left at its Default (receive RIPv1/v2, send RIPv1) setting.

The screenshot shows the 'Dynamic RIP' configuration window. Under 'RIP Basic Settings', 'RIP Status' is set to 'On' and 'RIP Version' is set to 'Default (receive RIPv1/v2, send RIPv1)'. The 'RIP Members' table lists six interfaces with their respective 'Enable RIP' and 'Passive Interface' checkboxes.

Index	Interface	Enable RIP	Authentication	Passive Interface
1	VLAN1	<input checked="" type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
2	VLAN10	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
3	VLAN20	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
4	VLAN30	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
5	DSL_ATM_WAN_0_33_R	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
6	ETH_WAN_R	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>

Step 4. (Optional) In the RIP Members area, check the check box under Enable RIP on any of the available interfaces.

Note: In this example, RIP is enabled only on VLAN1.

This screenshot is identical to the previous one, but the 'Enable RIP' checkbox for the first interface, 'VLAN1', is now checked and circled in red.

Index	Interface	Enable RIP	Authentication	Passive Interface
1	VLAN1	<input checked="" type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
2	VLAN10	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
3	VLAN20	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
4	VLAN30	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
5	DSL_ATM_WAN_0_33_R	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
6	ETH_WAN_R	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>

Step 5. (Optional) Under Authentication, click **Edit** to implement RIP authentication settings for an interface.

Dynamic RIP

RIP Basic Settings

RIP Status: On Off

RIP Version: RIPv1 RIPv2 Default (receive RIPv1/2, send RIPv1)

RIP Members

Index	Interface	Enable RIP	Authentication	Passive Interface
1	VLAN1	<input checked="" type="checkbox"/>	<input type="radio"/> None <input type="radio"/> Simple Password Authentication <input type="radio"/> MD5 Authentication	<input checked="" type="checkbox"/>
2	VLAN10	<input type="checkbox"/>	<input type="radio"/> None <input type="radio"/> Simple Password Authentication <input type="radio"/> MD5 Authentication	<input checked="" type="checkbox"/>
3	VLAN20	<input type="checkbox"/>	<input type="radio"/> None <input type="radio"/> Simple Password Authentication <input type="radio"/> MD5 Authentication	<input checked="" type="checkbox"/>
4	VLAN30	<input type="checkbox"/>	<input type="radio"/> None <input type="radio"/> Simple Password Authentication <input type="radio"/> MD5 Authentication	<input checked="" type="checkbox"/>
5	DSL_ATM_WAN_0_33_R	<input type="checkbox"/>	<input type="radio"/> None <input type="radio"/> Simple Password Authentication <input type="radio"/> MD5 Authentication	<input checked="" type="checkbox"/>
6	ETH_WAN_R	<input type="checkbox"/>	<input type="radio"/> None <input type="radio"/> Simple Password Authentication <input type="radio"/> MD5 Authentication	<input checked="" type="checkbox"/>

Save Cancel

Step 6. Choose the Authentication type by clicking the corresponding radio button and then enter the password.

The options are:

- None — Choose this option to disable authentication.
- Simple Password Authentication — choose this option to implement simple password authentication. You need to enter the password in the password field. A password of 1 to 16 characters can be used with this setting.
- MD5 Authentication — choose this option to use the MD5 authentication method.
- MD5 Key ID — Enter a value from 1 to 255. The default value is 1.
- MD5 Auth Key — Enter the MD5 authentication key. This can be 1 to 64 characters in length.

Note: In this example, Simple Password Authentication is chosen.

RIP Authentication Settings

Authentication: None Simple Password Authentication MD5 Authentication

(Length: 1 to 16 characters)

MD5 Key ID (Range: 1 - 255, Default: 1)

MD5 Auth Key (Length: 1 to 64 characters)

Save Cancel

Step 7. Click **Save**.

RIP Authentication Settings

Authentication: None

Simple Password Authentication (Length: 1 to 16 characters)

MD5 Authentication

MD5 Key ID (Range: 1 - 255, Default: 1)

MD5 Auth Key (Length: 1 to 64 characters)

Step 8. (Optional) Under Passive Interface, check the check box that corresponds to the appropriate interface. This stops incoming and outgoing updates.

Dynamic RIP

RIP Basic Settings

RIP Status: On Off

RIP Version: RIPv1 RIPv2 Default (receive RIPv1/V2, send RIPv1)

RIP Members				
Index	Interface	Enable RIP	Authentication	Passive Interface
1	VLAN1	<input checked="" type="checkbox"/>	<input type="button" value="Edit"/> None	<input checked="" type="checkbox"/>
2	VLAN10	<input type="checkbox"/>	<input type="button" value="Edit"/> None	<input checked="" type="checkbox"/>
3	VLAN20	<input type="checkbox"/>	<input type="button" value="Edit"/> None	<input checked="" type="checkbox"/>
4	VLAN30	<input type="checkbox"/>	<input type="button" value="Edit"/> None	<input checked="" type="checkbox"/>
5	DSL_ATM_WAN_0_33_R	<input type="checkbox"/>	<input type="button" value="Edit"/> None	<input checked="" type="checkbox"/>
6	ETH_WAN_R	<input type="checkbox"/>	<input type="button" value="Edit"/> None	<input checked="" type="checkbox"/>

Step 9. Click **Save**.

Dynamic RIP

RIP Basic Settings

RIP Status: On Off

RIP Version: RIPv1 RIPv2 Default (receive RIPv1v2, send RIPv1)

RIP Members

Index	Interface	Enable RIP	Authentication	Passive Interface
1	VLAN1	<input checked="" type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
2	VLAN10	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
3	VLAN20	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
4	VLAN30	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
5	DSL_ATM_WAN_0_33_R	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>
6	ETH_WAN_R	<input type="checkbox"/>	Edit None	<input checked="" type="checkbox"/>

[Save](#) [Cancel](#)

You should now have successfully configured RIP on your RV132W or RV134W Router.