

# **RSVP** over UDP

The Resource Reservation Protocol (RSVP) over UDP feature provides the capability for routers to enable neighbor routers to process and send RSVP control packets over UDP. With the implementation of the RSVP over UDP feature, the RSVP protocol stack is enhanced to support processing of RSVP control messages over UDP and raw IP.

- Finding Feature Information, page 1
- Prerequisites for RSVP Over UDP, page 1
- Information About RSVP over UDP, page 2
- How to Configure RSVP over UDP, page 2
- Configuration examples for RSVP over UDP, page 4
- Additional References, page 5
- Feature Information for RSVP over UDP, page 5

## **Finding Feature Information**

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see **Bug Search** Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

### Prerequisites for RSVP Over UDP

- You must enable RSVP before you enable the RSVP over UDP feature.
- The RSVP stack running on the client host must support sending and receiving the RSVP control messages with the first hop routers they are connected to.

## **Information About RSVP over UDP**

### **RSVP** over UDP

The RSVP over UDP feature addresses the following scenarios:

- A router intends to communicate to the first hop router over UDP but not raw IP.
- A firewall that is located in between two routers drops raw IP packets due to security concerns, but allows UDP packets.

## How to Configure RSVP over UDP

### **Enabling RSVP**

This task starts RSVP and sets the bandwidth and single-flow limits. By default, RSVP is disabled so that it is backward compatible with systems that do not implement RSVP. To enable RSVP for IP on an interface, perform the following task.

#### SUMMARY STEPS

- 1. enable
- 2. configure terminal
- 3. interface type number
- **4. ip rsvp bandwidth** [*interface-bandwidth* [**percent** *percent-bandwidth* | [*single-flow-bandwidth*] [**sub-pool** *bandwidth*]]]
- 5. end

#### **DETAILED STEPS**

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	Example:	• Enter your password if prompted.
	Device> enable	
Step 2	configure terminal	Enters global configuration mode.
	Example:	
	Device# configure terminal	

	Command or Action	Purpose
Step 3	interface type number	Configures the specified interface and enters interface configuration mode.
	Example:	
	<pre>Device(config)# interface fastethernet 0/1</pre>	
Step 4	<b>ip rsvp bandwidth</b> [interface-bandwidth [ <b>percent</b> percent-bandwidth   [single-flow-bandwidth] [ <b>sub-pool</b> bandwidth]]]	Enables RSVP for IP on an interface.
	Example:	
	Device(config-if)# ip rsvp bandwidth 23 54	
Step 5	end	Exits interface configuration mode and returns to privileged EXEC mode.
	Example:	
	Device(config-if)# end	

### **Configuring RSVP over UDP**

To enable RSVP over UDP, perform the following task:

#### **SUMMARY STEPS**

- 1. enable
- 2. configure terminal
- **3.** ip rsvp udp neighbor neighbor-IP-address router [vrf vrf-name]
- 4. end

#### **DETAILED STEPS**

I

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	<b>Example:</b> Device> enable	• Enter your password if prompted.

	Command or Action	Purpose
Step 2	configure terminal	Enters global configuration mode.
	<b>Example:</b> Device# configure terminal	
Step 3	<b>ip rsvp udp neighbor</b> <i>neighbor-IP-address</i> <b>router</b> [ <b>vrf</b> <i>vrf-name</i> ]	Configures the RSVP over UDP feature for the neighbor router.
	<pre>Example: Device(config)# ip rsvp udp neighbor 10.1.1.1 router vrf vrf-1</pre>	
Step 4	end	Returns to privileged EXEC mode.
	Example:	
	Device(config)# end	

# **Configuration examples for RSVP over UDP**

### **Example: Enabling RSVP**

The following example shows how to enable RSVP for IP on an interface:

```
enable
configure terminal
interface fastethernet 0/1
ip rsvp bandwidth 23 54
end
```

### **Example: Configuring RSVP over UDP**

The following example shows how to configure the RSVP over UDP feature on a neighbor router:

```
enable
  configure terminal
  ip rsvp udp neighbor 10.1.1.1 router vrf vrf-1
  end
```

# **Additional References**

#### **Related Documents**

Related Topic	Document Title
Cisco IOS commands	Master Command List, All Releases
RSVP commands	Quality of Service Solutions Command Reference
Overview on RSVP	Signaling Overview

#### **Standards and RFCs**

Standard/RFC	Title
RFC 2205	RSVP—Version 1 Function Specification
RFC 2209	RSVP—Version 1 Message Processing Rules

#### **Technical Assistance**

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	

## **Feature Information for RSVP over UDP**

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

٦

Feature Name	Releases	Feature Information
RSVP over UDP	15.2(4)M 15.4(1)S XE 3.11.0 S	The RSVP over UDP feature allows a router to enable a neighbor router to process and send RSVP control packets over UDP. The following commands were introduced or modified: <b>ip rsvp</b> <b>udp neighbor</b> .

#### Table 1: Feature Information for RSVP over UDP