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.

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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

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**interface** *type number* **Example:** `Device(config)# interface fastethernet 0/1`	Configures the specified interface and enters interface configuration mode.
Step 4	**ip rsvp bandwidth** [*interface-bandwidth* [**percent** *percent-bandwidth*	[*single-flow-bandwidth*] [**sub-pool** *bandwidth*]]] **Example:** `Device(config-if)# ip rsvp bandwidth 23 54`	Enables RSVP for IP on an interface.

	Command or Action	Purpose
Step 5	**end** **Example:** `Device(config-if)# end`	Exits interface configuration mode and returns to privileged EXEC mode.

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

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**ip rsvp udp neighbor** *neighbor-IP-address* **router** [**vrf** *vrf-name*] **Example:** `Device(config)# ip rsvp udp neighbor 10.1.1.1 router vrf vrf-1`	Configures the RSVP over UDP feature for the neighbor router.
Step 4	**end** **Example:** `Device(config)# end`	Returns to privileged EXEC mode.

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.	http://www.cisco.com/cisco/web/support/index.html

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.

Table 1: Feature Information for RSVP over UDP

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: **ip rsvp udp neighbor**.