

# RSVP Commands

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This chapter describes the function and displays the syntax for Resource Reservation Protocol (RSVP) commands. For more information about defaults and usage guidelines, see the corresponding chapter of the *Network Protocols Command Reference, Part 1*.

## ip rsvp bandwidth

To enable RSVP for IP on an interface, use the **ip rsvp bandwidth** interface configuration command. To disable RSVP, use the **no** form of the command.

```
ip rsvp bandwidth [interface-kbps] [single-flow-kbps]  
no ip rsvp bandwidth [interface-kbps] [single-flow-kbps]
```

*interface-kbps* (Optional) Amount of bandwidth (in kbps) on interface to be reserved. The range is 1 to 10,000,000.

*single-flow-kbps* (Optional) Amount of bandwidth (in kbps) allocated to a single flow. The range is 1 to 10,000,000.

## ip rsvp neighbors

To enable neighbors to request a reservation, use the **ip rsvp neighbors** interface configuration command. To disable this feature, use the **no** form of the command.

```
ip rsvp neighbors access-list-number  
no ip rsvp neighbors access-list-number
```

*access-list-number* Number of a standard or extended access list. It can be an integer from 1 to 199.

## ip rsvp reservation

To enable a router to simulate RSVP RESV message reception from the sender, use the **ip rsvp reservation** interface configuration command. To disable this feature, use the **no** form of the command.

```
ip rsvp reservation session-ip-address sender-ip-address [tcp | udp | ip-protocol]
session-dport sender-sport next-hop-ip address nexthop-interface {ff | se | wf} {rate | load}
[bandwidth] [burst-size]
```

```
no ip rsvp reservation session-ip-address sender-ip-address [tcp | udp | ip-protocol]
session-dport sender-sport next-hop-ip address nexthop-interface {ff | se | wf} {rate | load}
[bandwidth] [burst-size]
```

|  |  |
|--|--|
| <i>session-ip-address</i>                    | For unicast sessions, this is the address of the intended receiver; for multicast sessions, it is the IP multicast address of the session.   |
| <i>sender-ip-address</i>                     | For unicast sessions, this is the address of the sender; for multicast sessions, it is the IP multicast address of the session.  |
| <b>tcp</b>   <b>udp</b>   <i>ip-protocol</i> | (Optional) TCP, UDP, or IP protocol in the range 0 to 255.   |
| <i>session-dport</i><br><i>sender-sport</i>  | Session-dport is the destination port. Sender-sport is the source port. Port numbers are specified in all cases, as the use of 16-bit ports following the IP header is not limited to UDP or TCP. If destination is zero, source must be zero, and the implication is that ports are not checked. If destination is non-zero, source must be non-zero. |
| <i>next-hop-ip-address</i>                   | Hostname or address of the receiver or the router closest to the receiver.   |
| <i>next-hop-interface</i>                    | Next hop interface or subinterface type and number. Interface type can be <b>ethernet</b> , <b>loopback</b> , <b>null</b> , or <b>serial</b> .   |
| <b>ff</b>   <b>se</b>   <b>wf</b>            | Reservation style: <ul style="list-style-type: none"> <li>• Fixed Filter (<b>ff</b>) is single reservation.</li> <li>• Shared Explicit (<b>se</b>) is shared reservation, limited scope.</li> <li>• Wild Card (<b>wf</b>) is shared reservation, unlimited scope.</li> </ul>   |
| <b>rate</b>   <b>load</b>                    | QOS: guaranteed bit <b>rate</b> service or controlled <b>load</b> service.   |
| <i>bandwidth</i>                             | (Optional) Average bit rate (kbps) to reserve up to 75 percent of total on interface. Range is 1 to 10,000,000.  |
| <i>burst-size</i>                            | (Optional) Maximum burst size (Kilobytes of data in queue). Range is 1 to 65,535.  |

## ip rsvp sender

To enable a router to simulate RSVP PATH message reception from the sender, use the **ip rsvp sender** interface configuration command. To disable this feature, use the **no** form of the command.

**ip rsvp sender** *session-ip-address sender-ip-address* [**tcp** | **udp** | *ip-protocol*] *session-dport sender-sport previous-hop-ip-address previous-hop-interface* [*bandwidth*] [*burst-size*]

**no ip rsvp sender** *session-ip-address sender-ip-address* [**tcp** | **udp** | *ip-protocol*] *session-dport sender-sport previous-hop-ip-address previous-hop-interface* [*bandwidth*] [*burst-size*]

|  |  |
|--|--|
| <i>session-ip-address</i>                    | For unicast sessions, this is the address of the intended receiver; for multicast sessions, it is the IP multicast address of the session.   |
| <i>sender-ip-address</i>                     | For unicast sessions, this is the address of the sender; for multicast sessions, it is the IP multicast address of the session.  |
| <b>tcp</b>   <b>udp</b>   <i>ip-protocol</i> | TCP, UDP, or IP protocol in the range 0 to 255.  |
| <i>session-dport sender-sport</i>            | Destination/source ports. Port numbers are specified in all cases, as the use of 16-bit ports following the IP header is not limited to UDP or TCP. If destination is zero, source must be zero, and the implication is that ports are not checked. If destination is non-zero, source must be non-zero. |
| <i>previous-hop-ip-address</i>               | Address of the sender or the router closest to the sender.   |
| <i>previous-hop-interface</i>                | Address of the previous hop interface or subinterface. Interface type can be <b>ethernet</b> , <b>loopback</b> , <b>null</b> , or <b>serial</b> .  |
| <i>bandwidth</i>                             | Average bit rate (kbps) to reserve up to 75 percent of total on interface.   |
| <i>burst-size</i>                            | Maximum burst size (kilobytes of data in queue).   |

## ip rsvp udp-multicast

To instruct the router to generate UDP-encapsulated RSVP multicasts whenever it generates an IP multicast, use the **ip rsvp udp-multicast** interface configuration command. To disable this feature, use the **no** form of the command.

**ip rsvp udp-multicast** [*multicast-address*]

**no ip rsvp udp-multicast** [*multicast-address*]

|                          |  |
|--------------------------|--|
| <i>multicast-address</i> | (Optional) Host name or UDP multicast address of router. |
|--------------------------|--|

## show ip rsvp interface

To display RSVP-related interface information, use the **show ip rsvp interface** EXEC command.

**show ip rsvp interface** [*type number*]

*type number* (Optional) Interface type and number.

## show ip rsvp installed

To display RSVP-related installed filters and corresponding bandwidth information, use the **show ip rsvp installed** EXEC command.

**show ip rsvp installed** [*type number*]

*type number* (Optional) Interface type and number.

## show ip rsvp neighbor

To display current RSVP neighbors, use the **show ip rsvp neighbor** EXEC command.

**show ip rsvp neighbor** [*type number*]

*type number* (Optional) Interface type and number.

## show ip rsvp request

To display RSVP-related request information being requested upstream, use the **show ip rsvp request** EXEC command.

**show ip rsvp request** [*type number*]

*type number* (Optional) Interface type and number.

## show ip rsvp reservation

To display RSVP-related receiver information currently in the database, use the **show ip rsvp reservation** EXEC command.

**show ip rsvp reservation** [*type number*]

*type number* (Optional) Interface type and number.

## show ip rsvp sender

To display RSVP-related sender information currently in the database, use the **show ip rsvp sender** EXEC command.

**show ip rsvp sender** [*type number*]

*type number*

(Optional) Interface type and number.

