

Chapter 15

Multicast Forwarding Cache Limits

Limiting multicast forwarding cache entries is a way to allow the router to handle multicast traffic more efficiently by establishing boundaries on the size of the forwarding table cache used by multicast.

This section discusses the following topics that provide information about configuring multicast forwarding cache limits:

Multicast Forwarding Cache Limits Overview on page 123

Configure Multicast Forwarding Cache Limits on page 123

Multicast Forwarding Cache Limits Configuration Statements on page 125

For configuration examples, see “Examples: Configure Multicast Forwarding Cache Limits” on page 124.

Multicast Forwarding Cache Limits Overview

IP multicast protocols can create numerous multicast forwarding cache entries. If the forwarding cache fills up, then all applications and protocols might not function properly. Configure multicast forwarding cache limits to help prevent problems caused by a full multicast forwarding cache.

Configure Multicast Forwarding Cache Limits

To configure multicast forwarding cache limits, include the following routing option statements:

```
multicast {
  forwarding-cache {
    threshold suppress value <reuse value>;
  }
}
```

You can configure this statement at the following hierarchy levels:

[edit routing-options]

[edit logical-routers *logical-router-name* routing-options]

For an overview of logical routers and a detailed example of logical router configuration, see the logical routers chapter of the *JUNOS Feature Guide*.

By default, there are no limits on the number of multicast forwarding cache entries.

Specify a value for the threshold to suppress new multicast forwarding cache entries and an optional reuse value for the threshold at which the router will begin to create new multicast forwarding cache entries. The range for both is from 1 to 200,000. If configured, the reuse value should be less than the suppression threshold value. The suppression value is mandatory. If you do not specify the optional reuse value, then the number of multicast forwarding cache entries is limited to the suppression value. A new entry is created as soon as the number of multicast forwarding cache entries falls below the suppression value.

For information about supported standards for multicast scoping, see “IP Multicast Standards” on page 28.

Examples: Configure Multicast Forwarding Cache Limits

Configure multicast forwarding cache limits, establishing a suppression threshold of 10 and a reuse threshold of 7:

```
[edit]
routing-options {
  multicast {
    forwarding-cache {
      threshold suppress 10 reuse 7;
    }
  }
}
```

Only 10 multicast forwarding cache entries will be created. No new multicast forwarding cache entries will be created until the number of multicast forwarding cache entries falls to 7.

Configure multicast forwarding cache limits, establishing a suppression threshold of 20 and a no reuse threshold:

```
[edit]
routing-options {
  multicast {
    forwarding-cache {
      threshold suppress 20;
    }
  }
}
```

Only 20 multicast forwarding cache entries will be created. A new multicast forwarding cache entry will be created when the number of multicast forwarding cache entries falls to 19.

Multicast Forwarding Cache Limits Configuration Statements

The following sections explain each of the multicast forwarding cache limits configuration statements. The statements are organized alphabetically.

forwarding-cache

Syntax	forwarding-cache { threshold suppress <i>value</i> <reuse <i>value</i> >; }
Hierarchy Level	[edit logical-routers <i>logical-router-name</i> routing-options multicast] [edit routing-options multicast]
Description	Configure multicast forwarding cache limits.
Options	The statement is explained separately.
Usage Guidelines	See “Configure Multicast Forwarding Cache Limits” on page 123.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

threshold

Syntax	threshold suppress <i>value</i> <reuse <i>value</i> >;
Hierarchy Level	[edit logical-routers <i>logical-router-name</i> routing-options multicast forwarding-cache], [edit routing-options multicast forwarding-cache]
Description	Configure the suppression and reuse thresholds for multicast forwarding cache limits.
Options	suppress <i>value</i> —Value to begin suppressing new multicast forwarding cache entries. This value is mandatory. This number should be greater than the reuse value. Range: 1 through 200,000 reuse <i>value</i> —Value to begin creating new multicast forwarding cache entries. This value is optional. If configured, this number should be less than the suppress value. Range: 1 through 200,000
Usage Guidelines	See “Configure Multicast Forwarding Cache Limits” on page 123.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

