



Distributed MFIB for IPv6 Multicast

Last Updated: January 24, 2013

Distributed MFIB (dMFIB) is used to switch multicast IPv6 packets on distributed platforms. The basic MFIB routines that implement the core of the forwarding logic are common to all forwarding environments.

- [Finding Feature Information, page 1](#)
- [Information About Distributed MFIB for IPv6 Multicast, page 1](#)
- [How to Disable MFIB on a Distributed Platform, page 2](#)
- [Configuration Example for Distributed MFIB for IPv6 Multicast, page 3](#)
- [Additional References, page 3](#)
- [Feature Information for Distributed MFIB for IPv6 Multicast, page 4](#)

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.

Information About Distributed MFIB for IPv6 Multicast

- [Distributed MFIB, page 1](#)

Distributed MFIB

Distributed Multicast Forwarding Information Base (MFIB) is used to switch multicast IPv6 packets on distributed platforms. Distributed MFIB may also contain platform-specific information on replication across line cards. The basic MFIB routines that implement the core of the forwarding logic are common to all forwarding environments.



Americas Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

dMFIB implements the following functions:

- Distributes a copy of the MFIB to the line cards.
- Relays data-driven protocol events generated in the line cards to PIM.
- Provides an MFIB platform application program interface (API) to propagate MFIB changes to platform-specific code responsible for programming the hardware acceleration engine. This API also includes entry points to switch a packet in software (necessary if the packet is triggering a data-driven event) and to upload traffic statistics to the software.
- Provides hooks to allow clients residing on the RP to read traffic statistics on demand. Distributed MFIB does not periodically upload these statistics to the RP.

The combination of distributed MFIB and MRIB subsystems allows the device to have a "customized" copy of the MFIB database in each line card and to transport MFIB-related platform-specific information from the RP to the line cards.

How to Disable MFIB on a Distributed Platform



Note

SUMMARY STEPS

1.

DETAILED STEPS

Example:

Example:

- [Disabling MFIB on a Distributed Platform, page 2](#)

Disabling MFIB on a Distributed Platform

Multicast forwarding is automatically enabled when IPv6 multicast routing is enabled. However, you may want to disable multicast forwarding on a distributed platform.

SUMMARY STEPS

1. enable
2. configure terminal
3. ipv6 mfib-mode centralized-only

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|--|--|
| Step 1 | enable Example: Device> enable | Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted. |
| Step 2 | configure terminal Example: Device# configure terminal | Enters global configuration mode. |
| Step 3 | ipv6 mfib-mode centralized-only Example: Device(config)# ipv6 mfib-mode centralized-only | Disables distributed forwarding on a distributed platform. |

Configuration Example for Distributed MFIB for IPv6 Multicast

This example shows how to disable multicast forwarding on a distributed platform:

```
Device(config)# ipv6 mfib-mode centralized-only
```

Additional References

Related Documents

| Related Topic | Document Title |
|----------------------|---|
| Cisco IOS commands | <i>Cisco IOS Master Commands List, All Releases</i> |

| Related Topic | Document Title |
|----------------------------------|--|
| IP multicast commands | Cisco IOS IP Multicast Command Reference |
| IPv6 commands | Cisco IOS IPv6 Command Reference |
| IPv6 features | Cisco IOS IPv6 Feature Mapping |
| IPv6 addressing and connectivity | IPv6 Configuration Guide |

Standards and RFCs

| Standard/RFC | Title |
|---------------|---------------------------|
| RFCs for IPv6 | IPv6 RFCs |

MIBs

| MIB | MIBs Link |
|---|--|
| No new or modified MIBs are supported, and support for existing MIBs has not been modified. | To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs |

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 Distributed MFIB for IPv6 Multicast

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 Distributed MFIB for IPv6 Multicast**

| Feature Name | Releases | Feature Information |
|-------------------------------------|--|---|
| Distributed MFIB for IPv6 Multicast | 12.0(26)S 12.2(25)S 12.2(28)SB 12.3(4)T 12.4 Cisco IOS XE Release 2.1 | Distributed MFIB is used to switch multicast IPv6 packets on distributed platforms. The following command was introduced: ipv6 mfib-mode centralized-only . |

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2013 Cisco Systems, Inc. All rights reserved.