

# **Distributed MFIB for IPv6 Multicast**

#### **Last Updated: November 19, 2012**

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 <a href="https://www.cisco.com/go/cfn">www.cisco.com/go/cfn</a>. 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.



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**

SUMMARY STEPS		
SUIVIIVIARY STEPS		
1.		
DETAILED STEPS		

• 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	Enables privileged EXEC mode.
		Enter your password if prompted.
	Example:	
	Device> enable	
Step 2	configure terminal	Enters global configuration mode.
	Example:	
	Device# configure terminal	
Step 3	ipv6 mfib-mode centralized-only	Disables distributed forwarding on a distributed platform.
	Example:	
	Device(config)# ipv6 mfib-mode centralized-only	

# **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 Master Commands	
Cisco IOS commands		
	List, All Releases	

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 <a href="https://www.cisco.com/go/cfn">www.cisco.com/go/cfn</a>. 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	12.0(26)S	Distributed MFIB is used to
Multicast	12.2(23)3	switch multicast IPv6 packets on distributed platforms.
	12.2(28)SB	The following command was
	12.3(4)T	introduced: <b>ipv6 mfib-mode</b>
12.4 Cisco IO	12.4	centralized-only.
	Cisco IOS XE Release 2.1	

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: <a href="www.cisco.com/go/trademarks">www.cisco.com/go/trademarks</a>. 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.

© 2012 Cisco Systems, Inc. All rights reserved.