Memory Pool--SNMP Notification Support

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This feature adds command-line interface (CLI) commands to enable SNMP notifications for the Cisco Enhanced Memory Pool MIB (CISCO-ENHANCED-MEMPOOL-MIB).

Finding Support Information for Platforms and Cisco IOS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS software image support. Access Cisco Feature Navigator at http://www.cisco.com/go/fn . You must have an account on Cisco.com. If you do not have an account or have forgotten your username or password, click **Cancel** at the login dialog box and follow the instructions that appear.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see 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 document.

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.

Prerequisites for Memory Pool--SNMP Notification Support

Before you can compile CISCO-ENHANCED-MEMPOOL-MIB, you need to compile the following MIBs in the order listed:

1 SNMPv2-SM (SNMP configuration MIB)
2 SNMPv2-TC (SNMP configuration MIB)
3 SNMPv2-CONF (SNMP configuration MIB)
4 SNMP-FRAMEWORK-MIB (SNMP configuration MIB)
5 CISCO-SMI (SNMP configuration MIB)
6 ENTITY-MIB (core MIB)
7 CISCO-ENHANCED-MEMPOOL-MIB (infrastructure MIB)

All MIBs used on Cisco devices are available through Cisco.com at http://www.cisco.com/go/mibs .

Restrictions for Memory Pool--SNMP Notification Support

Access to the MIB is restricted to a read-only level.

Information About Memory Pool--SNMP Notification Support

The CISCO-ENHANCED-MEMPOOL-MIB module describes SNMP objects that enable users to remotely monitor the memory pool statistics of all physical entities, such as line cards and route processors, in a managed device. This is particularly useful for high-end routers that may have a large number of line cards. Beginning in Cisco IOS Release 12.3(4)T, the MIB has been enhanced to provide buffer pool and buffer cache statistics.

In addition to the statistics provided by the MIB, SNMP notifications (traps or informs) can be configured to be sent when the maximum number of memory buffers changes (in other words, when a new buffer peak is reached).

How to Enable Memory Pool--SNMP Notification Support

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **snmp-server enable traps memory** [**bufferpeak**]
4. **snmp-server host** {*hostname* | *ip-address*} [**traps** | **informs**] [**version** {**1** | **2c** | **3** [**auth** | **noauth** | **priv**]}] *community-string* [**udp-port** *port*] [*notification-type*] [**vrf** *vrf-name*]

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**snmp-server enable traps memory** [**bufferpeak**] **Example:** `Router(config)# snmp-server enable traps memory bufferpeak`	Enables only buffer peak notifications (traps or informs) in the CISCO-ENHANCED-MEMPOOL-MIB.
Step 4	**snmp-server host** {*hostname* | *ip-address*} [**traps** | **informs**] [**version** {**1** | **2c** | **3** [**auth** | **noauth** | **priv**]}] *community-string* [**udp-port** *port*] [*notification-type*] [**vrf** *vrf-name*] **Example:** `Router(config)# snmp-server host NMS-host1.example.com community1 memory`	Enables buffer peak notifications to be sent to the specified host.

Configuration Examples for Memory Pool--SNMP Notification Support

Enabling Memory Pool--SNMP Notification Support Example

In the following example, all available memory-related SNMP notifications are enabled and configured to be sent as informs to the host myhost.cisco.com using the community string public:

`Router(config)#` **`snmp-server enable traps memory bufferpeak`**

`Router(config)#` **`snmp-server host myhost.cisco.com informs version 3 public memory`**

Note that as of this release, only the buffer peak memory notification type is available. Additional memory notification type keywords may be added in future releases.

Additional References

The following sections provide references related to the Memory Pool--SNMP Notification Support feature.

Related Documents

Related Topic	Document Title
Memory buffers	Buffer Tuning (Cisco Tech Note 15091)
SNMP Configuration	The chapter " Configuring SNMP Support " in the *Cisco IOS Network Management Configuration Guide* .

Standards

Standards	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	--

MIBs

MIBs	MIBs Link
• CISCO-ENHANCED-MEMPOOL-MIB.my (Rev 2.3)	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

RFCs

RFCs	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	--

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.	http://www.cisco.com/techsupport
To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.	
Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	

Feature Information for Memory Pool--SNMP Notification Support

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 Memory Pool--SNMP Notification Support*

Feature Name	Releases	Feature Information
Memory Pool--SNMP Notification Support	12.3(4)T 12.2(22)S 12.2(33)SRA 12.2(33)SXH	This feature adds command-line interface (CLI) commands to enable SNMP notifications for the Cisco Enhanced Memory Pool MIB (CISCO-ENHANCED-MEMPOOL-MIB).

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