



Memory Pool—SNMP Notification Support

Last Updated: November 14, 2012

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

- [Finding Feature Information, page 1](#)
- [Prerequisites for Memory Pool—SNMP Notification Support, page 1](#)
- [Restrictions for Memory Pool—SNMP Notification Support, page 2](#)
- [Information About Memory Pool—SNMP Notification Support, page 2](#)
- [How to Enable Memory Pool—SNMP Notification Support, page 2](#)
- [Configuration Examples for Memory Pool—SNMP Notification Support, page 3](#)
- [Additional References, page 3](#)
- [Feature Information for Memory Pool—SNMP Notification Support, page 5](#)

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.

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)



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

- 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 devices that may have a large number of line cards. 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

Perform this task to enable memory pool for 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: Device> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.

Command or Action	Purpose
<p>Step 2 <code>configure terminal</code></p> <p>Example:</p> <pre>Device# configure terminal</pre>	Enters global configuration mode.
<p>Step 3 <code>snmp-server enable traps memory [bufferpeak]</code></p> <p>Example:</p> <pre>Device(config)# snmp-server enable traps memory bufferpeak</pre>	Enables only buffer peak notifications (traps or informs) in the CISCO-ENHANCED-MEMPOOL-MIB.
<p>Step 4 <code>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]</code></p> <p>Example:</p> <pre>Device(config)# snmp-server host NMS-host1.example.com community1 memory</pre>	Enables buffer peak notifications to be sent to the specified host.

Configuration Examples for Memory Pool—SNMP Notification Support

- [Example: Enabling Memory Pool—SNMP Notification Support Example, page 3](#)

Example: 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:

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

```
Device(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 <i>Cisco Network Management Configuration Guide</i> .

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
<ul style="list-style-type: none"> CISCO-ENHANCED-MEMPOOL-MIB.my (Rev 2.3) 	<p>To locate and download MIBs for selected platforms, Cisco software releases, and feature sets, use Cisco MIB Locator found at the following URL:</p> <p>http://www.cisco.com/go/mibs</p>

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
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting, and resolving technical issues with Cisco products and technologies.</p> <p>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.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<p>http://www.cisco.com/techsupport</p>

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 commands to enable SNMP notifications for the Cisco Enhanced Memory Pool MIB (CISCO-ENHANCED-MEMPOOL-MIB).

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.

© 2011 Cisco Systems, Inc. All rights reserved.

© 2012 Cisco Systems, Inc. All rights reserved.