



SNMP Trap Messages for Cisco TelePresence MIB Files

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Get MIBs and SNMP Trap Messages for the Cisco TelePresence System

To access the MIB files that are supported by the Cisco TelePresence System (CTS), go to the [Cisco Network Management Software](#) download page and select [TelePresence System](#) from the Cisco TelePresence Products drop-down menu:

<ftp://ftp.cisco.com/pub/mibs/supportlists/cts/cts-supportlist.html>

About Cisco TelePresence MIB Files

The MIB module defines the managed objects for the Cisco TelePresence System. Telepresence refers to a set of technologies which allow a person to feel as if they were present, to give the appearance that they were present, or to have an effect, at a location other than their true location. A Cisco TelePresence call is an audio-video call; some Cisco TelePresence Systems also support audio addin calls.

Different security levels are supported in some Cisco TelePresence Systems; security level is managed from the call management system, [Cisco Unified Communications Manager](#).

Turning on a specific MIB enables an SNMP trap.

About SNMP Traps

Simple Network Management Protocol (SNMP) is the network protocol developed to manage devices on an IP network. SNMP is everywhere: server, workstation, router, firewall, switch, hub, printer, IP phone, and appliances. SNMP is used by network administrators to manage network performance, to find and solve network problems, and to plan network growth.

Cisco's implementation of Community-Based SNMP version 2 (SNMPv2c) and SNMP version 3 (SNMPv3) are defined in the following Request For Comments (RFCs):

- SNMPv2c—RFC 1901 through RFC 1908
- SNMPv3—RFC 3411 through RFC 3418

SNMP MIB files can be found in the following directories at the [link](#) above:

- SNMP version 1 MIB files are in the v1 directory.
- SNMP version 2 MIB files are in the v2 directory.



Note

For every MIB.my in the v2 directory, there is an SNMP version 1 MIB-V1SMI.my in the v1 directory.

Supported CTS MIB Files

Table 9-1 CTS Supported MIB Files

MIB File	Cisco MIB Description
CISCO-TELEPRESENCE-MIB.my	Manages a Cisco TelePresence System.
CISCO-TELEPRESENCE-CALL-MIB.my	Manages a Cisco TelePresence System call.
CISCO-ENVMON-MIB.my	Cisco Environmental Monitor MIB file.
CISCO-SYSLOG-MIB.my	Cisco syslog message MIB file.
SNMPv2-MIB.my	Management Information Base (MIB) for the Simple Network Management Protocol (SNMP).
HOST-RESOURCES-MIB.my	Manages the host system.
IF-MIB.my	Describes generic objects for network interface sub-layers.
SNMP-FRAMEWORK-MIB.my	Defines SNMP management architecture.
SNMP-MPD-MIB.my	Defines message processing and dispatching.
SNMP-NOTIFICATION-MIB.my	Defines MIB objects which provide mechanisms to remotely configure the parameters used by an SNMP entity for the generation of notifications.
SNMP-TARGET-MIB.my	Defines MIB objects which provide mechanisms to remotely configure the parameters used by an SNMP entity for the generation of SNMP messages.

Table 9-1 CTS Supported MIB Files (continued)

MIB File	Cisco MIB Description
SNMP-USM-MIB.my	Management information definitions for the SNMP user-based security model.
SNMP-VACM-MIB.my	Management information definitions for the view-based access control model for SNMP.
SNMPv2-MIB.my	MIB module for SNMP entities.
SYSAPPL-MIB.my	Defines management objects that model applications as collections of executables and files installed and executing on a host system. The MIB presents a system-level view of applications.
RFC1213-MIB.my	MIB module RFC1213-MIB.
TCP-MIB.my	Algorithm used to determine the timeout value used for retransmitting unacknowledged octets.
UDP-MIB.my	Manages UDP implementations.

Retrieving the Status of System Components By Polling The Secondary Codecs

By default, SNMP polling only retrieves the status of system components, also known as peripherals, that are directly connected to the TS1 codec. For example, you can only retrieve the results of the center camera and the center display because those components are directly connected to the TS1 codec.

In addition, the status of components that are connected to the audio/video extension unit, such as the presentation display and all auxiliary displays, are invalid if you poll them from the TS1 codec.

To retrieve the status of other system components, you can poll the TS2, TS3, and TS4 codes by using the TS1 codec as a proxy server.

Use the following strings in SNMP commands to poll the status of these codecs:

- `cts2` polls the TS2 codec
- `cts3` polls the TS3 codec
- `cts4` polls the TS4 codec



Note

You define SNMP parameters for your system in Cisco Unified Communications Manager (Unified CM). For more information about the parameters, refer to the “[SNMP Configuration Parameters Area](#)” and “[SNMP Trap Parameters Area](#)” sections of the “[Configuring Cisco Unified Communications Manager for the Cisco TelePresence System](#)” chapter in the *Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System*.



Note

Do not use a user name of **admin** as the SNMP trap username in Unified CM.

To find the status of system components that are not connected to the TS1 codec, complete the following steps.

Step 1 Determine the codec to which the system component is connected.

To find the connection, refer to the [TX9000 and TX9200 Wiring Diagram](#) in the “[Connecting and Routing the Cables](#)” chapter of the *Cisco TelePresence System TX9000 and TX9200 Assembly, First-Time Setup, and Field-Replaceable Unit Guide*. For an example, see the “[SNMP Command Example: Retrieving the Status of the Right Display](#)” section on page 9-4.



Tip

For the presentation display and all auxiliary displays (if installed), use the TS4 codec.

Step 2 Enter one of the following commands to poll the TS2, TS3, or TS4 codecs:

- For SNMP v3 format, use the following command:

```
snmpwalk -n ctsx -v3 -m ALL -u admin -A snmp-auth-password system-ip-address object-id
```

where:

ctsx is the econdary codec name (cts2, cts3, or cts4 for TS2, TS3, and TS4 respectively).

snmp-auth-password is the SNMP administration user authentication password used to gain access to the SNMP v3 server. This password is defined in the “SNMP (v3) Auth. Password” field in Unified CM.

system-ip-address is the IP address of the Cisco TelePresence system.

object-id is the object ID (OID) in the SNMP MIB.

- For SNMP v2c format, use the following command:

```
snmpwalk -m ALL -v2c -c community-string_ctsx system-ip-address object-id
```

where:

community-string is the community string used for SNMP as defined in the “SNMP (v2c) Community Read Only” and “SNMP (v2c) Community Read Write” fields in Unified CM.

ctsx is the econdary codec name (cts2, cts3, or cts4 for TS2, TS3, and TS4 respectively)

system-ip-address is the IP address of the Cisco TelePresence system.

object-id is the OID in the SNMP MIB.

SNMP Command Example: Retrieving the Status of the Right Display

To find the status of the right display, look at the [TX9000 and TX9200 Wiring Diagram](#) in the “[Connecting and Routing the Cables](#)” chapter of the *Cisco TelePresence System TX9000 and TX9200 Assembly, First-Time Setup, and Field-Replaceable Unit Guide*.

Following the cable labeled DH3, you determine that the cable goes from the right display to the TS3 codec. Therefore, you use SNMP to query the TS3 codec to find the status of the right display.

SNMP v3 Command Example

To poll the status of the peripherals connected to the TS3 codec in a Cisco TelePresence system with an IP address of 10.1.1.1, an SNMP password of snmppassword, and an OID of ctpPeripheralStatusTable, enter the following command:

```
snmpwalk -n cts3 -v3 -m ALL -u admin -A snmppassword 10.1.1.1 ctpPeripheralStatusTable
```

SNMP v2c Command Example

To poll the status of the peripherals connected to the TS3 codec in a Cisco TelePresence system with a community string of readonly, an IP address of 10.1.1.1, and an OID of ctpPeripheralStatusTable, enter the following command:

```
snmpwalk -m ALL -v2c -c readonly_cts3 10.1.1.1 ctpPeripheralStatusTable
```

Supported SNMP Trap Files

Table 9-2 lists Cisco TelePresence supported SNMP traps and their associated MIB files. See also the [Cisco SNMP Object Navigator](#).

Table 9-2 CTS Supported SNMP Trap Files

Trap File	MIB File
ctpPeriStatusChangeNotification	CISCO-TELEPRESENCE-MIB.my
ctpPeripheralErrorNotification	
ctpSysUserAuthFailNotification	
ctpcMgmtSysConnEventNotification	CISCO-TELEPRESENCE-CALL-MIB.my
ctpcMgmtSysConnFailNotification	
ctpcStatNotificaion	
ciscoEnvMonTempStatusChangeNotif	CISCO-ENVMON-MIB.my
clogMessageGenerated	CISCO-SYSLOG-MIB.my
coldStart	SNMPv2-MIB.my
warmStart	
authenticationFailure	

SNMP Objects Value Persistence Commands

The following commands are supported in admin mode.

Command	Description
help utils snmp save snmp save help	Saves a set of current SNMP object values. The saved values replace the object default values when SNMPD is restarted.
help utils snmp reset snmp reset help	Resets SNMP default values. Current SNMP objects value will not be affected. The default values are used the next time SNMPD is restarted.



Tip

Remember to save your settings for reboot so that you do not have to load the entire code again.

SNMP Supported Characters

The Cisco Unified CM Administration interface accepts these characters for SNMP usernames, passwords, and community strings:

- All alphanumeric characters, including upper- and lower-case alphabetical characters.
- The special characters listed in [Table 9-3](#).

Table 9-3 Supported Special SNMP Characters

Character	Description
@	“At” symbol
#	Number sign or hash mark
\$	Currency symbol. Note No longer supported in Cisco Unified CM password strings. Cisco recommends that you do not use this symbol in any of your Cisco TelePresence passwords.
%	Percent symbol
^	Carat symbol
*	Asterisk
()	Left and right parenthesis
_	M-dash
-	hyphen
+	Plus sign
/	Forward slash
?	Question mark
{ }	Wavy brackets
[]	Straight brackets
,	Comma
.	Period