

How To Get Information About Users Connected To The TTY By Using SNMP

Document ID: 45281

Contents

Introduction

Prerequisites

- Requirements
- Components Used
- Conventions

Background

Details of the MIB Variables (Includes OIDs)

Obtain TTY Information with SNMP

Step-by-Step Instructions

Clear a VTY Session with SNMP

Step-by-Step Instructions

Related Information

Introduction

This document describes how you can retrieve information about users connected to the TTY lines on a Cisco device with the help of Simple Network Management Protocol (SNMP). This document also explains all possible object identifiers (OIDs) and how to clear a specific TTY line with SNMP.

Prerequisites

Requirements

Before you use the information in this document, make sure that you meet these requirements:


- Understand how to view TTY information on Cisco devices .
- General use of SNMP **walk**, **get**, and **set** commands.
- Understand how to configure SNMP on a Cisco device.

Components Used

This document applies to Cisco routers and switches running a regular Catalyst operating system (OS) or Catalyst IOS that supports the OLD-CISCO-TS-MIB.

Note: The OLD-CISCO-TS-MIB is not loaded by default in NET-SNMP. If the Management Information Base (MIB) is not loaded on your system, you must use the OID instead of the object name.

The information in this document is based on the software and hardware versions listed here:

- Router c3640 running 12.2(13a)
- NET-SNMP version 5.0.6 available at <http://www.net-snmp.org/> 

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Background

Details of the MIB Variables (Includes OIDs)

1.3.6.1.4.1.9.2.9.1 (OLD-CISCO-TS-MIB)

tsLines OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION "Number of terminal lines on this device. Includes virtual

::= { lts 1 }

1.3.6.1.4.1.9.2.9.2.1.1 (OLD-CISCO-TS-MIB)

tsLineActive OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION "Boolean whether this line is active or not."

::= { ltsLineEntry 1 }

1.3.6.1.4.1.9.2.9.2.1.2 (OLD-CISCO-TS-MIB)

tsLineType OBJECT-TYPE

SYNTAX INTEGER {

unknown(1),

console(2),

terminal(3),

line-printer(4),

virtual-terminal(5),

auxiliary(6)

}

ACCESS read-only

STATUS mandatory

DESCRIPTION "Type of line."

::= { ltsLineEntry 2 }

1.3.6.1.4.1.9.2.9.2.1.21 (OLD-CISCO-TS-MIB)

tsLineTimeActive OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION "The time in seconds since line was activated."

::= { ltsLineEntry 21 }

1.3.6.1.4.1.9.2.9.2.1.18 (OLD-CISCO-TS-MIB)

tsLineUser OBJECT-TYPE

SYNTAX DisplayString

ACCESS read-only

STATUS mandatory

DESCRIPTION "TACACS user name,if TACACS is enabled, of user on this line"

```
::= { ltsLineEntry 18 }
```

1.3.6.1.4.1.9.2.9.4 (OLD-CISCO-TS-MIB)

tsMsgTtyLine OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION "tty line to send the message to. -1 sends the messages to

```
::= { lts 4 }
```

1.3.6.1.4.1.9.2.9.10 (OLD-CISCO-TS-MIB)

tsClrTtyLine OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION "tty line to clear. **Read** returns the last line cleared.

```
::= { lts 10 }
```

Obtain TTY Information with SNMP

Step-by-Step Instructions

The values in the example are as follows:

- Device hostname = ponch
- Read community = public
- Write community = private

1. Replace the community strings and the hostname in the these commands.

- ◆ To find the available number of TTY lines (that includes the virtual ones), query the object **tsLines**:

```
snmpwalk -c public ponch tsLines
cisco.local.lts.tsLines.0 : INTEGER: 135
```

- ◆ To list active TTY lines query the **tsLineActive** object. The active TTY lines return 1:

```
snmpwalk -c public ponch tsLineActive
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineActive.0 : INTEGER: 1
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineActive.129 : INTEGER: 0
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineActive.130 : INTEGER: 1
&
```

2. Verify this with the **show users** command on the command-line interface (CLI) of the router:

```
ponch#sh users
  Line      User      Host(s)      Idle      Location
  0 con 0           idle         15:32:49
 *130 vty 0           idle         00:00:00 10.61.64.9

  Interface      User      Mode      Idle      Peer Address
```

- ◆ To obtain the type of line, query the **tsLineType** object. This shows how the user is connected:

```
◇ unknown(1)
```

- ◇ console(2)
- ◇ terminal(3)
- ◇ line-printer(4)
- ◇ auxiliary(6)

```
snmpwalk -c public ponch tsLineType
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineType.0 : INTEGER: console
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineType.129 : INTEGER: auxiliary
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineType.130 : INTEGER: virtual-t
&
```

- ◆ To determine whether the time line is been active,query the **tsLineTimeActive** object. This is the time in seconds since the line was activated:

```
snmpwalk -c public ponch tsLineTimeActive
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineTimeActive.0 : INTEGER: 17235
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineTimeActive.129 : INTEGER: 0
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineTimeActive.130 : INTEGER: 906
&
```

- ◆ To see who is connected to a TTY, you must be connected to the device through TACACS. Query the **tsLineUser** object to find the user name:

Note: If you are NOT connected through TACACS, then **tsLineUser** is empty!

```
snmpwalk -c public ponch tsLineUser
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineUser.0 : DISPLAY STRING- (asc
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineUser.129 : DISPLAY STRING- (a
cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineUser.131 : DISPLAY STRING- (a
&
```

3. Compare this sample output to your CLI command **show users** output:

```
ponch#sh users
  Line      User      Host(s)      Idle      Location
  0 con 0           idle         15:32:49
*131 vty 0      cisco       idle         00:00:00 10.61.64.11

Interface      User      Mode      Idle      Peer Address
```

Clear a VTY Session with SNMP

Step-by-Step Instructions

You can clear a telnet (VTY) session with SNMP. The **SNMP** command is the equivalent of the **clear line vty <number>** command. The object used to clear a line is **tsClrTtyLine**.

1. Use SNMP to clear VTY line 132 with these commands:

```
snmpset -c private ponch tsClrTtyLine.0 integer 132
cisco.local.lts.tcClrTtyLine.0 : INTEGER: 132
```

or

```
snmpset -c private ponch .1.3.6.1.4.1.9.2.9.10.0 integer 132
enterprises.9.2.9.10.0 = 132
```

2. To check this on the router before the line 132 is cleared, issue this command on the CLI:

```
ponch#show users
  Line      User      Host(s)      Idle      Location
  0 con 0           idle         05:23:17
```

```

130 vty 0          idle          1d03h 144.254.7.118
131 vty 1          idle          1d01h 144.254.7.118
132 vty 2          idle          00:04:36 144.254.8.54
*133 vty 3         idle          00:00:00 144.254.7.53

```

3. Check the router after you issue this command, to make sure line 132 is cleared:

```

ponch#show users
  Line      User      Host(s)      Idle      Location
  0 con 0           idle          05:26:42
  130 vty 0          idle          1d03h 144.254.7.118
  131 vty 1          idle          1d01h 144.254.7.118
  *133 vty 3         idle          00:00:00 144.254.7.53

```

4. Line 132 is now cleared.

Note: Issue this command carefully because it can disconnect a user from the device without warning!

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Updated: Oct 26, 2005

Document ID: 45281
