MICA and NextPort Modem Tech-Support Command Additions

Feature History

Release	Modification
12.1(13)	The commands **show tech-support modem** (for the Cisco AS5300 and AS5800 access servers) and **show tech-support spe** (for the Cisco AS5350, AS5400, AS5800, and AS5850 access servers) were introduced.
12.2(11)T	The commands were migrated to Cisco IOS Release 12.2(11)T.

This document describes the Asynchronous Line Monitoring feature and includes the following sections:

Feature Overview

When information was required to troubleshoot a problem with modems in the field before these commands were introduced, customers were asked to send the output of a number of Cisco IOS EXEC commands. Collecting this data is cumbersome for both customers and the engineers requesting the information. The **show tech-support modem** and **show tech-support spe** commands allow customers to collect an extensive report detailing modem functionality by entering a single command.

Benefits

The **show tech-support modem** and **show tech-support spe** commands are useful to the Cisco customer and Cisco customer support personnel alike. For example, when a quality assurance technician gathers troubleshooting information, rather than typing in a series of commands, the technician can simply add the output of the **show tech-support modem** and **show tech-support spe** command to his report. Development engineers can then have a consistent output for reference when troubleshooting problems.

Restrictions

The **show tech-support modem** and **show tech-support spe** commands are available on Cisco AS5300, AS5350, AS5400, AS5800, and AS5850 platforms that support the modem ISDN channel aggregation (MICA technologies) and NextPort service processing element (SPE) modems.

Related Documents

For more information about managing the Cisco MICA and SPE modems, refer to the following documents:

- *Cisco IOS Dial Technologies Command Reference*, Release 12.2
- *Cisco IOS Dial Technologies Configuration Guide*, Release 12.2. Refer to the chapter "Configuring and Managing Integrated Modems" in the part "Modem and Dial Shelf Configuration and Management."

Supported Platforms

- Cisco AS5300
- Cisco AS5350
- Cisco AS5400
- Cisco AS5800
- Cisco AS5850

Determining Platform Support Through Cisco Feature Navigator

Cisco IOS software is packaged in feature sets that support specific platforms. To get updated information regarding platform support for this feature, access Cisco Feature Navigator. Cisco Feature Navigator dynamically updates the list of supported platforms as new platform support is added for the feature.

Cisco Feature Navigator is a web-based tool that enables you to quickly determine which Cisco IOS software images support a specific set of features and which features are supported in a specific Cisco IOS image. You can search by feature or release. Under the release section, you can compare releases side by side to display both the features unique to each software release and the features in common.

To access Cisco Feature Navigator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank e-mail to cco-locksmith@cisco.com. An automatic check will verify that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password will be e-mailed to you. Qualified users can establish an account on Cisco.com by following the directions at http://www.cisco.com/register.

Cisco Feature Navigator is updated regularly when major Cisco IOS software releases and technology releases occur. For the most current information, go to the Cisco Feature Navigator home page at the following URL:

http://www.cisco.com/go/fn

Supported Standards, MIBs, and RFCs

Standards

None

MIBs

None

To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB website on Cisco.com at the following URL:

http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml

RFCs

None

Configuration Tasks

No configuration is required to create a modem functionality report. The tasks to start the modem reports are described in the following sections:

- Using the show tech-support Modem EXEC Commands
- Creating a Modem Report

Using the show tech-support Modem EXEC Commands

To start the modem and SPE reports, use the following EXEC commands:

Command	Purpose
Router# **show tech-support modem**	Runs a basic list of modem reports for the Cisco AS5300 and AS5800.
Router# **show tech-support modem detail**	Runs a detailed list of modem reports for the Cisco AS5300 and AS5800.
Router# **show tech-support spe**	Runs a basic list of modem reports for the Cisco AS5350, AS5400, AS5800, and AS5850.
Router# **show tech-support spe detail**	Runs a detailed list of modem reports for the Cisco AS5350, AS5400, AS5800, and AS5850.

Creating a Modem Report

To create a modem functionality report for MICA and SPE modems, use the following EXEC commands:

- To run a basic modem functionality report, enter the **show tech-support modem** (MICA modems on a Cisco AS5300 or AS5800) or **show tech-support spe** commands (SPE modems on Cisco AS5350, AS5400, AS5800, and AS5850) at the privileged EXEC prompt. Table 1 lists the commands that are run by this command, in the order run.

- To run the more detailed modem functionality report, enter the **show tech-support modem detail** (MICA modems on a Cisco AS5300 or AS5800) or **show tech-support spe detail** command (SPE modems on Cisco AS5350, AS5400, AS5800, and AS5850) at the privileged EXEC prompt. Table 1 lists the commands that are run by this command, in the order run.

Table 1   Commands Run by show tech-support modem and show tech-support spe Commands

Commands run by the show tech-support modem command:	Commands run by the show tech-support spe command:
show version	show version
show running-config	show running-config
show modem version	show spe version
show modem	show spe
show modem summary	show spe modem summary
show spe version	show spe modem csr summary
show controllers t1 call-counters	show spe modem disconnect-reason summary
show controllers e1 call-counters	show spe recovery
show modem connect-speeds	show csm call-rate
show modem mapping	show nextport mm
show line	show controllers e1 call-counters
show caller	show controllers t1 call-counters
show users all	show line
Additional commands run by the show tech-support modem detail command:	show caller
show modem configuration	show users all
show modem operational-status	**Additional commands run by the show tech-support spe detail command:**
show modem mica all	show csm modem
show modem csm	show spe log
show modem log	show port modem log

Configuration Examples

The reports displayed by the **show tech-support modem** and **show tech-support spe** commands are the successive output of many commands. The reports take some time to run and, when captured in a buffer, can be over 100 pages in length. A truncated example is provided in this section to show the extent of the information provided by these reports; however, providing a sample report for each of these commands would take too many pages to provide.

The following example shows partial output of the **show tech-support modem** command on a Cisco AS5300:

```
Router# show tech-support modem

------------------ show version ------------------

Cisco Internetwork Operating System Software
.
.
.
ROM: System Bootstrap, Version xx.xx, RELEASE SOFTWARE (xxx)
BOOTLDR: 5300 Software (C5300-BOOT-M), Version xx.xx, RELEASE SOFTWARE (xxx)

Router uptime is 36 minutes
System returned to ROM by reload at 09:40:14 UTC Thu May 15 1997
System image file is "tftp://..."

cisco AS5300 (R4K) processor (revision A.14) with 65536K/16384K bytes of memory.
Processor board ID 05433558
R4700 CPU at 150Mhz, Implementation 33, Rev 1.0, 512KB L2 Cache
Channelized E1, Version 1.0.
.
.
.
128 Serial network interface(s)
120 terminal line(s)
4 Channelized E1/PRI port(s)
128K bytes of non-volatile configuration memory.
16384K bytes of processor board System flash (Read/Write)
4096K bytes of processor board Boot flash (Read/Write)

Configuration register is 0x0


------------------ show running-config ------------------

Building configuration...

Current configuration : 37974 bytes
!
version 12.2
.
.
.
hostname ...
!
username ...
.
.
.
spe 1/0 2/9
 firmware location system:/ucode/mica_port_firmware
.
```

■ **Configuration Examples**

```
.
.
end

----------------- show modem version ------------------

  Codes:
  d - DSP software download is required for achieving K56flex connections

          Modem module     Firmware    Boot         DSP
  Mdm     Number           Rev         Rev          Rev
  1/0              0       2.7.2.0
  1/1              0       2.7.2.0
  1/2              0       2.7.2.0
  1/3              0       2.7.2.0
  1/4              0       2.7.2.0
  1/5              0       2.7.2.0
  1/6              1       2.7.2.0
  1/7              1       2.7.2.0
  1/8              1       2.7.2.0
  1/9              1       2.7.2.0
  1/10             1       2.7.2.0
  1/11             1       2.7.2.0
  1/12             2       2.7.2.0
  1/13             2       2.7.2.0
  1/14             2       2.7.2.0
  1/15             2       2.7.2.0
  1/16             2       2.7.2.0
  1/17             2       2.7.2.0
  1/18             3       2.7.2.0
  1/19             3       2.7.2.0
  1/20             3       2.7.2.0
.
.
.

Modem board HW version info:

Slot 1:
Carrier card:
     number_of_ports= 60, max_modules= 10
Manufacture Cookie Info:
 EEPROM Type 0x0001, EEPROM Version 0x01, Board ID 0x47,
 Board Hardware Version 1.0, Item Number 73-2393-03,
 Board Revision A0, Serial Number 10081386,
 PLD/ISP Version 5.9,  Manufacture Date 12-Oct-1998.

Modem Module 0
Manufacture Cookie Info:
 EEPROM Type 0x0101, EEPROM Version 0x01, Board ID 0x06,
 Board Hardware Version 1.0, Item Number 73-2522-02,
 Board Revision C48, Serial Number 09828503,
 PLD/ISP Version <unset>,  Manufacture Date 25-Oct-1998.

Modem Module 1
Manufacture Cookie Info:
 EEPROM Type 0x0101, EEPROM Version 0x01, Board ID 0x06,
 Board Hardware Version 1.0, Item Number 73-2522-02,
 Board Revision C48, Serial Number 08559439,
 PLD/ISP Version <unset>,  Manufacture Date 21-Oct-1998.

----------------- show modem ------------------
```

```
Codes:
* - Modem has an active call
C - Call in setup
T - Back-to-Back test in progress
R - Modem is being Reset
p - Download request is pending and modem cannot be used for taking calls
D - Download in progress
B - Modem is marked bad and cannot be used for taking calls
b - Modem is either busied out or shut-down
d - DSP software download is required for achieving K56flex connections
! - Upgrade request is pending

        Avg Hold    Inc calls     Out calls     Busied    Failed    No      Succ
Mdm      Time      Succ   Fail   Succ   Fail     Out       Dial    Answer    Pct.
1/0     00:00:00     0      0      0      0        0         0        0       0%
1/1     00:00:00     0      0      0      0        0         0        0       0%
1/2     00:00:00     0      0      0      0        0         0        0       0%
1/3     00:00:00     0      0      0      0        0         0        0       0%
1/4     00:00:00     0      0      0      0        0         0        0       0%
1/5     00:00:00     0      0      0      0        0         0        0       0%
1/6     00:00:00     0      0      0      0        0         0        0       0%
1/7     00:00:00     0      0      0      0        0         0        0       0%
1/8     00:00:00     0      0      0      0        0         0        0       0%
1/9     00:00:00     0      0      0      0        0         0        0       0%
1/10    00:00:00     0      0      0      0        0         0        0       0%
1/11    00:00:00     0      0      0      0        0         0        0       0%
1/12    00:00:00     0      0      0      0        0         0        0       0%
1/13    00:00:00     0      0      0      0        0         0        0       0%
1/14    00:00:00     0      0      0      0        0         0        0       0%
1/15    00:00:00     0      0      0      0        0         0        0       0%
1/16    00:00:00     0      0      0      0        0         0        0       0%
1/17    00:00:00     0      0      0      0        0         0        0       0%
1/18    00:00:00     0      0      0      0        0         0        0       0%
1/19    00:00:00     0      0      0      0        0         0        0       0%
1/20    00:00:00     0      0      0      0        0         0        0       0%
.
.
.
```

Command Reference

The following commands are introduced or modified in the feature or features documented in this module. For information about these commands, see the *Cisco IOS Dial Technologies Command Reference* at http://www.cisco.com/en/US/docs/ios/dial/command/reference/dia_book.html. For information about all Cisco IOS commands, go to the Command Lookup Tool at http://tools.cisco.com/Support/CLILookup or to the *Cisco IOS Master Commands List*.

- **show tech-support modem**
- **show tech-support spe**