



# MICA and NextPort Modem Tech-Support Command Additions

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## Feature History

Release	Modification
12.1(13)	The commands <b>show tech-support modem</b> (for the Cisco AS5300 and AS5800 access servers) and <b>show tech-support spe</b> (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 MICA and NextPort Modem Tech-Support Command Additions and includes the following sections:

- [Feature Overview, page 1](#)
- [Supported Platforms, page 2](#)
- [Supported Standards, MIBs, and RFCs, page 3](#)
- [Configuration Tasks, page 3](#)
- [Configuration Examples, page 5](#)
- [Command Reference, page 7](#)

## 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](mailto: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# <code>show tech-support modem</code>	Runs a basic list of modem reports for the Cisco AS5300 and AS5800.
Router# <code>show tech-support modem detail</code>	Runs a detailed list of modem reports for the Cisco AS5300 and AS5800.
Router# <code>show tech-support spe</code>	Runs a basic list of modem reports for the Cisco AS5350, AS5400, AS5800, and AS5850.
Router# <code>show tech-support spe detail</code>	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:
<b>show version</b>	<b>show version</b>
<b>show running-config</b>	<b>show running-config</b>
<b>show modem version</b>	<b>show spe version</b>
<b>show modem</b>	<b>show spe</b>
<b>show modem summary</b>	<b>show spe modem summary</b>
<b>show spe version</b>	<b>show spe modem csr summary</b>
<b>show controllers t1 call-counters</b>	<b>show spe modem disconnect-reason summary</b>
<b>show controllers e1 call-counters</b>	<b>show spe recovery</b>
<b>show modem connect-speeds</b>	<b>show csm call-rate</b>
<b>show modem mapping</b>	<b>show nextport mm</b>
<b>show line</b>	<b>show controllers e1 call-counters</b>
<b>show caller</b>	<b>show controllers t1 call-counters</b>
<b>show users all</b>	<b>show line</b>
<b>Additional commands run by the show tech-support modem detail command:</b>	<b>show caller</b>
<b>show modem configuration</b>	<b>show users all</b>
<b>show modem operational-status</b>	<b>Additional commands run by the show tech-support spe detail command:</b>
<b>show modem mica all</b>	<b>show csm modem</b>
<b>show modem csm</b>	<b>show spe log</b>
<b>show modem log</b>	<b>show port modem log</b>

# 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
.
```

```
.
.
end
```

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

```
Codes:
```

```
d - DSP software download is required for achieving K56flex connections
```

Mdm	Modem module Number	Firmware Rev	Boot Rev	DSP 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
```

Mdm	Avg Hold Time	Inc calls		Out calls		Busied Out	Failed Dial	No Answer	Succ Pct.
		Succ	Fail	Succ	Fail				
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

This section documents the following new EXEC commands. All other commands used with this feature are documented in the Cisco IOS Release 12.2 command reference publications.

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

# show tech-support modem

To create a modem ISDN channel aggregation (MICA) modem functionality report on a Cisco AS5300 or AS5800 access server, use the **show tech-support modem** command in privileged EXEC mode.

**show tech-support modem [detail]**

<b>Syntax Description</b>	<b>detail</b> (Optional) Produces an extensive modem functionality report.				
<b>Defaults</b>	<b>show tech-support modem</b>				
<b>Command Modes</b>	Privileged EXEC				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>12.2(11)T</td> <td>This command was introduced for MICA modems on the Cisco AS5300 and AS5800.</td> </tr> </tbody> </table>	Release	Modification	12.2(11)T	This command was introduced for MICA modems on the Cisco AS5300 and AS5800.
Release	Modification				
12.2(11)T	This command was introduced for MICA modems on the Cisco AS5300 and AS5800.				

**Usage Guidelines**

This command is useful when information is required to troubleshoot a problem with MICA modems in the field. Customers are typically asked to send the output for a number of Cisco IOS EXEC commands. The **show tech-support modem** command provides extensive output of many EXEC commands by entering a single command.

The report displayed by the **show tech-support modem** command is the successive output of many commands. The report takes some time to run and, when captured in a buffer, can be over 100 pages in length. [Table 2](#) lists the commands run by the **show tech-support modem** command, in the order run.

*Table 2 List of Commands Run by show tech-support modem Command*

Commands Run by the show tech-support modem Command:

**show version**

**show running-config**

**show modem version**

**show modem**

**show modem summary**

**show spe version**

**show controllers t1 call-counters**

**show controllers e1 call-counters**

**show modem connect-speeds**

**show modem mapping**

**show line**

**Table 2** *List of Commands Run by show tech-support modem Command (continued)*


---

Commands Run by the show tech-support modem Command:

---

**show caller****show users all**


---

Additional Commands Run by the show tech-support modem detail Command:

---

**show modem configuration****show modem operational-status****show modem mica all****show modem csm****show modem log**


---

To interpret the modem reports, refer to the descriptions for each command listed in [Table 2](#) in the appropriate command reference manual.

---

### Examples

The following example shows how to display a basic list of modem reports:

```
Router# show tech-support modem
```

The following example shows how to display an extensive list of modem reports:

```
Router# show tech-support modem detail
```

---

### Related Commands

Command	Description
<b>execute-on</b>	Executes a command on a line card to monitor and maintain information on the card (for example, a line card on a dial shelf).

---

## show tech-support spe

To create a NextPort service processing element (SPE) modem functionality report on a Cisco AS5350, AS5400, AS5800, or AS5850 access server, use the **show tech-support spe** command in privileged EXEC mode.

**show tech-support spe [detail]**

<b>Syntax Description</b>	<b>detail</b> (Optional) Produces an extensive modem functionality report.				
<b>Defaults</b>	<b>show tech-support spe</b>				
<b>Command Modes</b>	Privileged EXEC				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>12.2(11)T</td> <td>This command was introduced for SPE modems on the Cisco AS5350, AS5400, AS5800, and AS5850.</td> </tr> </tbody> </table>	Release	Modification	12.2(11)T	This command was introduced for SPE modems on the Cisco AS5350, AS5400, AS5800, and AS5850.
Release	Modification				
12.2(11)T	This command was introduced for SPE modems on the Cisco AS5350, AS5400, AS5800, and AS5850.				

**Usage Guidelines** This command is useful when information is required to troubleshoot a problem with SPE modems in the field. Customers are typically asked to send the output for a number of Cisco IOS EXEC commands. The **show tech-support spe** command provides extensive output of many EXEC commands by entering a single command.

The report displayed by the **show tech-support spe** command is the successive output of many commands. The report takes some time to run and, when captured in a buffer, can be over 100 pages in length. [Table 3](#) summarizes the commands run by the **show tech-support spe** command.

*Table 3 List of Commands Run by show tech-support spe Command*

Commands Run by the show tech-support spe Command:

**show version**

**show running-config**

**show spe version**

**show spe**

**show spe modem summary**

**show spe modem csr summary**

**show spe modem disconnect-reason summary**

**show spe recovery**

**show csm call-rate**

**show nextport mm**

**show controllers e1 call-counters**

**Table 3** *List of Commands Run by show tech-support spe Command (continued)*


---

Commands Run by the show tech-support spe Command:

---

**show controllers t1 call-counters****show line****show caller****show users all**


---

Additional Commands Run by the show tech-support spe detail Command:

---

**show csm modem****show spe log****show port modem log**


---

To interpret the modem reports, refer to the descriptions for each command listed in [Table 3](#) in the appropriate command reference manual.

---

### Examples

The following example shows how to display a basic list of modem reports:

```
Router# show tech-support spe
```

The following example shows how to display an extensive list of modem reports:

```
Router# show tech-support spe detail
```

---

### Related Commands

Command	Description
<b>execute-on</b>	Executes a command on a line card to monitor and maintain information on the card (for example, a line card on a dial shelf).

---

■ show tech-support spe