



Voice Port Testing Enhancements in Cisco 2600 and 3600 Series Routers and MC3810 Series Concentrators

This document describes new test commands introduced in Cisco IOS Release 12.0(7)XK that expand the capabilities to analyze and troubleshoot voice ports on the Cisco 2600 and 3600 series routers and MC3810 series concentrators.

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Feature Overview

New voice-port testing commands allow the user to force voice ports into specific states for testing.

Benefits

These enhancements expand the voice-port testing and troubleshooting options available on these platforms.

Related Documents

- *Voice over IP on the Cisco MC3810*, Cisco IOS Release 12.0(7)XK Online Document
- *Voice over ATM on the Cisco 2600 and 3600 Routers*, Cisco IOS Release 12.0(7)XK Online Document

Supported Platforms

- Cisco 2600 series
- Cisco 3600 series
- Cisco MC3810 series

Supported Standards, MIBs, and RFCs

None.

Prerequisites

The voice enhancements described in this document require the use of Cisco IOS Release 12.0(7)XK or later.

Configuration Tasks

These new configuration commands are usable on the Cisco 2600, 3600, and MC3810 series platforms. Differences in usage are noted for individual commands in the command reference section.

Performing Voice-Port Tests

Complete the following tasks, as applicable, to test voice ports:

- Testing Detector-Related Functions
- Loopback Tests
- Tone Injection Tests
- Testing Relay-Related Functions
- Fax/Voice Mode Tests

Testing Detector-Related Functions

To test detector-related functions on a voice port, enter the following commands beginning in privileged EXEC mode:

| Step | Command | Purpose |
|------|--|--|
| 1 | <p>For Cisco 2600 and 3600 series analog voice ports:</p> <pre>router# test voice port slot/subunit/port detector {m-lead battery-reversal loop-current ring tip-ground ring-ground ring-trip} {on off}</pre> <p>For Cisco 2600 and 3600 series digital voice ports:</p> <pre>router# test voice port slot/port:ds0-group detector {m-lead battery-reversal loop-current ring tip-ground ring-ground ring-trip} {on off}</pre> <p>For Cisco MC3810 series analog voice ports:</p> <pre>router# test voice port slot/port detector {m-lead battery-reversal loop-current ring tip-ground ring-ground ring-trip} {on off}</pre> <p>For Cisco MC3810 series digital voice ports:</p> <pre>router# test voice port slot:ds0-group detector {m-lead battery-reversal loop-current ring tip-ground ring-ground ring-trip} {on off}</pre> | <p>Identify the voice port you want to test, enter a keyword for the detector under test, and specify whether to force it to the on or off state.</p> <p>Note Only the keywords applicable to the voice port under test are displayed.</p> |
| 2 | Perform applicable tests with the detector in the forced state. | |
| 3 | <p>For Cisco 2600 and 3600 series analog voice ports:</p> <pre>router# test voice port slot/subunit/port detector {m-lead battery-reversal loop-current ring tip-ground ring-ground ring-trip} disable</pre> <p>For Cisco 2600 and 3600 series digital voice ports:</p> <pre>router# test voice port slot/port:ds0-group detector {m-lead battery-reversal loop-current ring tip-ground ring-ground ring-trip} disable</pre> <p>For Cisco MC3810 series analog voice ports:</p> <pre>router# test voice port slot/port detector {m-lead battery-reversal loop-current ring tip-ground ring-ground ring-trip} disable</pre> <p>For Cisco MC3810 series digital voice ports:</p> <pre>router# test voice port slot:ds0-group detector {m-lead battery-reversal loop-current ring tip-ground ring-ground ring-trip} disable</pre> | <p>Identify the voice port on which you want to end the test, enter a keyword for the detector under test, and enter the keyword disable to end the forced state.</p> <p>Note Only the keywords applicable to the voice port under test are displayed.</p> |

Loopback Tests

To establish loopbacks on a voice port, enter the following commands beginning in privileged EXEC mode:

| Step | Command | Purpose |
|------|---|--|
| 1 | For Cisco 2600 and 3600 series analog voice ports: <code>router# test voice port slot/subunit/port loopback {local network}</code> For Cisco 2600 and 3600 series digital voice ports: <code>router# test voice port slot/port:ds0-group loopback {local network}</code> For Cisco MC3810 analog voice ports: <code>router# test voice port slot/port loopback {local network}</code> For Cisco MC3810 digital voice ports: <code>router# test voice port slot:ds0-group loopback {local network}</code> | Identify the voice port you want to test and enter a keyword for the loopback direction. Note A call must be established on the voice port under test. |
| 2 | Perform applicable tests with the loopback established. | |
| 3 | For Cisco 2600 and 3600 series analog voice ports: <code>router# test voice port slot/subunit/port loopback disable</code> For Cisco 2600 and 3600 series digital voice ports: <code>router# test voice port slot/port:ds0-group loopback disable</code> For Cisco MC3810 analog voice ports: <code>router# test voice port slot/port loopback disable</code> For Cisco MC3810 digital voice ports: <code>router# test voice port slot:ds0-group loopback disable</code> | Identify the voice port on which you want to end the test and enter the keyword disable to end the loopback. |

Tone Injection Tests

To inject a test tone into a voice port, enter the following commands beginning in privileged EXEC mode:

| Step | Command | Purpose |
|------|--|--|
| 1 | <p>For Cisco 2600 and 3600 series analog voice ports:</p> <pre>router# test voice port slot/subunit/port inject-tone {local network} {1000hz 2000hz 200hz 3000hz 300hz 3200hz 3400hz 500hz quiet}</pre> <p>For Cisco 2600 and 3600 series digital voice ports:</p> <pre>router# test voice port slot/port:ds0-group inject-tone {local network} {1000hz 2000hz 200hz 3000hz 300hz 3200hz 3400hz 500hz quiet}</pre> <p>For Cisco MC3810 analog voice ports:</p> <pre>router# test voice port slot/port inject-tone {local network} {1000hz 2000hz 200hz 3000hz 300hz 3200hz 3400hz 500hz quiet}</pre> <p>For Cisco MC3810 digital voice ports:</p> <pre>router# test voice port slot:ds0-group inject-tone {local network} {1000hz 2000hz 200hz 3000hz 300hz 3200hz 3400hz 500hz quiet}</pre> | <p>Identify the voice port you want to test and enter keywords for the direction to send the test tone and for the frequency of the test tone.</p> <p>Note A call must be established on the voice port under test.</p> |
| 2 | Perform applicable tests with the test tone activated. | |
| 3 | <p>For Cisco 2600 and 3600 series analog voice ports:</p> <pre>router# test voice port slot/subunit/port inject-tone disable</pre> <p>For Cisco 2600 and 3600 series digital voice ports:</p> <pre>router# test voice port slot/port:ds0-group inject-tone disable</pre> <p>For Cisco MC3810 analog voice ports:</p> <pre>router# test voice port slot/port inject-tone disable</pre> <p>For Cisco MC3810 digital voice ports:</p> <pre>router# test voice port slot:ds0-group inject-tone disable</pre> | <p>Identify the voice port on which you want to end the test and enter the keyword disable to end the test tone.</p> |

Testing Relay-Related Functions

To test relay-related functions on a voice port, enter the following commands beginning in privileged EXEC mode:

| Step | Command | Purpose |
|------|--|---|
| 1 | <p>For Cisco 2600 and 3600 series analog voice ports:</p> <pre>router# test voice port slot/subunit/port relay {e-lead loop ring-ground battery-reversal power-denial ring tip-ground} {on off}</pre> <p>For Cisco 2600 and 3600 series digital voice ports:</p> <pre>router# test voice port slot/port:ds0-group relay {e-lead loop ring-ground battery-reversal power-denial ring tip-ground} {on off}</pre> <p>For Cisco MC3810 series analog voice ports:</p> <pre>router# test voice port slot/port relay {e-lead loop ring-ground battery-reversal power-denial ring tip-ground} {on off}</pre> <p>For Cisco MC3810 series digital voice ports:</p> <pre>router# test voice port slot:ds0-group relay {e-lead loop ring-ground battery-reversal power-denial ring tip-ground} {on off}</pre> | <p>Identify the voice port you want to test, enter a keyword for the relay under test, and specify whether to force it to the on or off state.</p> <p>Note Only the keywords applicable to the voice port under test are displayed.</p> |
| 2 | <p>Perform applicable tests with the relay in the forced state.</p> | |
| 3 | <p>For Cisco 2600 and 3600 series analog voice ports:</p> <pre>router# test voice port slot/subunit/port relay {e-lead loop ring-ground battery-reversal power-denial ring tip-ground} disable</pre> <p>For Cisco 2600 and 3600 series digital voice ports:</p> <pre>router# test voice port slot/port:ds0-group relay {e-lead loop ring-ground battery-reversal power-denial ring tip-ground} disable</pre> <p>For Cisco MC3810 series analog voice ports:</p> <pre>router# test voice port slot/port relay {e-lead loop ring-ground battery-reversal power-denial ring tip-ground} disable</pre> <p>For Cisco MC3810 series digital voice ports:</p> <pre>router# test voice port slot:ds0-group relay {e-lead loop ring-ground battery-reversal power-denial ring tip-ground} disable</pre> | <p>Identify the voice port on which you want to end the test, enter a keyword for the relay under test, and enter the keyword disable to end the forced state.</p> <p>Note Only the keywords applicable to the voice port under test are displayed.</p> |

Fax/Voice Mode Tests

To force a voice port into fax mode or return it to voice mode, enter the following commands, beginning in privileged EXEC mode.

| Step | Command | Purpose |
|------|--|--|
| 1 | <p>For Cisco 2600 and 3600 series analog voice ports:</p> <pre>router# test voice port slot/subunit/port switch fax</pre> <p>For Cisco 2600 and 3600 series digital voice ports:</p> <pre>router# test voice port slot/port:ds0-group switch fax</pre> <p>For Cisco MC3810 analog voice ports:</p> <pre>router# test voice port slot/port switch fax</pre> <p>For Cisco MC3810 digital voice ports:</p> <pre>router# test voice port slot:ds0-group switch fax</pre> | Identify the voice port you want to test and enter the keyword fax to force the voice port into fax mode. |
| 2 | Perform applicable tests with the voice port in fax mode. | |
| 3 | <p>For Cisco 2600 and 3600 series analog voice ports:</p> <pre>router# test voice port slot/subunit/port switch disable</pre> <p>For Cisco 2600 and 3600 series digital voice ports:</p> <pre>router# test voice port slot/port:ds0-group switch disable</pre> <p>For Cisco MC3810 analog voice ports:</p> <pre>router# test voice port slot/port switch disable</pre> <p>For Cisco MC3810 digital voice ports:</p> <pre>router# test voice port slot:ds0-group switch disable</pre> | Identify the voice port on which you want to end the test and enter the keyword disable to return the voice port to voice mode. |

Command Reference

This section documents new commands. All other commands used on these platforms are documented in the Cisco IOS Release 12.0 command reference publications.

- **test voice port detector**
- **test voice port inject-tone**
- **test voice port loopback**
- **test voice port relay**
- **test voice port switch**

test voice port detector

To test detector-related functions on a voice port, use the **test voice port detector** privileged EXEC command.

For the Cisco 2600 and 3600 series with analog voice ports:

```
test voice port slot/subunit/port detector {m-lead | battery-reversal | ring | tip-ground | ring-ground | ring-trip} {on | off | disable}
```

For the Cisco 2600 and 3600 series with digital voice ports:

```
test voice port slot/port:ds0-group detector {m-lead | battery-reversal | ring | tip-ground | ring-ground | ring-trip} {on | off | disable}
```

For the Cisco MC3810 series with analog voice ports:

```
test voice port slot/port detector {m-lead | battery-reversal | ring | tip-ground | ring-ground | ring-trip} {on | off | disable}
```

For the Cisco MC3810 series with digital voice ports:

```
test voice port slot:ds0-group detector {m-lead | battery-reversal | ring | tip-ground | ring-ground | ring-trip} {on | off | disable}
```

Syntax Description

For the Cisco 2600 and 3600 series with analog voice ports:

| | |
|--------------------------|--|
| <i>slot/subunit/port</i> | Tests the voice port you specify with the <i>slot/subunit/port</i> designation. <i>slot</i> specifies a router slot in which a voice network module (NM) is installed. Valid entries are router slot numbers for the particular platform. <i>subunit</i> specifies a voice interface card (VIC) where the voice port is located. Valid entries are 0 and 1. <i>port</i> specifies an analog voice port number. Valid entries are 0 and 1. |
|--------------------------|--|

For the Cisco 2600 and 3600 series with digital voice ports:

| | |
|----------------------------|---|
| <i>slot/port:ds0-group</i> | Tests the voice port you specify with the <i>slot/port:ds0-group</i> designation. <i>slot</i> specifies a router slot in which the packet voice trunk network module (NM) is installed. Valid entries are router slot numbers for the particular platform. <i>port</i> specifies a T1 or E1 physical port in the voice WAN interface card (VWIC). Valid entries are 0 and 1. <i>ds0-group</i> specifies a T1 or E1 logical port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1. |
|----------------------------|---|

For the Cisco MC3810 series with analog voice ports:

slot/port Tests the voice port you specify with the *slot/port* designation.
slot is the physical slot in which the analog voice module (AVM) is installed. The *slot* is always 1 for analog voice ports in the Cisco MC3810.
port specifies an analog voice port number. Valid entries are 1 to 6.

For the Cisco MC3810 series with digital voice ports:

slot:ds0-group Tests the voice port you specify with the *slot:ds0-group* designation.
slot specifies the module (and controller). Valid entries are 0 for the MFT (controller 0) and 1 for the DVM (controller 1).
ds0-group specifies a T1 or E1 logical voice port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1.

For all platforms:

m-lead Forces the E&M m-lead detector to the specified state
loop Forces the FXO loop detector to the specified state
battery-reversal Forces the FXO battery-reversal detector to the specified state
ring Forces the FXO ringing detector to the specified state
tip-ground Forces the FXO tip-ground detector to the specified state
ring-ground Forces the FXS ring-ground detector to the specified state
ring-trip Forces the FXS ring-trip detector to the specified state
on Forces the selected item to the **on** state
off Forces the selected item to the **off** state
disable Ends the forced state for the selected item

Command Mode

Privileged EXEC

Command History

| Release | Modification |
|-----------|------------------------------|
| 12.0(7)XK | This command was introduced. |

Usage Guidelines

Use the **test voice port detector** privileged EXEC command to force a detector into specific states for testing. For each signaling type (E&M, FXO, FXS), only the applicable keywords are displayed. When you are finished testing, be sure to enter the **disable** command to end the forced state. The **disable** keyword is available only if a test condition is already activated.

Examples

The following example forces the tip-ground detector to the **off** state on an FXO voice port (1/3) on a Cisco MC3810, and ends any call in progress:

```
router# test voice port 1/3 detector tip-ground off
```

The following example ends the forced **off** state on an FXO voice port (1/3) on a Cisco MC3810:

```
router# test voice port 1/3 detector tip-ground disable
```

The following example forces the ring-trip detector to the **on** state on an FXS port (0/0/1) on a Cisco 3600 series router, and should start a call:

```
router# test voice port 0/0/1 detector ring-trip on
```

The following example ends the forced **on** state on an FXS port (0/0/1) on a Cisco 3600 series router:

```
router# test voice port 0/0/1 detector ring-trip disable
```

Related Commands

| Command | Description |
|------------------------------------|--|
| test voice port loopback | Performs loopback testing on a voice port. |
| test voice port inject-tone | Injects a test tone into a voice port. |
| test voice port relay | Tests relay-related functions on a voice port. |
| test voice port switch | Forces a voice port into fax or voice mode. |

test voice port inject-tone

To inject a test tone into a voice port, use the **test voice port inject-tone** privileged EXEC command.

For the Cisco 2600 and 3600 series with analog voice ports:

```
test voice port slot/subunit/port inject-tone {local | network} {1000hz | 2000hz | 200hz | 3000hz | 300hz | 3200hz | 3400hz | 500hz | quiet | disable}
```

For the Cisco 2600 and 3600 series with digital voice ports:

```
test voice port slot/port:ds0-group inject-tone {local | network} {1000hz | 2000hz | 200hz | 3000hz | 300hz | 3200hz | 3400hz | 500hz | quiet | disable}
```

For the Cisco MC3810 series with analog voice ports:

```
test voice port slot/port inject-tone {local | network} {1000hz | 2000hz | 200hz | 3000hz | 300hz | 3200hz | 3400hz | 500hz | quiet | disable}
```

For the Cisco MC3810 series with digital voice ports:

```
test voice port slot:ds0-group inject-tone {local | network} {1000hz | 2000hz | 200hz | 3000hz | 300hz | 3200hz | 3400hz | 500hz | quiet | disable}
```

Syntax Description

For the Cisco 2600 and 3600 series with analog voice ports:

slot/subunit/port Tests the voice port you specify with the *slot/subunit/port* designation.

slot specifies a router slot in which a voice network module (NM) is installed. Valid entries are router slot numbers for the particular platform.

subunit specifies a voice interface card (VIC) where the voice port is located. Valid entries are 0 and 1.

port specifies an analog voice port number. Valid entries are 0 and 1.

For the Cisco 2600 and 3600 series with digital voice ports:

slot/port:ds0-group Tests the voice port you specify with the *slot/port:ds0-group* designation.

slot specifies a router slot in which the packet voice trunk network module (NM) is installed. Valid entries are router slot numbers for the particular platform.

port specifies a T1 or E1 physical port in the voice WAN interface card (VWIC). Valid entries are 0 and 1.

ds0-group specifies a T1 or E1 logical port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1.

For the Cisco MC3810 series with analog voice ports:

slot/port Tests the voice port you specify with the *slot/port* designation.
slot is the physical slot in which the analog voice module (AVM) is installed. The *slot* is always 1 for analog voice ports in the Cisco MC3810.
port specifies an analog voice port number. Valid entries are 1 to 6.

For the Cisco MC3810 series with digital voice ports:

slot:ds0-group Tests the voice port you specify with the *slot:ds0-group* designation.
slot specifies the module (and controller). Valid entries are 0 for the MFT (controller 0) and 1 for the DVM (controller 1).
ds0-group specifies a T1 or E1 logical voice port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1.

For all platforms:

local Directs the injected tone toward the local interface (near end)
network Directs the injected tone toward the network (far end)
1000hz Injects a 1-kilohertz test tone
2000hz Injects a 2-kilohertz test tone
200hz Injects a 200-hertz test tone
3000hz Injects a 3-kilohertz test tone
300hz Injects a 300-hertz test tone
3200hz Injects a 3.2-kilohertz test tone
3400hz Injects a 3.4-kilohertz test tone
500hz Injects a 500-hertz test tone
quiet Injects a quiet tone
disable Ends test tone

Command Mode

Privileged EXEC

Command History

| Release | Modification |
|-----------|------------------------------|
| 12.0(7)XK | This command was introduced. |

Usage Guidelines

Use the **test voice port inject-tone** privileged EXEC and to inject a test tone or to end a test tone. A call must be established on the voice port under test. When you are finished testing, be sure to enter the **disable** command to end the test tone. The **disable** keyword is available only if a test condition is already activated.

When you enter the **disable** command, you must enter a direction (either **network** or **local**); however, you can enter either direction, regardless of which direction you entered to inject the test tone.

Examples

The following example injects a 1-kilohertz test tone into voice port 1/1, directed toward the network (far end), on a Cisco MC3810:

```
router# test voice port 1/1 inject-tone network 1khz
```

The following example removes the test tone from port 0/0/1 on a Cisco 3600 series router:

```
router# test voice port 0/0/1 inject-tone network disable
```

or

```
router# test voice port 0/0/1 inject-tone local disable
```

Related Commands

| Command | Description |
|---------------------------------|--|
| test voice port detector | Tests detector-related functions on a voice port |
| test voice port loopback | Performs loopback testing on a voice port. |
| test voice port relay | Tests relay-related functions on a voice port. |
| test voice port switch | Forces a voice port into fax or voice mode. |

test voice port loopback

To perform loopback testing on a voice port, use the **test voice port loopback** privileged EXEC command.

For the Cisco 2600 and 3600 series with analog voice ports:

```
test voice port slot/subunit/port loopback {local | network | disable}
```

For the Cisco 2600 and 3600 series with digital voice ports:

```
test voice port slot/port:ds0-group loopback {local | network | disable}
```

For the Cisco MC3810 series with analog voice ports:

```
test voice port slot/port loopback {local | network | disable}
```

For the Cisco MC3810 series with digital voice ports:

```
test voice port slot:ds0-group loopback {local | network | disable}
```

Syntax Description

For the Cisco 2600 and 3600 series with analog voice ports:

slot/subunit/port Tests the voice port you specify with the *slot/subunit/port* designation.

slot specifies a router slot in which a voice network module (NM) is installed. Valid entries are router slot numbers for the particular platform.

subunit specifies a voice interface card (VIC) where the voice port is located. Valid entries are 0 and 1.

port specifies an analog voice port number. Valid entries are 0 and 1.

For the Cisco 2600 and 3600 series with digital voice ports:

slot/port:ds0-group Tests the voice port you specify with the *slot/port:ds0-group* designation.

slot specifies a router slot in which the packet voice trunk network module (NM) is installed. Valid entries are router slot numbers for the particular platform.

port specifies a T1 or E1 physical port in the voice WAN interface card (VWIC). Valid entries are 0 and 1.

ds0-group specifies a T1 or E1 logical port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1.

For the Cisco MC3810 series with analog voice ports:

slot/port Tests the voice port you specify with the *slot/port* designation.
slot is the physical slot in which the analog voice module (AVM) is installed. The *slot* is always 1 for analog voice ports in the Cisco MC3810.
port specifies an analog voice port number. Valid entries are 1 to 6.

For the Cisco MC3810 series with digital voice ports:

slot:ds0-group Tests the voice port you specify with the *slot:ds0-group* designation.
slot specifies the module (and controller). Valid entries are 0 for the MFT (controller 0) and 1 for the DVM (controller 1).
ds0-group specifies a T1 or E1 logical voice port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1.

For all platforms:

local Forces a loopback at the voice port toward the customer premises equipment (CPE)
network Forces a loopback at the voice port toward network
disable Ends forced loopback

Command Mode

Privileged EXEC

Command History

| Release | Modification |
|-----------|------------------------------|
| 12.0(7)XK | This command was introduced. |

Usage Guidelines

Use the **test voice port loopback** privileged EXEC command to initiate or end a loopback at a voice port. A call must be established on the voice port under test. When you are finished testing, be sure to enter the **disable** command to end the forced loopback. The **disable** keyword is available only if a test condition is already activated.

Examples

The following example forces a loopback toward the CPE on voice port 1/1 on a Cisco MC3810:

```
router# test voice port 1/1 loopback local
```

The following example ends a forced loopback on port 0/0/1 on a Cisco 3600 series router:

```
router# test voice port 0/0/1 loopback disable
```

Related Commands

| Command | Description |
|------------------------------------|---|
| test voice port detector | Tests detector-related functions on a voice port. |
| test voice port inject-tone | Injects a test tone into a voice port. |
| test voice port relay | Tests relay-related functions on a voice port. |
| test voice port switch | Forces a voice port into fax or voice mode. |

test voice port relay

To test relay-related functions on a voice port, use the **test voice port relay** privileged EXEC command.

For the Cisco 2600 and 3600 series with analog voice ports:

```
test voice port slot/subunit/port relay { e-lead | loop | ring-ground | battery-reversal |
power-denial | ring | tip-ground } { on | off | disable }
```

For the Cisco 2600 and 3600 series with digital voice ports:

```
test voice port slot/port:ds0-group relay { e-lead | loop | ring-ground | battery-reversal |
power-denial | ring | tip-ground } { on | off | disable }
```

For the Cisco MC3810 series with analog voice ports:

```
test voice port slot/port relay { e-lead | loop | ring-ground | battery-reversal | power-denial |
ring | tip-ground } { on | off | disable }
```

For the Cisco MC3810 series with digital voice ports:

```
test voice port slot:ds0-group relay { e-lead | loop | ring-ground | battery-reversal |
power-denial | ring | tip-ground } { on | off | disable }
```

Syntax Description

For the Cisco 2600 and 3600 series with analog voice ports:

| | |
|--------------------------|--|
| <i>slot/subunit/port</i> | Tests the voice port you specify with the <i>slot/subunit/port</i> designation. <i>slot</i> specifies a router slot in which a voice network module (NM) is installed. Valid entries are router slot numbers for the particular platform. <i>subunit</i> specifies a voice interface card (VIC) where the voice port is located. Valid entries are 0 and 1. <i>port</i> specifies an analog voice port number. Valid entries are 0 and 1. |
|--------------------------|--|

For the Cisco 2600 and 3600 series with digital voice ports:

| | |
|----------------------------|---|
| <i>slot/port:ds0-group</i> | Tests the voice port you specify with the <i>slot/port:ds0-group</i> designation. <i>slot</i> specifies a router slot in which the packet voice trunk network module (NM) is installed. Valid entries are router slot numbers for the particular platform. <i>port</i> specifies a T1 or E1 physical port in the voice WAN interface card (VWIC). Valid entries are 0 and 1. <i>ds0-group</i> specifies a T1 or E1 logical port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1. |
|----------------------------|---|

For the Cisco MC3810 series with analog voice ports:

slot/port Tests the voice port you specify with the *slot/port* designation.
slot is the physical slot in which the analog voice module (AVM) is installed. The *slot* is always 1 for analog voice ports in the Cisco MC3810.
port specifies an analog voice port number. Valid entries are 1 to 6.

For the Cisco MC3810 series with digital voice ports:

slot:ds0-group Tests the voice port you specify with the *slot:ds0-group* designation.
slot specifies the module (and controller). Valid entries are 0 for the MFT (controller 0) and 1 for the DVM (controller 1).
ds0-group specifies a T1 or E1 logical voice port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1.

For all platforms:

e-lead Forces the E&M e-lead relay to the specified state
loop Forces the FXO loop relay to the specified state
ring-ground Forces the FXO ring-ground relay to the specified state
battery-reversal Forces the FXO battery-reversal relay to the specified state
power-denial Forces the FXS power-denial relay to the specified state
ring Forces the FXS ringing relay to the specified state
tip-ground Forces the FXS tip-ground relay to the specified state
on Forces the selected item to the **on** state
off Forces the selected item to the **off** state
disable Ends the forced state for the selected item

Command Mode

Privileged EXEC

Command History

| Release | Modification |
|-----------|------------------------------|
| 12.0(7)XK | This command was introduced. |

Usage Guidelines

Use the **test voice port relay** privileged EXEC command to force a relay into specific states for testing. For each signaling type (E&M, FXO, FXS), only the applicable keywords are displayed. When you are finished testing, be sure to enter the **disable** command to end the forced state. The **disable** keyword is available only if a test condition is already activated.

Examples

The following example forces the E&M e-lead relay to the **on** state on port 0/0/1 on a Cisco 3600 series router:

```
router# test voice port 0/0/1 relay e-lead on
```

The following example ends a forced actuation of the battery-reversal relay on an FXS port (0/0/1) on a Cisco 3600 series router:

```
router# test voice port 0/0/1 relay battery-reversal disable
```

Related Commands

| Command | Description |
|------------------------------------|--|
| test voice port detector | Tests detector-related functions on a voice port |
| test voice port inject-tone | Injects a test tone into a voice port. |
| test voice port loopback | Performs loopback testing on a voice port. |
| test voice port switch | Forces a voice port into fax or voice mode. |

test voice port switch

To force a voice port into fax mode, use the **test voice port switch** privileged EXEC command.

For the Cisco 2600 and 3600 series with analog voice ports:

```
test voice port slot/subunit/port switch {fax | disable}
```

For the Cisco 2600 and 3600 series with digital voice ports:

```
test voice port slot/port:ds0-group switch {fax | disable}
```

For the Cisco MC3810 series with analog voice ports:

```
test voice port slot/port switch {fax | disable}
```

For the Cisco MC3810 series with digital voice ports:

```
test voice port slot:ds0-group switch {fax | disable}
```

Syntax Description

For the Cisco 2600 and 3600 series with analog voice ports:

slot/subunit/port Tests the voice port you specify with the *slot/subunit/port* designation.

slot specifies a router slot in which a voice network module (NM) is installed. Valid entries are router slot numbers for the particular platform.

subunit specifies a voice interface card (VIC) where the voice port is located. Valid entries are 0 and 1.

port specifies an analog voice port number. Valid entries are 0 and 1.

For the Cisco 2600 and 3600 series with digital voice ports:

slot/port:ds0-group Tests the voice port you specify with the *slot/port:ds0-group* designation.

slot specifies a router slot in which the packet voice trunk network module (NM) is installed. Valid entries are router slot numbers for the particular platform.

port specifies a T1 or E1 physical port in the voice WAN interface card (VWIC). Valid entries are 0 and 1.

ds0-group specifies a T1 or E1 logical port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1.

For the Cisco MC3810 series with analog voice ports:

slot/port Tests the voice port you specify with the *slot/port* designation.

slot is the physical slot in which the analog voice module (AVM) is installed. The *slot* is always 1 for analog voice ports in the Cisco MC3810.

port specifies an analog voice port number. Valid entries are 1 to 6.

For the Cisco MC3810 series with digital voice ports:

slot:ds0-group Tests the voice port you specify with the *slot:ds0-group* designation. *slot* specifies the module (and controller). Valid entries are 0 for the MFT (controller 0) and 1 for the DVM (controller 1). *ds0-group* specifies a T1 or E1 logical voice port number. Valid entries are 0 to 23 for T1 and 0 to 30 for E1.

For all platforms:

fax Forces a switch to fax mode
disable Ends fax mode; switches back to voice mode

Command Mode

Privileged EXEC

Command History

| Release | Modification |
|-----------|------------------------------|
| 12.0(7)XK | This command was introduced. |

Usage Guidelines

Use the **test voice port switch** privileged EXEC command to force a voice port into fax mode for testing. If no fax data is detected by the voice port, the voice port remains in fax mode for 30 seconds and then reverts automatically to voice mode. After you enter the **test voice port switch fax** command, you can use the **show voice call** or **show voice call summary** command to check whether the voice port is able to operate in fax mode.

The **disable** command ends the forced mode switch; however, the fax mode ends automatically after 30 seconds. The **disable** keyword is available only while the voice port is in fax mode.

Examples

The following example forces voice port 1/3 on a Cisco MC3810 into fax mode:

```
router# test voice port 1/3 switch fax
```

The following example returns voice port 0/0/1 on a Cisco 3600 series router to voice mode:

```
router# test voice port 0/0/1 switch disable
```

Related Commands

| Command | Description |
|--------------------------------|---|
| show voice call | Shows the call processing and protocol state-machine information for a voice port. |
| show voice call summary | Shows a summary of the call processing and protocol state-machine information for a voice port. |

