



Release Notes for Cisco Voice Interworking Service Module Release 3.1(1)

January 2003

The Voice Interworking Service Module (VISM) product is supported by MGX Voice Media Gateways. Refer to these release notes for Media Gateway and version level support guidelines.

The software Release 3.1(1) for VISM/VISM-PR is an upgrade from the VISM 3.1(0) Release. For details related to new features added in Release 3.1, refer to *Release Notes for Cisco Voice Interworking Service Module Release 3.1(0)*.

The software Release 3.1(1) for VISM/VISM-PR is supported by the *Cisco VISM Installation and Configuration Guide*, which is available on the Web at the following locations:

- <http://www.cisco.com/univercd/cc/td/doc/product/wanbu/mgx8850/vism31>
- <http://www.cisco.com/univercd/cc/td/doc/product/wanbu/mgx8250/vism31>
- <http://www.cisco.com/univercd/cc/td/doc/product/wanbu/mgx8230/vism31>
- <http://www.cisco.com/univercd/cc/td/doc/product/wanbu/mgx8830/vism31>
- <http://www.cisco.com/univercd/cc/td/doc/product/wanbu/8850px45/release3/vism/relnotes>
- <http://www.cisco.com/univercd/cc/td/doc/product/wanbu/8850px1e/release3/vism/relnotes>

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Features Introduced in Previous Releases of VISM Software

You can access lists of features and descriptions of features contained in previous releases of VISM software at the following location:

- <http://www.cisco.com/univercd/cc/td/doc/product/wanbu/mgx8850/index.htm>

Elements of Release 3.1(1)

This section describes the following elements of software Release 3.1(1) for VISM/VISM-PR:

- “VISM Management Information Base” section on page 2
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VISM Management Information Base

The VISM Management Information Base (MIB) Version 0.0.30 is provided with the delivery of software Release 3.1(1) for VISM/VISM-PR, which bundles with the MGX 8230, MGX 8250, MGX 8830, and MGX 8850(PXM1) software on CCO and is located on the Web at the following location:

<http://www.cisco.com/kobayashi/sw-center/beta/>

When the selected FW *.tar file or FW*.zip file is downloaded, untar or unzip the file and you will find all the latest MIBs bundled with this release.

The MIB is in standard ASN.1 form and can be compiled with most standards-based MIB compilers. Refer to the MIB release notes on CCO.

New VISM/VISM-PR CLI Commands

Software Release 3.1(1) for VISM/VISM-PR includes the following new command-line interface (CLI) commands:

- **dsplinesabyte**
- **cnflinesabyte**



Note

The CLI does not have MIB variables associated with these commands. If the VISM card is reset, you must reconfigure the parameters.

dsplinesabyte

Use the **dsplinesabyte** to display the transmit and receive SA buffers.

Syntax

dsplinesabyte <line_number>

Syntax Description

| Parameter | Description |
|--------------------|-------------------------------|
| <i>line_number</i> | Line number in the range 1–8. |

Example

```
cvmgx1a.1.20.VISM8.a > dsplinesabyte 1
```

```
Line 1 Transmit SA Buffer Registers
-----
Transmit Sa4-byte Buffer:    255
Transmit Sa5-byte Buffer:    255
Transmit Sa6-byte Buffer:    255
Transmit Sa7-byte Buffer:    255
Transmit Sa8-byte Buffer:    255

Line 1 Receive SA Buffer Registers
-----
Receive Sa4-byte Buffer:     0
Receive Sa5-byte Buffer:     0
Receive Sa6-byte Buffer:     0
Receive Sa7-byte Buffer:     0
Receive Sa8-byte Buffer:     0
```

Possible errors include

- Incorrect number of parameters.
- Line number is out-of-range.

cnflinesabyte

Use the **cnflinesabyte** command to configure SA bytes on a line.

Syntax

cnflinesabyte <line_number> <sa_byte> <sa_value>

Syntax Description

| Parameter | Description |
|--------------------|--|
| <i>line_number</i> | Line number in the range 1–8. |
| <i>sa_byte</i> | Type of sabyte. <ul style="list-style-type: none"> • 1 = sa4-byte • 2 = sa5-byte • 3 = sa6-byte • 4 = sa7-byte • 5 = sa8-byte |
| <i>sa_value</i> | Range is 0–255. |

The possible error includes invalid parameters.

Example

This example shows configuring SA buffers on line 1 and displaying the results.

```
cvgmtgxl1a.1.20.VISM8.a > cnflinesabyte 1 3 0
```

```
cvgmtgxl1a.1.20.VISM8.a > dsplinesabyte 1
```

```
Line 1 Transmit SA Buffer Registers
-----
Transmit Sa4-byte Buffer:    0
Transmit Sa5-byte Buffer:   255
Transmit Sa6-byte Buffer:    0
Transmit Sa7-byte Buffer:   255
Transmit Sa8-byte Buffer:   255

Line 1 Receive SA Buffer Registers
-----
Receive Sa4-byte Buffer:    0
Receive Sa5-byte Buffer:    0
Receive Sa6-byte Buffer:    0
Receive Sa7-byte Buffer:    0
Receive Sa8-byte Buffer:    0
```

VISM Redundancy

Table 1 provides the support level for 1:N Service Module Redundancy (N = 1 through 11).

Table 1 Service Module Redundancy

| Front Card Model Number | Redundancy Support |
|-------------------------|---|
| MGX-VISM-8T1 | 1:N redundancy (bulk mode support for T1 lines only). |
| MGX-VISM-8E1 | 1:N redundancy (bulk mode support for E1 lines only). |
| MGX-VISM-PR-8T1 | 1:N redundancy (bulk mode support for T1 lines only). |
| MGX-VISM-PR-8E1 | 1:N redundancy (bulk mode support for E1 lines only). |

**Note**

You can use a VISM-PR card as a redundant card for a VISM card, but a VISM card cannot be used as a redundant card for a VISM-PR card.

There is support for Bulk Distribution using the SRM-3T3 and SRM-E (OC3) cards.

VISM Call Rate

Software Release 3.1(1) for VISM/VISM-PR handles at least 10 CAS, SS7, or PRI calls per second per VISM card.

Compatibility

VISM software interoperability with MGX 8830, MGX 8850(PXM1E), MGX 8850(PXM1), MGX 8850(PXM45), MGX 8250, and MGX 8230 platform software is listed in [Table 2](#).

Table 2 *VISM Software Interoperability*

| Product | CW2000 Name | Latest Firmware | Min. Firmware |
|------------------|-----------------|-----------------|------------------------------|
| AUSM-8E1/B | AUSM-8E1/B | 20.0.2.0 | 20.0.2.0 |
| AUSM-8T1/B | AUSM-8T1/B | 20.0.2.0 | 20.0.2.0 |
| AX-CESM-8E1 | CESM-8E1 | 10.2.00 | 10.0.22 |
| AX-CESM-8T1 | CESM-8T1 | 10.2.00 | 10.0.22 |
| AX-FRSM-8E1/E1-C | FRSM-8E1 | 20.0.1.0 | 10.0.23 |
| AX-FRSM-8T1/T1-C | FRSM-8T1 | 20.0.1.0 | 10.0.23 |
| AXSM-1-2488 | AXSM-1-2488 | 3.0.10 | 3.0.10 |
| AXSM-1-2488/B | AXSM-1-2488/B | 3.0.10 | 3.0.10 |
| AXSM-16-155 | AXSM-16-155 | 3.0.10 | 3.0.10 |
| AXSM-16-155/B | AXSM-16-155/B | 3.0.10 | 3.0.10 |
| AXSM-16-T3/E3 | AXSM-16-T3/E3 | 3.0.10 | 3.0.10 |
| AXSM-16-T3/E3/B | AXSM-16-T3/E3/B | 3.0.10 | 3.0.10 |
| AXSM-16-T3E3-E | AXSM-16-T3E3-E | 3.0.10 | 3.0.10 |
| AXSM-2-622-E | AXSM-2-622-E | 3.0.10 | 3.0.10 |
| AXSM-32-T1E1-E | AXSM-32-T1E1-E | 3.0.0 | 3.0.0 |
| AXSM-4-622 | AXSM-4-622 | 3.0.10 | 3.0.10 |
| AXSM-4-622/B | AXSM-4-622/B | 3.0.10 | 3.0.10 |
| AXSM-8-155-E | AXSM-8-155-E | 3.0.10 | 3.0.10 |
| BPX/IGX | BPX/IGX | 9.3.42 | 9.2.42 |
| CESM-8E1 | CESM-8E1 | 20.0.2.0 | 20.0.2.0 |
| CESM-8T1/B | CESM-8T1/B | 20.0.2.0 | 20.0.2.0 |
| CWM | — | 11.0.10 | 10.5.10 ¹ patch 1 |
| FRSM-12-T3E3 | FRSM-12-T3E3 | 3.0.10 | 3.0.10 |

Table 2 *VISM Software Interoperability (continued)*

| Product | CW2000 Name | Latest Firmware | Min. Firmware |
|--------------------------|----------------|-----------------|------------------|
| MGX 1 | MGX 1 | 1.2.11 | 1.1.42 |
| MGX 2 | MGX 2 | 3.0.10 | 2.1.80 |
| MGX-AUSM-8E1/B | AUSMB-8E1 | 10.2.00 | 10.0.23 |
| MGX-AUSM-8T1/B | AUSMB-8T1 | 10.2.00 | 10.0.23 |
| MGX-CESM-8T1/B | CESM-8T1/B | 10.2.00 | — |
| MGX-CESM-E3 | CESM-E3 | 10.2.00 | 10.0.22 |
| MGX-CESM-T3 | CESM-T3 | 10.2.00 | 10.0.22 |
| MGX-FRSM-2CT3 | FRSM-2CT3 | 10.2.00 | 10.0.23 |
| MGX-FRSM-2T3E3 | FRSM-2T3 | 10.2.00 | 10.0.23 |
| MGX-FRSM-2T3E3 | FRSM-2E3 | 10.2.00 | 10.0.23 |
| MGX-FRSM-HS1/B | FRSM-HS1/B | 10.2.00 | 10.0.23 |
| MGX-FRSM-HS2 | FRSM-HS2 | 10.2.00 | 10.0.23 |
| MGX-FRSM-HS2/B | FRSM-HS2/B | 20.0.1.0 | — |
| MGX-RPM-XF-512 | MGX-RPM-XF-512 | 12.2(11)YP | 12.2(8)YP |
| MGX-SRM-3T3/B | SRM-3T3 | — | — |
| MGX-SRM-E | SRM-E | — | — |
| MGX-VISM-8E1 | VISM-8E1 | 3.1(1) | 1.5 |
| MGX-VISM-8T1 | VISM-8T1 | 3.1(1) | 1.5 |
| MGX-VISM-PR-8E1 | VISM-PR-8E1 | 3.1(1) | 3.1(0) |
| MGX-VISM-PR-8T1 | VISM-PR-8T1 | 3.1(1) | 3.1(0) |
| PXM1 ² | PXM-1 | 1.2.10 | 1.1.40 and 1.2.0 |
| PXM1-1-622 ¹ | PXM1-OC12 | 1.2.10 | 1.1.40 and 1.2.0 |
| PXM1-2-T3E3 ¹ | PXM1-2T3E3 | 1.2.10 | 1.1.40 and 1.2.0 |
| PXM1-4-155 ¹ | PXM1-4OC3 | 1.2.10 | 1.1.40 and 1.2.0 |
| PXM1E | PXM1E | 3.0.10 | 3.0.10 |
| PXM45 | PXM45 | 3.0.10 | 3.0.10 |
| RPM | RPM | 12.2(8)T4 | 12.2(8)T4 |
| RPM IOS | RPM IOS | 12.2(8)T4 | — |
| RPM/B | RPM/B | 12.2(8)T4 | 12.2(8)T4 |
| RPM-PR | RPM-PR | 12.2(11)T1 | 12.2(8)T4 |
| MGX-RPM-XF | RPM-XF | 12.2(11)YP | 12.2(11)YP |
| MGX-RPM-PR-256/512 | RPM-PF | 12.2(11)T1 | 12.2(11)T1 |
| SES | SES | 3.0.10 | 1.0.14 |

1. CWM Release 10.5 does not support all of the new MIBs listed in the “[VISM Management Information Base](#)” section on page 2.
2. This card is available for VISM cards only.

VISM software interoperability with other Cisco products is described in [Table 3](#).

Table 3 *Software Release 3.1(1) for VISM/VISM-PR Interoperability with Other Cisco Products*

| | |
|------------------------------------|-----------|
| Cisco 3810 | 12.2(8)T1 |
| AS5400 | 122-10.7 |
| Virtual Switch Controller Software | VSC 9.1.5 |

[Table 4](#) describes the software images available for Release 3.1(1) for VISM/VISM-PR.

Table 4 *Software Images for Release 3.1(1) for VISM/VISM-PR*

| Product Name | Software Image | Firmware | Description |
|-------------------|-----------------|--|---|
| MGX-VISM-SW3100 | 003.001.000.000 | vism_8t1e1_003.001.000.000.fw | This image does not support the CALEA ¹ feature. |
| MGX-VISM-LISW3100 | 003.051.000.000 | vism_8t1e1_003.051.000.000.fw ² | Use this image for CALEA ¹ feature support. |

1. CALEA = Commission on Accreditation for Law Enforcement Agencies.
2. The CALEA implementation supports the CALEA law intercept confirmation interface.S

[Table 5](#) describes the software boot code and run-time firmware requirements for software Release 3.1(1) for VISM/VISM-PR.

Table 5 *Software Release 3.1(1) for VISM/VISM-PR Software Boot and Run-time Firmware Requirements*

| Board Pair | Latest Boot Code Version | Minimum Boot Code Version |
|-----------------|-----------------------------|-----------------------------|
| MGX-VISM-8T1 | vism_8t1e1_VI8_BT_3.1.01.fw | vism_8t1e1_VI8_BT_3.1.00.fw |
| MGX-VISM-8E1 | vism_8t1e1_VI8_BT_3.1.01.fw | vism_8t1e1_VI8_BT_3.1.00.fw |
| MGX-VISM-PR-8T1 | vism_8t1e1_VI8_BT_3.1.01.fw | vism_8t1e1_VI8_BT_3.1.00.fw |
| MGX-VISM-PR-8E1 | vism_8t1e1_VI8_BT_3.1.01.fw | vism_8t1e1_VI8_BT_3.1.00.fw |



Note

Loading this release of the backup bootcode is required for existing VISM cards not using this new release.

Limitations and Restrictions

The following limitations and restrictions are valid for software Release 3.1(1) for VISM/VISM-PR:

- Software Release 3.1(1) for VISM/VISM-PR requires you to use 64 Mb VISM cards or VISM-PR cards exclusively.
- The switched AAL2 PVC operating mode is not supported in software Release 3.1(1) for VISM/VISM-PR.

- Cisco recommends that you use the **cnfcodecjtrdelay** command to configure the *jitter-delay* argument to 20 msec when using DSP firmware versions 3.4 and 3.6.
- [Table 6](#) describes the design constraint which is identified in software Release 3.1(1) for VISM/VISM-PR.

Table 6 *Known Design Constraint*

| DDTS Issue | Description |
|------------|--|
| CSCdv37382 | The addcid command can put VISM into the fail state. If non-AAL5 cells are sent to an AAL5 PVC of VISM, this can cause the VISM SAR chip to hang and VISM to go into failed state. This is because, in case of AAL5, the last bit of the Payload type indicator is used to determine which cell contains the end of that payload. All cells which have this bit set to 0 are held in the reassembly buffer until the cell with this bit set to 1 arrives. In case of non-AAL5 cells, this bit will never get set to 1, and ultimately this buffer will overflow. So, care should be taken that only AAL5 cells are sent to AAL5 PVCs of VISM. |

Installation and Upgrade Procedures

This section describes the following installation and upgrade procedures:

- [“VISM Firmware and Boot Code Download Procedure for PXM1”](#) section on page 8
- [“VISM Firmware and Boot Code Download Procedure for PXM1E and PXM45”](#) section on page 9
- [“VISM/VISM-PR Firmware Upgrade”](#) section on page 9
- [“VISM to VISM-PR Hardware Upgrade”](#) section on page 11
- [“Installing VISM Software Updates with PXM1 Cards”](#) section on page 11
- [“VISM Boot Code Upgrade Procedure with PXM1 Cards”](#) section on page 13
- [“VISM Downgrade Procedure”](#) section on page 14

VISM Firmware and Boot Code Download Procedure for PXM1

-
- Step 1** Download the selected revision of service module boot code into the service module in the selected slot by issuing the following commands.
- ftfp** <node_name or IP address>
 - bin**
 - put** <backup boot> POPEYE@SM_1_0.BT
 - quit**
- Step 2** Proceed to [Step 2c.](#) to upgrade all VISM cards or proceed to [Step 2d.](#) to upgrade an individual VISM card.
- ftfp** <node_name or IP address>
 - bin**
 - put** <FW file> POPEYE@SM_1_0.FW
 - quit**

- d. **put** <FW file> POPEYE@SM_1_<slot number of card to upgrade>.FW
quit



Note Do not enter two **put** commands in the same TFTP session.

- Step 3** Proceed to the “[Installing VISM Software Updates with PXM1 Cards](#)” section on page 11 to install the download.

VISM Firmware and Boot Code Download Procedure for PXM1E and PXM45

- Step 1** Access the image on the Cisco Web site in order to download the image.
- Step 2** Use the **ftp node-ip** command, where *node-ip* is the IP address of the node to which you want to download the image, to download the image.
- Step 3** Enter your username and password.
- Step 4** Type **cd C:FW** to access the appropriate directory.
- Step 5** Type **bin**.
- Step 6** Use the **put image-version**, where *image-version* is the downloaded image from [Step 1](#), to download the image to your C:FW directory.
- Step 7** Type **bye** to exit the download procedure.

VISM/VISM-PR Firmware Upgrade

Software Release 3.1(1) for VISM/VISM-PR introduces the new VISM-PR card. Complete the following steps to gracefully upgrade from VISM cards to VISM-PR cards. You must ensure that the VISM and VISM-PR cards have the minimum boot code version of `vism_8t1e1_BT_3.1.00.fw`.

The following versions of VISM software Release 3.1(1) are available:

- 300.001.000.000—without CALEA
- 003.051.000.000—with CALEA



Note You do not have to complete these instructions in order to use software Release 3.1(1) for VISM/VISM-PR; however, see the VISM Features section of the *Release Notes for Cisco Voice Interworking Service Module Release 3.1(0)* of features that are not available to you if you do not perform this upgrade procedure.

VISM cards and VISM-PR cards use the same back cards. There are no new back cards introduced with this release. In the following procedure:

- Perform the firmware upgrade in the following procedure on the VISM cards; do not remove the VISM cards and replace them with VISM-PR cards at this time.

- Two VISM cards are involved in a redundancy group, initially with the primary card in the active state and the secondary card in the standby state.
- Old-rev refers to the firmware before the upgrade (2.2).
- New-rev refers to the firmware after the upgrade (3.1).

Step 1 Log in to the active PXM1 card (slot 7 or 8).

Step 2 Save the existing configuration as a contingency plan by entering:

savesmcf <SM slot#>

This will save the existing configuration in the C:CNF directory. This file can be used during the downgrade procedure, if necessary.

Step 3 Execute the PXM **install** command:

install sm <SM slot#> <new-rev>

where:

SM slot# is the slot number of the primary VISM card and new-rev is the file name of the new firmware (for example, vism_8t1e1_300.001.000.000.fw).

This command causes the secondary VISM card to reset and come up in the standby state, running the new-rev firmware. The primary VISM card is unaffected by this command.

Step 4 Execute the PXM **newrev** command:

newrev sm <SM slot#> <new-rev>

where:

SM slot# is the slot number of the primary VISM card and new-rev is the filename of the new firmware.

This command causes the primary VISM to reset and the secondary VISM card to become the active VISM running the new-rev firmware.

Step 5 Execute the PXM **commit** command:

commit sm <SMslot#> <new-rev>

where:

SM slot# is the slot number of the primary VISM card and new-rev is the filename of the new firmware.

The two VISM cards are now back to their original condition except that both cards are now running the new-rev firmware.

Step 6 Log in to the active VISM card and use the display commands (dspendpts, dspcasvar, etc.) to confirm that the configuration has been preserved through the upgrade process.



Note

For more than one primary VISM card in a redundancy group, ensure that the secondary card is in the standby state and repeat [Step 4](#) and [Step 5](#) for each VISM card in the redundancy group.

It is also recommended that a further verification be performed by making some minor modifications to the configuration, checking that the changes have been executed correctly, and then changing the configuration back again.

**Note**

If the VISM card is not part of a redundancy group, [Step 1](#) to [Step 3](#) are sufficient.

VISM to VISM-PR Hardware Upgrade

Complete the following steps to upgrade your system from VISM cards to VISM-PR cards.

**Caution**

You must install the redundant (standby) VISM-PR card first; failure to follow this recommendation results in traffic loss. In addition, do not remove an active VISM card from your chassis; ensure that you configure an active VISM card to the standby state before you remove it and replace it with a VISM-PR card.

-
- Step 1** Remove the redundant (standby) VISM card from your chassis.
 - Step 2** Install a VISM-PR card in the slot you removed the VISM card from in [Step 1](#).
 - Step 3** Administratively configure the VISM-PR card you installed in [Step 2](#) as primary (active).
 - Step 4** Remove the now redundant VISM card from your chassis.
 - Step 5** Install a VISM-PR card in the slot you removed the VISM card from in [Step 4](#).
 - Step 6** Log into the redundant (secondary) VISM-PR card and execute the **dspcd** command. Verify that the output from the **dspcd** command lists the card type under FunctionModuleType as a VISM-PR card. If the card type still indicates the VISM card, execute the **resetcd slot-num** command from the PXM and repeat the **dspcd** command to insure that the correct card type is shown.
 - Step 7** Log into the active VISM-PR card and execute the **dspcd** command. Verify that the output from the **dspcd** command lists the card type under FunctionModuleType as a VISM-PR card. If the card type still indicates the VISM card, execute the **resetcd slot-num** command from the PXM and repeat the **dspcd** command to insure that the correct card type is shown.
 - Step 8** If you have no other VISM cards in your chassis, you have completed the hardware upgrade procedure; do not proceed to [Step 9](#). If you have more VISM cards in your chassis, proceed to [Step 9](#).
 - Step 9** Remove a standby VISM card from your chassis.
 - Step 10** Install a VISM-PR card in the slot you removed the VISM card from in [Step 9](#).
 - Step 11** Repeat [Step 9](#) and [Step 10](#) to remove any remaining VISM cards in your chassis and replace them with VISM-PR cards.
 - Step 12** Repeat [Step 6](#) and [Step 7](#) on the remaining VISM-PR cards to insure the correct card type is shown.
-

Installing VISM Software Updates with PXM1 Cards

Software Release 3.1(1) for VISM/VISM-PR provides a procedure for the graceful upgrade (one in which the existing VISM configuration is preserved throughout the upgrade procedure) from the earlier VISM 2.0 release.

**Caution**

Installing VISM software updates from VISM Release 2.2 with CALEA to VISM Release 3.0 without CALEA is not graceful.

**Caution**

Temporary traffic loss occurs during [Step 4](#) and [Step 5](#) of the VISM graceful upgrade procedure of the [Upgrade Procedure](#) for software Release 3.1(1) for VISM/VISM-PR.

Initial Conditions

The following initial conditions are required before the graceful upgrade procedure can be started:

- The MGX 8000 Series shelf must be configured with at least two VISM cards in a redundant configuration (refer to the add redundancy, **addred**, command in the MGX 8830, MGX 8850, MGX 8250, and MGX 8230 Command Reference documentation for more information).
- The VISM cards must be running VISM 2.0 and be configured to the desired configuration.
- The software Release 3.1(1) for VISM/VISM-PR must have been already downloaded to the MGX shelf.
- Ensure that you have the version of VISM software that supports CALEA, if you are using the CALEA feature.

Upgrade Procedure

Upgrades are available for the following releases:

- From VISM 1.5 to VISM 3.1
- From VISM 2.1 to VISM 3.1
- From VISM 2.2 to VISM 3.1
- From VISM 3.0 to VISM 3.1

Installing VISM Software Updates with PXM1E or PXM45 Cards

Complete the following steps to update the VISM software when you are using PXM1E or PXM45 cards in your MGX 8000 Series chassis:

-
- Step 1** Log on to the active PXM1E or PXM45 card.
 - Step 2** Ensure that the card is in the redundant mode, where the active card is the primary card.
 - Step 3** Use the **saveallcnf** command to save the existing configuration as a contingency plan.
 - Step 4** Use the **loadrev** *sm-primary-slot-num new-rev* command, where *sm-primary-slot-num* is the slot number of the VISM/VISM-PR card you want to install the new software, and *new-rev* is the new firmware version number for the VISM software.
 - Step 5** Use the **runrev** *sm-primary-slot-num new-rev* command to execute the download.
 - Step 6** Use the **commitrev** *sm-primary-slot-num new-rev* command to commit the new download to the VISM/VISM-PR card.

You have completed the steps. Proceed to the [VISM Boot Code Upgrade Procedure with PXM1E and PXM45 Cards](#), page 14.

VISM Boot Code Upgrade Procedure with PXM1 Cards

There is a new backup boot code change from VISM Release 2.2(0) to software Release 3.1(1) for VISM/VISM-PR. Complete the following steps to upgrade the new backup boot code when you are using PXM1 cards in your MGX 8230, MGX 8250, and MGX 8850 chassis:



Note This procedure re-programs the VISM boot code for previous VISM s using the VISM runtime image version 1.0 to 2.0.

Step 1 Telnet to MGX shelf and **cc** to the VISM card.



Note VISM must be in the active state in order to update the VISM boot code.

Step 2 Access the server where the VISM boot code resides and TFTP the VISM boot code to the VISM card with the following procedure:

- a. Type **tftp** <IP address of the MGX shelf>
- b. Type **bin** at the tftp prompt.



Caution Ensure that you perform [Step 2b](#). If you do not perform [Step 2b](#), the boot code will be corrupted and not recoverable.

- c. Type **install** [bt] [sm <slot>] <version> at the PXM prompt.



Caution Do not touch the VISM card until the status comes back ('Sent xxx bytes in yyy seconds'). Failure to follow this recommendation will corrupt the boot code and it will not be recoverable.

When the boot code is being written to PROM, you will see comments displayed at the VISM prompt. This is normal and expected behavior.

Step 3 Use the **resetcd** command for VISM from the PXM card for the latest boot to take effect.

Step 4 Type the **version** command to verify the correct boot code.



Note [Step 4](#) is optional.

You have completed upgrading the new VISM backup boot code.

VISM Boot Code Upgrade Procedure with PXM1E and PXM45 Cards

There is a new backup boot code change from VISM Release 2.2(0) to software Release 3.1(1) for VISM/VISM-PR. Complete the following steps to upgrade the new backup boot code when you are using PXM1E or PXM45 cards in your MGX 8000 Series chassis:

-
- Step 1 Complete the steps in the [VISM Firmware and Boot Code Download Procedure for PXM1E and PXM45, page 9](#).
 - Step 2 Log on to the PXM1E or PXM45 card.
 - Step 3 Use the **burnboot** *sm-primary-slot-num new-rev* command, where *sm-primary-slot-num* is the slot number of the VISM/VISM-PR card you want to upgrade and *new-rev* is the firmware version number of the new VISM software, to upgrade the VISM/VISM-PR boot code.

The VISM/VISM-PR card automatically resets and becomes active with the latest boot code image. You have completed the boot code upgrade procedure.

VISM Downgrade Procedure

Use this procedure to downgrade VISM software from software Release 3.1(1) for VISM to the earlier VISM Releases 3.1, 3.0, 2.2, 2.1, and 2.0. By following the downgrade procedure described here, the configurations will be retained after downgrade.



Note

It is important to note that the configurations that existed with old-rev firmware should have been saved earlier. You cannot downgrade from VISM-PR to VISM.

Complete the following steps to downgrade the VISM software from software Release 3.1(1) for VISM/VISM-PR to Release 3.1, 3.0, 2.2, 2.1, or 2.0:

- Step 1 If the VISM card is in a redundancy group, remove the redundancy.

delred <SM slot#>

- Step 2 Download the old-rev firmware onto the MGX shelf.

- Step 3 Execute the PXM **clrmscnf** command:

clrmscnf <SM slot#>

where:

SM slot# is the slot number of the VISM card to be downgraded.

The VISM card will be reset on executing this command. Wait for the card to come active.

- Step 4 Execute the PXM **restorescnf** command:

restorescnf -f <filename> -s <SM slot#>

where:

The filename is the name of the old configuration file that was saved while the old-rev firmware was running. The file can be found in the C:CNF directory on the MGX shelf.

The SM slot# is the slot number of the VISM card to be downgraded.

The VISM card will be reset again. When the card comes active, it will have the old-rev firmware running and will have the old configuration.

Step 5 Reconfigure redundancy group, if required.

Caveats

This section describes resolved and open software caveats for this release of VISM. Caveats describe unexpected behavior or defects in VISM software.

Resolved Caveats

[Table 7](#) describes the caveats issued against VISM software that have been resolved in software Release 3.1(1) for VISM/VISM-PR.

Table 7 *Resolved Caveats for Software Release 3.1(1) for VISM/VISM-PR*

| DDTS Issue | Description |
|------------|---|
| CSCuk38197 | VISM replies Line Out Of Service to AUEP after cnflnoos/cnflnis. |
| CSCdw65362 | Announcement file play volume is too high, causes distortion. |
| CSCdy26382 | VISM encapsulates UDPTL for T.38 over RTP |
| CSCdy36418 | CSCdy36418 VISM-PR card must be reset after initial installation into MGX shelf |
| CSCdy39693 | Demotion from GW to Line is not happening |
| CSCdy46975 | vismscalarchange trap not generated with ip address change |
| CSCdy87408 | POS problem, modem calls failing with G729 codec |
| CSCdy89344 | endpts stay active even when gw. is forced oos |
| CSCdy89423 | DLCX always sent to Inactive call agent |
| CSCdy89462 | need a command to display VCCI |
| CSCdy89474 | cnfoamparams / dspoamparams should be accessible in all mode |
| CSCdy89494 | dspmgcgrps and dspdnallips show different status for MGC |
| CSCdz00374 | POS problem, modem calls failing with G729 codec |
| CSCdz01636 | VISM Reboots when Domain Name has a lengthy name |
| CSCdz06991 | E1 CCS NFAS bits not configurable |
| CSCdz12617 | T38 Fax call made on VISM to 5400 causes VISM DSP to crash |
| CSCdz32964 | Dynamic Payload broken due to file merge |

Open Caveats

Table 8 describes possible unexpected behavior by software Release 3.1(1) for VISM/VISM-PR.

Table 8 *Open Caveats for Software Release 3.1(1) for VISM/VISM-PR*

| DDTS Issue | Description |
|------------|---|
| CSCdx94130 | <p>Title: VISM loses some DTMF digits when ON time is less than 45ms</p> <p>Description: VISM randomly fails to detect some of the digits resulting in call failure.</p> <p>Workaround: The equipment should generate DTMF digits with ON time greater than or equal to 45ms.</p> |
| CSCdz65510 | <p>Title: CSCdz65510 T.38 calls fail in Voip Trunking</p> <p>Description: When using ISDN PRI backhaul in Voip Trunking on VISM-T1, running a load of 23 T.38 Fax Relay calls can cause the backhaul LAPD session to intermittently go down.</p> <p>Workaround: The problem is related to VISM only and was not experienced on VISM-PR when running a similar T.38 Fax relay load. However, if VISM-PRs are not available and VISM is the only option, use fax pass through instead, if higher number of T.38 fax calls is expected, since this problem was not experienced when running corresponding load via fax pass through over the ISDN Backhaul in Voip Trunking.</p> |
| CSCdz65552 | <p>Title: Running Fax Pass-Thru load over ISDN PRI fails in VoIP Switching mode</p> <p>Description: On a VISM-T1 in Voip Switching mode, running a fax pass thru call load over ISDN PRI for extended periods of time causes call completion rate to go down.</p> |
| CSCdz64830 | <p>Title: Broadcasting T.38 FAX relay on 20+ endpoints on a VISM card fails</p> <p>Description: When running on VISM-T1 in Voip Switching mode, running a sustained load of more than 20 fax calls via T.38 relay causes the VISM card to lockup and starts failing the calls. This is a performance issue and is experienced when running a higher number of T.38 fax calls.</p> <p>Workaround: This problem is not experienced when running a similar T.38 Fax load on the VISM-PR card.</p> |
| CSCdz64206 | <p>Title: Degradation of voice quality when multiple announcement RQNTs sent</p> <p>Description: Degradation of voice quality was observed when playing announcement concurrently on all 240 endpoints on a VISM-E1.</p> <p>Workaround: It was observed that voice quality is fine up to 185 endpoints, but it starts to progressively deteriorate beyond that. Therefore, it is not expected to have significant impact on VISM-T1, which supports up to 192 endpoints.</p> |

Related Documentation

The following documents contains information that may be useful to software Release 3.1(1) for VISM/VISM-PR:

- *Cisco VISM Installation and Configuration Guide, Release 3.0*
- *Cisco MGX 8830, MGX 8850 (PXM45 and PXM1E), and MGX 8950 Command Reference, Release 3*
- *Cisco MGX 8850 (PXM45 and PXM1E) Hardware Installation Guide, Release 3*
- *Cisco MGX 8850 (PXM45) and MGX 8950 Software Configuration Guide, Release 3*

Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

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We categorize Cisco TAC inquiries according to urgency:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

Cisco TAC Website

You can use the Cisco TAC website to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC website, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

<http://tools.cisco.com/RPF/register/register.do>

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC website, you can open a case online at this URL:

<http://www.cisco.com/en/US/support/index.html>

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC website so that you can describe the situation in your own words and attach any necessary files.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

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http://www.cisco.com/en/US/products/products_catalog_links_launch.html
- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary*, *Internetworking Technology Handbook*, *Internetworking Troubleshooting Guide*, and the *Internetworking Design Guide*. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco monthly periodical that provides industry professionals with the latest information about the field of networking. You can access *Packet* magazine at this URL:
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- *iQ Magazine* is the Cisco monthly periodical that provides business leaders and decision makers with the latest information about the networking industry. You can access *iQ Magazine* at this URL:
http://business.cisco.com/prod/tree.taf%3fasset_id=44699&public_view=true&kbns=1.html
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in the design, development, and operation of public and private internets and intranets. You can access the *Internet Protocol Journal* at this URL:
http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html
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