



2.0.(0) Version Release Notes Cisco MGX 8850 VISM

About These Release Notes

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About the 2.0.(0) Release

The 2.0.(0) release is an upgrade of the VISM 1.5.05 release. This release contains all the features and functions of the 1.5.05 release and, in addition, has the ability to backhaul ISDN PRI signaling from the TDM network to the Call Agent. This release is compatible with the MGX 8850 release 1.1.24

About the 1.5.05 Release

The 1.5.05 release is a maintenance upgrade of the VISM 1.5.04 release with some minor feature enhancements and a small number of corrected anomalies. This release is compatible with the MGX 8850 release 1.1.24



About the 1.5.04 Release

The 1.5.04 release is a maintenance upgrade of the VISM 1.5.03 release with a small number of Anomalies being corrected. There is also better support for E1 lines. This release is compatible with the MGX 8850 release 1.1.23.

About the 1.5.03 Release

The 1.5.03 release is a maintenance upgrade of the VISM 1.5.02 release with a small number of Anomalies being corrected. This release is compatible with the MGX 8850 release 1.1.23.

About the 1.5.02 Release

The previous release of VISM, known as Release 1.5.01, was part of the general MGX 8850 Release 1.1.22.

VISM releases have now been unbundled from the MGX8850.

This VISM release, known as Release 1.5.02, is, therefore, an independent VISM software release that stands alone and is not part of a general MGX 8850 release. There are, however, compatibility issues regarding which release of VISM can operate with which release of the MGX 8850 and other Cisco products, see the Compatibility section of these release notes for details.

The update procedure included in these release notes should be noted to work around a `clrsmcnf` problem on slots with VISM cards.

Features

This section lists the features supported in each of the VISM 2.0 and VISM 1.5.x releases.

Features Introduced in Release 2.0.(0)

CCS/PRI backhaul between VISM and a Call Agent in VoIP mode.

Features Introduced in Release 1.5.05

Idle channel suppression.
Support for setting the IP precedence bit.
Support for Q.50 CAS signaling variant
Negotiable packetization period.

Features Introduced in Release 1.5.04

E1 Backcard support in AAL2 Trunking Mode.

AAL2 sub-cell multiplexing.

Features Introduced in Release 1.5.03

None

Features Introduced in Release 1.5.02

VISM 1.5.02 includes all the features included with Release 1.5.01 and introduces the following new features:

- E1 backcard support (VoIP mode only).
- The following new CLI commands
 dsploops - display line and endpoing loopbacks
 pingIndsp - display the health of DSPs for a specified line
 dsplnendptstatus - display endpoint status for a specified line.
- The addcon command has been modified to allow the user to specify the local VCI to be used for the connection.

Features Introduced in Release 1.5.01

The features provided in VISM 1.5.01 are:

- Provides 8 standard T1 interfaces with B8ZS, AMI & HDB3 line coding.
- Support for voice over ATM using AAL 2 cells (multiplexing only, no LLC/SNAP encapsulation).
- Voice over IP (VoIP) using AAL5 cells to RFC 1889.
- Support for both PCM a-law and u-law.
- Programmable 24, 32, 48, 64, 80, 96, 112, 128 ms near end echo cancellation.
- Voice compression to G.711 and G.726-32K standards.
- Nx64 clear channel (N = 1 only) support.
- Voice activity detection (VAD) and comfort noise generation (CNG) using variable threshold energy (Cisco proprietary).
- Support for call agent Simple Gateway Control Protocol (SGCP) version 1.0, SGCP 1.1+, and Media Gateway Control Protocol (MGCP) 0.1.
- Support for CCS signaling transport across an AAL5 trunk.
- Support for Fax and modem VoIP bearer transmissions.
- Support for dual (redundant) virtual circuits across the packet network
- Support for full continuity testing (COT). Supports origination and terminating loopback and transponder COT towards the packet bearer and the TDM sides.
- Support for looptiming, payload and line loopbacks.
- 1:N cold redundancy using SRM-3T3 capabilities (bulk mode support for T1 lines only). Call do not persist during switchover.

- Courtesy downing of ongoing voice calls when the VISM is taken out of service for maintenance or other reasons.

Release 2.0.(0) VISM Hardware

VISM hardware consists of two versions of a front card, one supporting T1 and one supporting E1.

The following versions of back card are supported by VISM Rel. 2.0.(0):

An 8-port T1 version using RJ48 connectors.

An 8-port E1 version using RJ48 connectors.

An 8-port E1 version using SMB connectors.

Each of the above backcards also has a redundant version.

Release 1.5.05 hardware front cards and back cards and their revisions that are supported are as follows:

Front card model #	Rev #	Back card model #	Rev #
Ax-VISM-8T1	B1	AX-RJ48-8T1	A
		AX-R-RJ48-8T1	A
AX-VISM-8E1	B1	AX-SMB-8/E1	A
		AX-R-SMB-8E1	A
		AX-RJ48-8/E1	A
		AX-R-RJ48-8E1	A



Note

The E1 versions of the above front and back cards are supported only when VISM is operating in VoIP mode.

VISM Hardware not supported on Release 2.0.(0)

None

Redundancy

Support for 1:N and 1:1 Service Module Redundancy, as indicated in the table below:

Front card model #	Redundancy supported
MGX-VISM-8T1	1:N redundancy (bulk mode support for T1 lines only)
MGX-VISM-8E1	1:N redundancy (bulk mode support for T1 lines only)

Support for Bulk Distribution using SRM-3T3B card.

Features not Supported in this Release:

- T1/CAS Backhaul
- VBR Provisioning - Although the CLI allows the user to specify VBR (variable bit rate), VISM does not actually provision the card for VBR in this release.
- ABR/UBR Provisioning - These connections are not supported in this release and not connections are made when these parameters are specified by the user through the CLI.
- Of the total of 248 ds0's on 8 E1 lines, support is for 240 ds0's only.



Note

Code for the above features may be included in the VISM code image. However, no specific mechanism has been included to prevent the use of these unsupported features. If the user attempts to use these unsupported features, there is no guarantee that the features will operate correctly.

VISM MIB:

The VISM MIB is being provided with the delivery of Release 2.0.(0) of the VISM software bundles with the MGX 8850 software on CCO and is located at:

<http://www.cisco.com/kobayashi/sw-center/wan/wan-planner.shtml>

Under MGX8850, select the release (in this case 1.1.24) and click GO.

When the selected FW *.tar file is downloaded, un tar the file & you will find all the latest MIBs bundled with this release.

The MIB is in standard ASN.1 form and may be compiled with most standards-based MIB compilers. For changes in this MIB from release 1.5.01 please refer to the MIB release notes on CCO.



Note

Among the new MIB's in this release, there are 3 MIB's that are not related to the features in this release and are not used in this release. They are:

```
vismXgcpBearerNetworkType
vismXgcpBearerVCType
vismXgcpBearerConnectionType
```

Notes and Cautions for Release 2.0.(0)

Do NOT upgrade the VISM backup boot firmware as this may render the VISM card inoperable.

None - All other Notes and Cautions for Release 1.5.02 still apply (see below).

Notes and Cautions for Release 1.5.05

Do NOT upgrade the VISM backup boot firmware as this may render the VISM card inoperable.

None - All other Notes and Cautions for Release 1.5.02 still apply (see below).

Notes and Cautions for Release 1.5.04

Do NOT upgrade the VISM backup boot firmware as this may render the VISM card inoperable.
None - All other Notes and Cautions for Release 1.5.02 still apply (see below).

Notes and Cautions for Release 1.5.03

Do NOT upgrade the VISM backup boot firmware as this may render the VISM card inoperable.
None - All other Notes and Cautions for Release 1.5.02 still apply (see below).

Notes & Cautions For Release 1.5.02

Do NOT upgrade the VISM backup boot firmware as this may render the VISM card inoperable.
CLI modification and changes:

- The following new CLI commands
 dsploops - display line and endpoint loopbacks. This command has no parameters.
 pingIndsp <line #>- display the health of DSPs for a specified line
 dsplnendptstatus <line#>- display the endpoint status for a specified line.
- The following CLI commands are not supported in Release 1.5.02
 cnfcasxgcp - configure CAS CGCP.
- The dspxcgcpstat and dspxcgcpstats commands have been renamed to dspxcgcpent and dspxcgcpents respectively.
- Both codec templates, 1 and 2, now include clear channel
- The addcon command has been changed to include a new “localVCI” parameter. Also the permissible ranges for the addcon PCR parameter have been changed.

The format of the addcon command is now:

```
addcon <localVCI><preference><pvcType><application><PCR><mastership>[<remoteConnId>]
```

Where:

localVCI	The local VCI to be used for the connection in the range 131 - 510. The value entered is also used as the LCN value.
preference	Specifies the use of a primary or secondary channel, 1 for primary, 2 for secondary.
pvcType	Specifies the AAL type of the connection. 1 for AAL5, 2 for AAL2
application	The application of the connection. 1 = control, 2 = bearer, 3 = signaling. If the connection is used for bearer and signaling, specify 2 for bearer

PCR Peak cell rate in Cells per Second. Ranges are: 1 - 75600 for VoIP bearer, 1 - 24400 for VoIP control, 1 - 50000 for AAL2 T1, 1- 60000 for AAL2 E1, 1 - 400 for AAL2 signaling (trunking).

mastership Specifies the connection as master or slave. 1 = master, 2 = slave(default).

temoteConn Remote connection identifier. This paramater has the format
Id "nodename.slot.port.vpi.vci". (This parameter is used only when mastership is set to 1).

- There is now a new way of configuring CAS. The command sequence is:

```
addln "1"      (Assuming line# 1)
cnflnsig "1 1" (Configuring line#1 for CAS signaling type 1)
```

The addcasvar command can now be executed in any order.

- For wink-start application, use filename as wink-did-dod.o
- For immediate-start appln, use filename as immed-did-dod.o
- For Ground-start appln, use filename as basic-pbx.o
- For wink-start, MF appln, use filename as wink-did-dod-mf.o

For example, to add wink-start MF variant.

```
addcasvar "winkmf wink-did-dod-mf.o"
```

this can be done at any time, irrespective of whether you had configured the other cas variants or not.

If a valid filename is not entered, the command will displays and error saying that filename has to be one of the above.

Problems Fixed in Release 1.5.05

VoIP Mode

Bug ID	Description
CSCdr58602	<p>Headline: DTMF is not supported for G729 in VoIP.</p> <p>For VoIP application, DTMF digit relay fails for G.729a and G.729ab codecs. The failure is determined to be due to the digit being leaked out over bearer while simultaneously being relayed as NSE packet.</p> <p>Work around: None. Do not use G.729a, G.729ab for VoIP application.</p>

AAI2 Mode .

Bug ID	Description
CSCdr63059	<p>Headline: DTMF Digits failure during the call</p> <p>Problem:When a call originates at VISM A and VISM B tests the speech path using digits transmitted from the terminating end (VISM B), a failure rate of .1% is observed for Digit ON time less than 80 - msecs (OFF time fixed at 60 msec). Failure rate increases as ON time is decreased.</p> <p>The failure rate is observed to be independent of DTMF digit relay being turned ON or turned OFF</p> <p>Work Around:Use a digit ON time greater than 120 msecs.</p>

Problems Fixed in Release 1.5.05

AAI2 Mode Anomalies.

Bug ID	Description
CSCdr22479	<p>Headline: PSQM high scores with VAC on.</p> <p>Description: The PSQM threshold was set to be at 2.5 , however, the resulting scores were in the 6.5 range. Post analysis showed that leading edge and trailing edge were missing.</p>
CSCdr26132	<p>Headline: CAC was enabled even when the connection bandwidth was in excess of the allowed bandwidth.</p> <p>Description: Added connetions (PVC) with a specific PCR, and added CIDS without CAC enabled. Reenabling CAC should fail to enable the CAC on the card because the current bandwidth was in excess of the allowed bandwidth.. Instead of failing to enable CAC, CAC is enabled.</p>
CSCdr26900	<p>Headline: Upspeeded CID is not down speeded when FAX call made</p> <p>Description: When the FAX call was made with both the end of the connections were in MASTER mode of CAC, one end of CID upspeeded but the other end did not. After the FAX call was disconnected, the upspeeded end of the CID did not return to the original Codec type. Subsequent calls were not able to be made.</p> <p>Workaround: Configure connection CAC to Slave before making any calls.</p>

VoIP Mode Anomalies

Bug ID	Description
CSCdr08976 VoIP	Headline:E1 Vism allows calls with depleted bandwidth. Description:After 60 call completions, VISM begins to borrow or deplete bandwidth from stable calls to be used in newly setup calls.This results in tone verification failure and calls getting torn down. Once PVC bandwidth has been depleted with active calls, VISM should reject any new incoming calls. Currently it does not.
CSCdr13493 VoIP	Headline: Vism E1: Ecan/Vad not disabled during modem call detection Description: Make a modem call from the PC to the NAS via the DMS/VSC/VISM. The VISM-E1 does not dynamically disable ECAN during the detection of the modem call. After entering the VISM shellconn/CLI to disable ECAN/VAD and ignore ECAN/VAD, and changing jitter=20ms, the modem call is established with V.90 mode.

Problems Fixed in Release 1.5.04**AAL2 Mode Anomalies.**

Bug ID	Description
CSCdp49340 VoAAL2	Headline: cnfcon does not change the PCR Description:When the value of the PCR parameter is changed through the cnfcon command, Vism does not change the value in the MIB
CSCdp72954 VoAAL2	Headline: LOS does not cause Vism to switch clock if vism is clocking the shelf Description: When the VISM line is used to clock the MGX shelf , if the VISM gets a loss of signal on the T1 line, or, if the line from which clock is derived is deleted , the PXM does not switch to the secondary clock source as expected. Loss of clock is recognized at the PXM only when the VISM port is down (when a card is reset or if a port is deleted)..
CSCdr16013 VoAAL2	Headline: Vism & 3810 Tx ones(seizures) on last 6 ds0s to pbx. Description: Vism & 3810 Tx ones(seizures) on last 6 ds0s to pbx. On testbed (pbx loop - ie no 4ESS connection), both 3810 & Vism are transmitting ones on ds0s 19 to 24.

VoIP Mode Anomalies

Bug ID	Description
CSCdr17034 VoIP	Headline: Unable to detect co2 in transponder mode. Description:The NTFY message is not forwarded to the CA and cot fails.

Problems Fixed in Release 1.5.03

Bug ID	Description
CSCdr16005	Headline:Manual call upspeeds by itself after static pops
VoAAL2	Description:While testing CCS INC to Frame with 20 Hammer calls up, one modem call up and one manual call, the manual call would have a static pop and then upspeed and downspeed. Testing with CNN on one end of the call this was happening about every second. With two people talking, it happened much less often but still happened.
CSCdr16020	Headline: Vism sending packets to Cisco 3810 when no voice call is active.
VoAAL2	Description:
CSCdr12039	Headline: Vism bulk stress test call failure
VoAAL2	Description:duing test using using the VCO4k some degradation in tone shaping was detected. the VCO4k flag these calls as failed. No call drops resulted from this condition.

Problems Fixed in Release 1.5.02

Bug ID	Description
CSCdp69061	Headline: vism cards reset during 15 cps test
	Description:During a 15 cps test, all vism cards reset unexpectedly stopping all traffic.Cause is being investigated.
	Workaround: None

Bug ID	Description
CSCdp68582	<p data-bbox="602 289 1136 317">Headline: Loss of voice quality on PXM to PXM calls</p> <p data-bbox="602 369 1489 426">Description: Some voice dropout and clipping experienced during testing on PXM to PXM calls. Cause is being investigated.</p> <p data-bbox="602 478 794 506">Workaround: None.</p>
CSCdp66621	<p data-bbox="602 573 1300 600">Headline: Slower data rates when modem calls pass through vism cards</p> <p data-bbox="602 653 1489 709">Description: When modem calls were passed through VISM, the achieved data rates were lower than expected.</p> <p data-bbox="602 762 1195 789">Workaround: Modem support is limited to V.34 in this release</p>

Compatibility Notes

VISM Software Interoperability with MGX 8850 Platform Software

Table 1 *Image Configuration Matrix*

Product	Boot Image	Firmware image
PXM1	pxm_bkup_1.1.24.fw	pxm_1.1.24.fw
PXM1-2-T3E3	pxm_bkup_1.1.24.fw	pxm_1.1.24.fw
PXM1-4-155	pxm_bkup_1.1.24.fw	pxm_1.1.24.fw
PXM1-1-622	pxm_bkup_1.1.24.fw	pxm_1.1.24.fw
AX-CESM-8E1	cesm_8t1e1_CE8_BT_1.0.02.fw	cesm_8t1e1_10.0.12.fw
AX-CESM-8T1	cesm_8t1e1_CE8_BT_1.0.02.fw	cesm_8t1e1_10.0.12.fw
MGX-AUSM-8E1/B	ausm_8t1e1_AU8_BT_1.0.02.fw	ausm_8t1e1_10.0.12.fw
MGX-AUSM-8T1/B	ausm_8t1e1_AU8_BT_1.0.02.fw	ausm_8t1e1_10.0.12.fw
MGX-CESM-T3	cesm_t3e3_CE8_BT_1.0.02.fw	cesm_t3e3_10.0.12.fw
MGX-CESM-E3	cesm_t3e3_CE8_BT_1.0.02.fw	cesm_t3e3_10.0.12.fw
AX-FRSM-8E1	frsm_8t1e1_FR8_BT_1.0.02.fw	frsm_8t1e1_10.0.12.fw
AX-FRSM-8E1-C	frsm_8t1e1_FR8_BT_1.0.02.fw	frsm_8t1e1_10.0.12.fw
AX-FRSM-8T1	frsm_8t1e1_FR8_BT_1.0.02.fw	frsm_8t1e1_10.0.12.fw
AX-FRSM-8T1-C	frsm_8t1e1_FR8_BT_1.0.02.fw	frsm_8t1e1_10.0.12.fw
MGX-FRSM-HS2	frsm_vhs_VHS_BT_1.0.02.fw	frsm_vhs_10.0.12.fw
MGX-FRSM-2CT3	frsm_vhs_VHS_BT_1.0.02.fw	frsm_vhs_10.0.12.fw
MGX-FRSM-2T3E3	frsm_vhs_VHS_BT_1.0.02.fw	frsm_vhs_10.0.12.fw
MGX-FRSM-HS1/B	frsm_hs1_HS1_BT_1.0.02.fw	frsm_hs1_10.0.12.fw
MGX-VISM-8T1	vism_8t1e1_VI8_BT_1.0.02.fw	vism_8t1e1_002.000.000.000.fw
MGX-VISM-8E1	vism_8t1e1_VI8_BT_1.0.02.fw	vism_8t1e1_002.000.000.000.fw
MGX-RPM-128M/B	rpm-boot-mz.121-1.T1	rpm-js-mz.121-3.T

Table 2 VISM 2.0.(0) Software Interoperability with other Cisco Products

Cisco 3810	MC3810_A2JSV5_MZ.121_1.XA2
Network Management Software:	CWM 10.3
CiscoView:	Bundled in CWM 10.3
Virtual Switch Controller Software	VSC 7.4(8)

Table 3 VISM 2.0.(0) Software Boot and Runtime Firmware Requirements:

Board Pair	Latest Boot Code Version	Minimum Boot Code Version	Firmware	Latest Firmware Version	Minimum Firmware Version
MGX-VISM-8T1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_002.000.000.000.fw	2.0.00	2.0.00
MGX-VISM-8E1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_002.000.000.000.fw	2.0.00	2.0.00

Table 4 VISM 1.5.05 Software Boot and Runtime Firmware Requirements:

Board Pair	Latest Boot Code Version	Minimum Boot Code Version	Firmware	Latest Firmware Version	Minimum Firmware Version
MGX-VISM-8T1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_1.5.0_5.fw	1.5.05	1.5.05
MGX-VISM-8E1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_1.5.0_5.fw	1.5.05	1.5.05

:

Table 5 VISM 1.5.04 Software Boot and Runtime Firmware Requirements:

Board Pair	Latest Boot Code Version	Minimum Boot Code Version	Firmware	Latest Firmware Version	Minimum Firmware Version
MGX-VISM-8T1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_1.5.0_4.fw	1.5.04	1.5.04
MGX-VISM-8E1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_1.5.0_4.fw	1.5.04	1.5.04

Table 6 VISM 1.5.03 Software Boot and Runtime Firmware Requirements:

Board Pair	Latest Boot Code Version	Minimum Boot Code Version	Firmware	Latest Firmware Version	Minimum Firmware Version
MGX-VISM-8T1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_1.5.0_2.fw	1.5.03	1.5.03
MGX-VISM-8E1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_1.5.0_2.fw	1.5.03	1.5.03

Table 7 VISM 1.5.02 Software Boot and Runtime Firmware Requirements:

Board Pair	Latest Boot Code Version	Minimum Boot Code Version	Firmware	Latest Firmware Version	Minimum Firmware Version
MGX-VISM-8T1	vism_8tle_VI8_BT_1.0.02.fw	1.0.02	vism_8tle1_1.5.0_2.fw	1.5.02	1.5.02
MGX-VISM-8E1	vism_8tle_VI8_BT_1.0.02.fw	1.5.02	vism_8tle1_1.5.0_2.fw	1.5.02	1.5.02

Table 8 VISM 1.5.01 Software Boot and Runtime Firmware Requirements:

Board Pair	Latest Boot Code Version	Minimum Boot Code Version	Firmware	Latest Firmware Version	Minimum Firmware Version
MGX-VISM-8T1	vism_8tle_VI8_BT_1.0.02.fw	1.0.01	vism_8tle1_VI8_1.5_01fw	1.5.01	1.5.01
MGX-VISM-8E1	vism_8tle_VI8_BT_1.0.02.fw	1.0.01	vism_8tle1_VI8_15_01.fw	1.5.01	1.5.01

Special Installation and Upgrade Requirements

- Step 1** Download the selected revision of service module firmware into the service module in the selected slot.

```
tftp <node_name or IP address>
bin
put <backup boot> POPEYE@SM_1_<slot#>.BOOT
quit
tftp <node_name or IP address>
```

- Step 2** Proceed to Step 2a. to upgrade all VISM cards or proceed to Step 2b. to upgrade an individual VISM card.

```
a. put <FW file> POPEYE@SM_1_0.FW
quit
b. 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 “VISM Upgrade to 2.0.(0)” section on page 14 to install the download.

VISM Upgrade to 2.0.(0)

VISM 2.0.(0) does not provide a procedure for the graceful upgrade (one in which the existing VISM configuration is preserved throughout the upgrade procedure) from releases 1.5.03, 1.5.04, 1.5.05.

If upgrading from a VISM release 1.5, please execute `clrallcnf` and start loading the software as if it's a new system configuration or `clrsmcnf` for individual card configuration (verify that there are no connections configured first).

VISM Upgrade from 1.5.01 and 1.5.02 to later releases

VISM Releases 1.5.01 and 1.5.02 do not provide for graceful upgrades, upgrading from these releases requires the old configuration to be cleared.

- The **resetsys** command will not clear the configuration.
- The **clrmscnf** command is not supported on VISM cards that have ports and connections.

Please follow the procedure below to successfully load the new VISM configuration.

Step 1 With old PXM and VISM images still loaded, delete all:

- CIDs
- CCS (in case of a CCS config)
- connections
- endpoints
- lines
- resource partitions
- ports

on the VISM cards.

Step 2 Remove VISM cards from the shelf.



Note THIS STEP IS VERY IMPORTANT.

Step 3 Now do clrmscnf on all VISM cards.

Step 4 Upgrade boot code on PXM using normal procedure

Step 5 TFTP the new PXM firmware image and new VISM firmware image. See “Standard Service Module Download Procedure” below for this step.

Step 6 resetsys --this will cause the shelf to reset.

Step 7 Insert VISM cards back into the shelf. This will rebuild the proper databases with the new images.

Standard Service Module Download Procedure

The following step needs to be followed for service module upgrade. Service module firmware images cannot be downloaded as specific versions in MGX 8850 Release 1.1.22 because only one image can be present on the disk at one instance. Hence the user cannot revert back during the installation process.

Download the service module firmware to the shelf:

```
unix-prompt> tftp shelf.ip.address
tftp> bin
tftp>put vism_8t1e1_1.5.03.fw POPEYE@SM_1_0.FW
Sent 1982672 bytes in 18.3 seconds
```

Make sure that the transfer is successful, by looking at the message displayed on the PXM console after the transfer:

```
Program length = 1982672
Calculated checksum = 0xd9779bc6 stored checksum = 0xd9779bc6
Fw checksum passed
```

Repeat for each service module type and for each slot independent firmware.



Note

There is no abort command for service module upgrade.

Known Anomalies for VISM

VISM 2.0.(0) Anomalies

The following is the list of known anomalies in the VISM service module, Release 2.0(0)delivery. Included with each is a brief discussion of the problem.

VoIPand VoAAL2 Mode Anomalies

Bug ID	Description
CSCdr68628	<p>Codec Preference Card Type Mismatched for G.711 Selection</p> <p>For VISM T1 cards, the Codec will default to G.711u law and cannot be changed to G.711a law. For VISM E1 cards, the condition is the same except that the default is G.711a law.</p> <p>Workaround: None</p>

VISM 1.5.05 Anomalies

The following is the list of known anomalies in the VISM service module, Release 1.5.05 delivery. Included with each is a brief discussion of the problem.

VoIP Mode Anomalies

Bug ID	Description
CSCdr58602	<p>Headline: DTMF is not supported for G729 in VoIP.</p> <p>For VoIP application, DTMF digit relay fails for G.729a and G.729ab codecs. The failure is determined to be due to the digit being leaked out over bearer while simultaneously being relayed as NSE packet.</p> <p>Work around: None. Do not use G.729a, G.729ab for VoIP application.</p>

AAL2 Mode Anomalies.

Bug ID	Description
CSCdr63059	<p>Headline: DTMF Digits failure during the call</p> <p>Problem:When a call originates at VISM A and VISM B tests the speech path using digits transmitted from the terminating end (VISM B), a failure rate of .1% is observed for Digit ON time less than 80 - msec (OFF time fixed at 60 msec). Failure rate increases as ON time is decreased.</p> <p>The failure rate is observed to be independent of DTMF digit relay being turned ON or turned OFF</p> <p>Work Around:Use a digit ON time greater than 120 msec.</p>

VISM 1.5.04 Anomalies

The following is the list of known anomalies in the VISM service module, Release 1.5.04 delivery. Included with each is a brief discussion of the problem.

AAL2 Mode Anomalies.

Bug ID	Description
CSCdr22479	<p>Headline: PSQM high scores with VAC on.</p> <p>Description: The PSQM threshold was set to be at 2.5 , however, the resulting scores were in the 6.5 range. Post analysis showed that leading edge and trailing edge were missing.</p>
CSCdr26132	<p>Headline: CAC was enabled even when the connection bandwidth was in excess of the allowed bandwidth.</p> <p>Description: Added connections (PVC) with a specific PCR, and added CIDS without CAC enabled. Reenabling CAC should fail to enable the CAC on the card because the current bandwidth was in excess of the allowed bandwidth.. Instead of failing to enable CAC, CAC is enabled.</p>
CSCdr26900	<p>Headline: Upspeeded CID is not down speeded when FAX call made</p> <p>Description: When the FAX call was made with both the end of the connections were in MASTER mode of CAC, one end of CID upspeeded but the other end did not. After the FAX call was disconnected, the upspeeded end of the CID did not return to the original Codec type. Subsequent calls were not able to be made.</p> <p>Workaround: Configure connection CAC to Slave before making any calls.</p>

VoIP Mode Anomalies

Bug ID	Description
CSCdr08976 VoIP	<p>Headline:E1 Vism allows calls with depleted bandwidth.</p> <p>Description:After 60 call completions, VISM begins to borrow or deplete bandwidth from stable calls to be used in newly setup calls.This results in tone verification failure and calls getting torn down. Once PVC bandwidth has been depleted with active calls, VISM should reject any new incoming calls. Currently it does not.</p>
CSCdr13493 VoIP	<p>Headline: Vism E1: Ecan/Vad not disabled during modem call detection</p> <p>Description: Make a modem call from the PC to the NAS via the DMS/VSC/VISM. The VISM-E1 does not dynamically disable ECAN during the detection of the modem call. After entering the VISM shellconn/CLI to disable ECAN/VAD and ignore ECAN/VAD, and changing jitter=20ms, the modem call is established with V.90 mode.</p>

VISM 1.5.03 Anomalies

The following is the list of known anomalies in the VISM service module, Release 1.5.03 delivery. Included with each is a brief discussion of the problem.

AAL2 Mode Anomalies.

Bug ID	Description
CSCdp49340 VoAAL2	Headline: cnfcon does not change the PCR Description:When the value of the PCR parameter is changed through the cnfcon command, Vism does not change the value in the MIB
CSCdp72954 VoAAL2	Headline: LOS does not cause Vism to switch clock if vism clocking the shelf Description: When the VISM line is used to clock the MGX shelf , if the VISM gets a loss of signal on the T1 line (OR) if the line from which clock is derived is deleted , the PXM does not switch to the secondary clock source as expected. Loss of clock is recognized at the PXM only when the VISM port is down (when a card is reset or if a port is deleted)..
CSCdr16013 VoAAL2	Headline: Vism & 3810 Tx ones(seizures) on last 6 ds0s to pbx. Description: Vism & 3810 Tx ones(seizures) on last 6 ds0s to pbx. On testbed (pbx loop - ie no 4ESS connection), both 3810 & Vism are transmitting ones on ds0s 19 to 24.

VoIP Mode Anomalies

Bug ID	Description
CSCdr08976 VoIP	Headline:E1 Vism allows calls with depleted bandwidth. Description:After 60 call completions, VISM begins to borrow or deplete bandwidth from stable calls to be used in newly setup calls.This results in tone verification failure and calls getting torn down. Once PVC bandwidth has been depleted with active calls, VISM should reject any new incoming calls. Currently it does not.
CSCdr13493 VoIP	Headline: Vism E1: Ecan/Vad not disabled during modem call detection Description: Make a modem call from the PC to the NAS via the DMS/VSC/VISM. The VISM-E1 does not dynamically disable ECAN during the detection of the modem call. After entering the VISM shellconn/CLI to disable ECAN/VAD and ignore ECAN/VAD, and changing jitter=20ms, the modem call is established with V.90 mode.
CSCdr17034 VoIP	Headline: Unable to detect co2 in transponder mode. Description:The NTFY message is not forwarded to the CA and cot fails.

VISM 1.5.02 Anomalies

The following is the list of known anomalies in the VISM service module, Release 1.5.02 delivery. Included with each is a brief discussion of the problem.

AAL2 Mode Anomalies.

Bug ID	Description
CSCdp49340 VoAAL2	Headline: cnfcon does not change the PCR Description:When the value of the PCR parameter is changed through the cnfcon command, Vism does not change the value in the MIB
CSCdp72954 VoAAL2	Headline: LOS does not cause Vism to switch clock if vism clocking the shelf Description: When the VISM line is used to clock the MGX shelf , if the VISM gets a loss of signal on the T1 line (OR) if the line from which clock is derived is deleted , the PXM does not switch to the secondary clock source as expected. Loss of clock is recognized at the PXM only when the VISM port is down (when a card is reset or if a port is deleted)..
CSCdr12039 VoAAL2	Headline: Vism bulk stress test call failure Description:duing test using using the VCO4k some degradation in tone shaping was detected. the VCO4k flag these calls as failed. No call drops resulted from this condition.
CSCdr16013 VoAAL2	Headline: Vism & 3810 Tx ones(seizures) on last 6 ds0s to pbx. Description: Vism & 3810 Tx ones(seizures) on last 6 ds0s to pbx. On testbed (pbx loop - ie no 4ESS connection), both 3810 & Vism are transmitting ones on ds0s 19 to 24.
CSCdr16005 VoAAL2	Headline:Manual call upspeeds by itself after static pops Description:While testing CCS INC to Frame with 20 Hammer calls up, one modem call up and one manual call, the manual call would have a static pop and then upspeed and downspeed. Testing with CNN on one end of the call this was happening about every second. With two people talking, it happened much less offen but still happened.
CSCdr16020 VoAAL2	Headline: Vism sending packets to Cisco 3810 when no voice call is active. Description:

VoIP Mode Anomalies

Bug ID	Description
CSCdr08976 VoIP	Headline:E1 Vism allows calls with depleted bandwidth. Description:After 60 call completions, VISM begins to borrow or deplete bandwidth from stable calls to be used in newly setup calls.This results in tone verification failure and calls getting torn down. Once PVC bandwidth has been depleted with active calls, VISM should reject any new incoming calls. Currently it does not.

CSCdr13493 VoIP	<p>Headline: Vism E1: Ecan/Vad not disabled during modem call detection</p> <p>Description: Make a modem call from the PC to the NAS via the DMS/VSC/VISM. The VISM-E1 does not dynamically disable ECAN during the detection of the modem call. After entering the VISM shellconn/CLI to disable ECAN/VAD and ignore ECAN/VAD, and changing jitter=20ms, the modem call is established with V.90 mode.</p>
CSCdr17034 VoIP	<p>Headline: Unable to detect co2 in transponder mode.</p> <p>Description: The NTFY message is not forwarded to the CA and cot fails.</p>

VISM 1.5.01 Anomalies

The following is the list of known anomalies in the VISM service module, Release 1.5.01 delivery. Included with each is a brief discussion of the problem. A more in depth discussion is available in the release note enclosure of the problem record in Bug Navigator.

Bug ID	Description
CSCdp69061	<p>Headline: vism cards reset during 15 cps test</p> <p>Description: During a 15 cps test, all vism cards reset unexpectedly stopping all traffic. Cause is being investigated.</p> <p>Workaround: None</p>
CSCdp68582	<p>Headline: Loss of voice quality on PXM to PXM calls.</p> <p>Description: Some voice dropout and clipping experienced during testing on PXM to PXM calls. Cause is being investigated.</p> <p>Workaround: None.</p>
CSCdp66621	<p>Headline: Slower data rates when modem calls pass through vism cards.</p> <p>Description: When modem calls were passed through VISM, the achieved data rates were lower than expected.</p> <p>Workaround: Modem support is limited to V.34 in this release.</p>

VISM 1.0 Anomalies

The following is the list of known anomalies in the MGX 8850 VISM service module, Release 1.00 delivery. Included with each is a brief discussion of the problem. A more in depth discussion is available in the release note enclosure of the problem record in Bug Navigator.

Bug ID	Description
CSCdp20174	<p>Symptom:</p> <p>VISM does not recognize LOS</p> <p>Description:</p> <p>If T1 cables are disconnected from the VISM card, or the connected channel bank is powered off, the VISM card does not detect LOS. The card still acts like the line is connected. Reported by ATT Piscataway, MR:000233, Jan Sussman</p>

Bug ID	Description
CSCdp21467	<p>Symptom:</p> <p>VISM ignores echo setting</p> <p>Description:</p> <p>When sending SGCP messages that tell the VISM to turn on echo cancellation, the actual endpoints setup do not have ecan turned on.</p> <p>WorkAround:</p> <p>The work around for this issue in VISM 1.0 is to use the shellcon command <code>ccIgnoreLcoEcan</code>. Please note that this change via the use of this command is not persistent. This command needs to be re-executed everytime VISM is reset/re-booted.</p>
CSCdp32764	<p>Symptom:</p> <p>Undeleted Connections existed on VISM after overnight calls</p> <p>Description:</p> <p>We have set up the VISM to originate and terminate on same T1 line, We ran the overnight calls and we observed that each endpoint had connection associated with it. VSC was sending DLCX message but VISM was responding with 510 NACK message and reason code was - CALL/Endpoint Unknown.</p>

Obtaining Service and Support

For service and support for a product purchased from a reseller, contact the reseller. Resellers offer a wide variety of Cisco service and support programs, which are described in the section “Service and Support” in the information packet that shipped with your chassis.



Note

If you purchased your product from a reseller, you can access Cisco Connection On-line (CCO) as a guest. CCO is Cisco Systems’ primary, real-time support channel. Your reseller offers programs that include direct access to CCO’s services.

For service and support for a product purchased directly from Cisco, use CCO.

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You can access CCO in the following ways:

- WWW: <http://www.cisco.com>
- WWW: <http://www-europe.cisco.com>
- WWW: <http://www-china.cisco.com>
- Telnet: cco.cisco.com
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.



Note

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This document is to be used in conjunction with the Cisco VISM 2.1.00 and 1.1.24 *Cisco WAN Switching MGX 8850* publications.

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