



Release Notes for Cisco Voice Interworking Service Module Release 3.3.35.201

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

The VISM/VISM-PR software release notes are supported by the *Cisco Voice Interworking Services (VISM) Configuration Guide and Command Reference Release 3.3*, which is available at Cisco.com.

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About Release 3.3.35.201

VISM/VISM-PR Release 3.3.35.201 is a maintenance release of Release 3.3.35 and contains no new feature for VISM-PR.

For a list of the caveats in this release, see the [“Caveats in Release 3.3.35.201” section on page 50](#)

About Release 3.3.35.203

VISM/VISM-PR Release 3.3.35.203 is a maintenance release of Release 3.3.35 and contains no new feature for VISM-PR.

For a list of the caveats in this release, see the [“Caveats in Release 3.3.35.203” section on page 51](#).

About Release 3.3.35

VISM/VISM-PR Release 3.3.35 is a maintenance release of Release 3.3.30 and contains new features for VISM-PR. For a description of these features, see the [“New Features Introduced in Release 3.3.35” section on page 7](#).

For a list of the caveats in this release, see the [“Caveats in Release 3.3.35” section on page 51](#).

About Release 3.3.30

VISM/VISM-PR Release 3.3.30 is a maintenance release of Release 3.3.25 and contains new features for VISM-PR. For a description of this feature, see the [“New Features Introduced in Release 3.3.30” section on page 7](#).

For a list of the caveats in this release, see the [“Caveats in Release 3.3.30” section on page 52](#).

About Release 3.3.25

VISM/VISM-PR Release 3.3.25 is a maintenance release of Release 3.3.20 and contains new features for VISM-PR. For a description of these features, see the [“New Features Introduced in Release 3.3.25” section on page 29](#).

For a list of the resolved caveats in this release, see the [“Resolved Caveats in Release 3.3.25” section on page 55](#).

About Release 3.3.20

VISM/VISM-PR Release 3.3.20 is a maintenance release of Release 3.3 and contains the following new features:

- 1560/980 Hz modem tones
- VQT statistics
- V.110

**Note**

For a description of these features, refer to the *Cisco Voice Interworking Services (VISM) Configuration Guide and Command Reference, Release 3.3*.

For a list of the open and resolved caveats in this release, see the [“Caveats in Release 3.3.20”](#) section on page 57.

About Release 3.3.10

The VISM/VISM-PR Release 3.3.10 is a maintenance release of Release 3.3 and contains no new features. For a list of the open and resolved caveats in this release, see [“Caveats in Release 3.3.10”](#) section on page 59.

About Release 3.3

VISM/VISM-PR Release 3.3 is a new release. [Table 1](#) summarizes the new features in VISM/VISM-PR Release 3.3.

**Note**

For a description of these features, refer to the *Cisco Voice Interworking Services (VISM) Configuration Guide and Command Reference, Release 3.3*.

Table 1 VISM/VISM-PR Release 3.3 Features

Feature	Summary
ATM Fax Relay	VISM-PR can transport fax over an ATM trunk using less bandwidth than fax pass through.
Filtering Traps	To reduce the load on CWM, you can filter the VISM-PR traps while the card is being configured.
VISM-PR Bulk Statistics Upload to CWM	You can upload history statistics data collected on a VISM-PR card to Cisco WAN Manager (CWM).
Display History Statistics	VISM and VISM-PR can collect history statistics.
Display All Static Configuration	On the VISM/VISM-PR card, you can use the dspall command to display static configurations, run-time statistics, and real-time dynamic data.
TDM Companding Law	VISM-PR supports non-standard law companding on the TDM interface.
G.729a Codec with 20 ms	VISM/VISM-PR cards contain a custom profile to support G.729a with 20 milliseconds (ms) packetization period.
Priority Bumping	On the VISM-PR card, you can set up high priority connections even if the available resources on the links are not enough to route the call.

Table 1 *VISM/VISM-PR Release 3.3 Features (continued)*

Feature	Summary
Bearer IP Address Ping	On the VISM/VISM-PR card, you can ping both the controller traffic IP address and the bearer traffic IP address.
Call Throttling	VISM-PR card supports call throttling to maintain the stability of the card when the call rate exceeds the maximum allowable limit.

For a list of the open and resolved caveats this release, see [“Caveats in Release 3.3” section on page 63](#).

**Note**

The content of VISM Release 3.3 supersedes previous releases.

Overview

These release notes contain the following sections:

- [“New Features Introduced in Release 3.3.35.201” section on page 6](#)
- [“New Features Introduced in Release 3.3.35.203” section on page 7](#)
- [“New Features Introduced in Release 3.3.35” section on page 7](#)
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- [“Caveats in Release 3.3” section on page 63](#)
- [“Related Documentation” section on page 67](#)
- [“Obtaining Documentation, Obtaining Support, and Security Guidelines” section on page 68](#)

New Features Introduced in Release 3.3.35.201

None.

New Features Introduced in Release 3.3.35.203

None.

New Features Introduced in Release 3.3.35

This section describes the following new features:

- [SNMP Support for Card Uptime](#)

SNMP Support for Card Uptime

SNMP support is provided to the command **dspcduptime**. The **dspcduptime** command displays how long the card has been in the up condition. To add support for this feature, the object **cefcModuleUptime** is used. The MIB object returns only the system clock ticks. The operator has to find out the system availability using the clock ticks.

The following example shows the output of the command:

```
VISM8.a > dspcduptime  
10 Days 16 Hours 58 Minutes 22 Seconds
```

New Features Introduced in Release 3.3.30

This section describes the following new features:

- [G.723 codec for VoATM](#)
- [Enhanced Support for Controlling the EcanControl for Clearchannel Codec](#)
- [Codec Upspeed for Fax Modems](#)
- [Interoperability with 1AESS Switch](#)

G.723 codec for VoATM

Release 3.3.30 supports the G.723 codec with upspeed option for VoATM circuits. G.723 codecs with a packetization period of 30 ms can reduce the bandwidth requirements for voice traffic and improve the bandwidth utilization of existing AAL2 trunks. To support fax/data modem traffic, an upspeed procedure can change from G.723 to G.711 after detection of fax/data modem tones. For more information about the upspeed option, see the [“Codec Upspeed for Fax Modems” section on page 24](#).

A new custom profile supports the G.723 codec for VoATM. [Table 2](#) shows the default values for custom profile 211.

Table 2 Custom Profile 211

UUI Range	Packet Length (octet)	Codec	SID	M	Packet time (ms)	Sec. No. Interval (ms)
8-15	40	PCMU	No SID	1	5	5
8-15	40	PCMA	No SID	1	5	5
0-7	40	Clear Channel	No SID	40	5	5
0-15	24	G723AH	SID723	1	30	5
0-15	24	G723H	No SID	1	30	5
0-15	20	G723AL	SID723	1	30	5
0-15	20	G723L	No SID	1	30	5

The following commands are modified to accommodate custom profile 211. In each case, the command has a new parameter for selecting custom profile 211. The MIB for Release 3.3.30 supports this profile as well.

- [cnfprofparams](#)
- [cnfprofelemvoice](#)
- [cnfprofelemvbd](#)
- [dspprofparams](#)
- [dspaal2profile](#)

cnfprofparams

To configure a profile preference for a channel, use the **cnfprofparams** command.

cnfprofparams <profileType> <profileNumber> <profilePreference>

Syntax Description

profileType	Profile type to be used for the channel. <ul style="list-style-type: none"> • 1 = International Telecommunication Union (ITU) I.366.2 • 3 = Custom
profileNumber	Number of the profile. <ul style="list-style-type: none"> • 1 = ITU profile • 2 = ITU profile • 3 = ITU profile • 7 = ITU profile • 8 = ITU profile • 12 = ITU profile • 100 = Custom profile • 101 = Custom profile • 110 = Custom profile • 200 = Custom profile • 200 = Custom profile • 201 = Custom profile • 210 = Custom profile • 211 = Custom profile (G.723 codec)
profilePreference	Profile preference. It can be one of the following values: <ul style="list-style-type: none"> • 0 = No preference; exclude the profile from xGCP profile negotiation. • 1–13, where 1 is the highest preference (default) and 13 is the lowest preference.

Command Modes

AAL2 trunking, switched AAL2 SVC and switched AAL2 PVC

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

In the following example, the ITU profile type, profile number 1 is configured with the midrange preference level of 4:

```
nodename.1.27.VISM8.a > cnfprofparams 1 1 4
nodename.1.27.VISM8.a >
```

Use the [dspprofparams](#) command to view the profile parameters.

Related Commands	Command	Description
	dspprofparams	Displays the profile elements and preferences for all profiles.

cnfprofelemvoice

To configure the profile voice element, use the **cnfprofelemvoice** command.

cnfprofelemvoice <profileType> <profileNumber> <voice_codec_type> <pktPeriod> <sid>

profileType	Profile type to be used for the CID. <ul style="list-style-type: none"> • 1 = International Telecommunication Union (ITU) I.366.2 • 3 = Custom
profileNumber	Number of the profile. <ul style="list-style-type: none"> • 1 = ITU profile • 2 = ITU profile • 3 = ITU profile • 7 = ITU profile • 8 = ITU profile • 12 = ITU profile • 100 = Custom profile • 101 = Custom profile • 110 = Custom profile • 200 = Custom profile • 201 = Custom profile • 210 = Custom profile • 211 = Custom profile (G.723 codec)
voice_codec_type	Type of coding/decoding to be performed on the data stream. <ul style="list-style-type: none"> • 1 = G.711u • 2 = G.711a • 3 = G.726-32k • 4 = G.729a • 5 = G.729ab • 6 = Clear channel (VAD must be off) • 7 = G.726-16k • 8 = G.726-24k • 9 = G.726-40k • 11 = G.723.1-H • 12 = G.723.1a-H • 13 = G.723.1-L • 14 = G.723.1a-L • 15 = Lossless (VAD must be off)

pktPeriod	Voice packetization period (defined in milliseconds). <ul style="list-style-type: none"> • 5 • 10 • 20 • 30 • 40
sid	Silence insertion descriptor (SID). <ul style="list-style-type: none"> • 1 = VAD off • 2 = VAD on • 3 = SID generic • 4 = SID 729 • 5 = SID 723

Command Modes

AAL2 trunking, switched AAL2 SVC and switched AAL2 PVC

Usage Guidelines

Use the [dspaal2profile](#) command to identify valid combinations of codec type, packetization period, and SID.

The G.723.1 codecs are supported for VISM-PR cards and are not supported for VISM cards.

Examples

In the following example, the ITU profile type on profile number 1 is configured with the G.711a codec type, a packetization period of 5 ms, and VAD enabled:

```
nodename.1.27.VISM8.a > cnfprofelemvoice 1 1 2 5 2
```

```
nodename.1.27.VISM8.a >
```

Use the [dspprotparams](#) to view your configurations.

Related Commands

Command	Description
cnfprofelemvbd	Configures the VBD profile element for a profile.
dspaal2profile	Displays information about a specified AAL2 profile type and profile number.
dspprotparams	Displays the profile elements and preferences for all profiles.

cnfprofelemvbd

To configure the voiceband data (VBD) profile element for a profile, use the **cnfprofelemvbd** command.

cnfprofelemvbd <profileType> <profileNumber> <codecType> <pktPeriod>

Syntax Description

<i>profileType</i>	Profile type to be used for the channel identifier (CID). <ul style="list-style-type: none"> • 1 = International Telecommunication Union (ITU) I.366.2 • 3 = Custom
<i>profileNumber</i>	Number of the profile. <ul style="list-style-type: none"> • 1 = ITU profile • 2 = ITU profile • 3 = ITU profile • 7 = ITU profile • 8 = ITU profile • 12 = ITU profile • 100 = Custom profile • 101 = Custom profile • 110 = Custom profile • 200 = Custom profile • 201 = Custom profile • 210 = Custom profile • 211 = Custom profile (G.723 codec)

codecType Type of coding/decoding to be performed on the data stream.

- 1 = G.711u
- 2 = G.711a
- 3 = G.726-32k
- 6 = Clear channel (VAD must be off)
- 7 = G.726-16k
- 8 = G.726-24k
- 9 = G.726-40k
- 11 = G.723.1-H
- 13 = G.723.1-L
- 14 = G.723.1a-L
- 15 = Lossless (VAD must be off)

pktPeriod Voiceband data packetization period (defined in milliseconds).

- 5
 - 10
 - 20
 - 30
 - 40
-

Command Modes

AAL2 trunking, switched AAL2 SVC and switched AAL2 PVC

Usage Guidelines

Use the [dspaal2profile](#) command to identify valid combinations of codec type, packetization period, and silence insertion descriptor.

The G.723.1 codecs are supported for VISM-PR cards and are not supported for VISM cards.

Examples

In the following example, the ITU profile type, profile number 1 is configured with G.711a codec type and a 5-ms packetization period:

```
nodename.1.27.VISM8.a > cnfprofelemvbd 1 1 2 5
```

```
nodename.1.27.VISM8.a >
```

Use the [dspprotparams](#) to view your configurations.

Related Commands

Command	Description
cnfprofelemvoice	Configures the voice profile element for a profile.
dspaal2profile	Displays AAL2 profile type and profile number data.
dspprotparams	Displays the profile elements and the preferences for all profiles.

dspprotparams

To display the profile elements and the preferences for all profiles, use the **dspprotparams** command.

dspprotparams

Syntax Description This command has no arguments or keywords.

Command Modes AAL2 trunking, switched AAL2 SVC and switched AAL2 PVC

Usage Guidelines When you execute this command, the display includes the default voice and voiceband data profile element that corresponds to each supported profile.

Examples In the following example, the profile elements and preferences for all profiles are displayed:

```
nodename.1.5.VISM8.a > dspprotparams
-----
Profile Type           : ITU
Profile Number        : 1
Profile Preference    : 4
Voice Profile Codec    : G.711u
Voice Profile Packetization-period(ms) : five
Voice Profile SID     : VAD on
VBD Profile Codec     : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control : enable
-----
Profile Type           : ITU
Profile Number        : 2
Profile Preference    : 3
Voice Profile Codec    : G.711u
Voice Profile Packetization-period(ms) : five
Voice Profile SID     : sidGeneric
VBD Profile Codec     : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control : enable
-----
Profile Type           : ITU
Profile Number        : 3
Profile Preference    : 1
Voice Profile Codec    : G.726-32K
Voice Profile Packetization-period(ms) : five
Voice Profile SID     : sidGeneric
VBD Profile Codec     : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control : enable
-----
Profile Type           : ITU
Profile Number        : 7
Profile Preference    : 2
Voice Profile Codec    : G.729ab
Voice Profile Packetization-period(ms) : ten
Voice Profile SID     : sid729
VBD Profile Codec     : G.711u
```

```

VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control                : enable
-----
Profile Type                            : ITU
Profile Number                          : 8
Profile Preference                       : 5
Voice Profile Codec                      : G.729ab
Voice Profile Packetization-period(ms) : ten
Voice Profile SID                        : sid729
VBD Profile Codec                        : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control                : enable
-----
Profile Type                            : ITU
Profile Number                          : 12
Profile Preference                       : 10
Voice Profile Codec                      : G.723.1a-H
Voice Profile Packetization-period(ms) : thirty
Voice Profile SID                        : sid723
VBD Profile Codec                        : G.723.1-H
VBD Profile Packetization-period (ms) : thirty
VBD Profile Ecan Control                : enable
-----
Profile Type                            : Custom
Profile Number                          : 100
Profile Preference                       : 6
Voice Profile Codec                      : G.726-32K
Voice Profile Packetization-period(ms) : ten
Voice Profile SID                        : sidGeneric
VBD Profile Codec                        : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control                : enable
-----
Profile Type                            : Custom
Profile Number                          : 101
Profile Preference                       : 7
Voice Profile Codec                      : G.729ab
Voice Profile Packetization-period(ms) : ten
Voice Profile SID                        : sid729
VBD Profile Codec                        : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control                : enable
-----
Profile Type                            : Custom
Profile Number                          : 110
Profile Preference                       : 8
Voice Profile Codec                      : G.729ab
Voice Profile Packetization-period(ms) : thirty
Voice Profile SID                        : sid729
VBD Profile Codec                        : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control                : enable
-----
Profile Type                            : Custom
Profile Number                          : 200
Profile Preference                       : 9
Voice Profile Codec                      : clr chan
Voice Profile Packetization-period(ms) : five
Voice Profile SID                        : VAD off
VBD Profile Codec                        : clr chan
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control                : enable
-----

```



```

Profile Type                : Custom
Profile Number              : 201
Profile Preference          : 11
Voice Profile Codec         : Lossless
Voice Profile Packetization-period(ms) : five
Voice Profile SID           : VAD off
VBD Profile Codec           : Lossless
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control    : enable
- - - - -
Profile Type                : Custom
Profile Number              : 210
Profile Preference          : 12
Voice Profile Codec         : G.729a
Voice Profile Packetization-period(ms) : twenty
Voice Profile SID           : VAD off
VBD Profile Codec           : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control    : enable
- - - - -
Profile Type                : Custom
Profile Number              : 211
Profile Preference          : 13
Voice Profile Codec         : G.723.1a-H
Voice Profile Packetization-period(ms) : thirty
Voice Profile SID           : sid723
VBD Profile Codec           : G.711u
VBD Profile Packetization-period (ms) : five
VBD Profile Ecan Control    : enable

```

Related Commands

Command	Description
cnfprofelemvbd	Configures the VBD profile element for a profile.
cnfprofelemvoice	Configures the voice profile element for a profile.
cnfprofparams	Configures a profile preference.

dspaal2profile

To display data about a specified AAL2 profile type and profile number, use the **dspaal2profile** command.

dspaal2profile <profileType> <profileNumber>

Syntax Description

profileType	Profile type to be used for the CID. <ul style="list-style-type: none"> • 1 = International Telecommunication Union (ITU) I.366.2 • 3 = Custom
profileNumber	Number of the profile. <ul style="list-style-type: none"> • 1 = ITU profile • 2 = ITU profile • 3 = ITU profile • 7 = ITU profile • 8 = ITU profile • 12 = ITU profile • 100 = Custom profile • 101 = Custom profile • 110 = Custom profile • 200 = Custom profile • 201 = Custom profile • 210 = Custom profile • 211 = Custom profile (G.723 codec)

Command Modes

AAL2 trunking, switched AAL2 SVC and switched AAL2 PVC

Usage Guidelines

The AAL2 profiles correspond to the profile types ITU and ATMF as defined in the ITU-T I.366.2 and ATM forum AF-VTOA-0113 standards.

Examples

In the following example, the data for AAL2 profile type 3 and profile number 110 is displayed:

```
nodename.1.5.VISM8.a > dspaal2profile 3 211
```

Codepoint	Range	Packet Length (octets)	Codec	SID	M	Packet Time (ms)	Seq. No. Interval (ms)
	8-15	40	PCMU	No SID	1	5	5
	8-15	40	PCMA	No SID	1	5	5
	0-7	40	CCD	No SID	40	5	5
	0-15	24	G723AH	SID723	1	30	5
	0-15	24	G723H	No SID	1	30	5

```

0-15      20      G723AL      SID723  1      30      5
0-15      20      G723L       No SID  1      30      5

```

```
nodename.1.5.VISM8.a >
```

Related Commands There are no related commands.

Enhanced Support for Controlling the EcanControl for Clearchannel Codec

In Releases 3.3.10 and earlier, when a channel is configured to use clearchannel as the voiceband data (VBD) codec, the value of Ecan cancellation is not changed. Therefore, if the initial call was set up with echo cancellation on, it remains remain on even after upspeed to clearchannel.

Cisco recommends having Ecan cancellation off with clearchannel because the CCD vbd codec should be used for carrying transparent bit streams. With Ecan cancellation off, transparent bit streams are passed transparently through VISM without modification by echo cancellers.

In Release 3.3.20, as a fix for DDTS CSCef12950, when a channel is configured to use clearchannel as VBD codec, echo cancellation is set to off for that channel.

However, some fax adapters (Gammalink and Brooktrout) require Ecan cancellation to be on to eliminate echo on the tail circuit. To accommodate such fax adapters, Release 3.3.30 adds a parameter to the VBD codec commands to enhance control of the Ecan cancellation.

By default the EcanControl parameter is set to true for Clearchannel (Ecan Cancellation is turned off). For fax adapters that require echo cancellation, set EcanControl to false (Ecan cancellation remains unchanged).

Release 3.3.30 modifies the following commands to enhance echo cancellation control for clearchannel as the VBD codec.

- [cnfvbdcodec](#)—Configures Ecan Validation in VOIP mode
A new argument enables or disables Ecan validation for a clearchannel voiceband data (VBD) codec.
- [dspvbdcodec](#)—Displays Ecan Validation in VOIP mode
A new line displays the Ecan control state.
- [cnfprofelemvbd](#)—Configures Ecan Validation in AAL2 mode
A new argument enables or disables Ecan validation for a VBD profile.
- [dspprotparams](#)—Displays Ecan Validation in AAL2 mode
A new line displays the Ecan control state.

cnfvbdcdec

To configure voiceband data (VBD) upspeed codec on the VISM card, use the **cnfvbdcdec** command.

```
cnfvbdcdec <upspeedCodec> | <payload> <ecan_control> |
```

Syntax Description

upspeedCodec	Upspeed codec. Values are <ul style="list-style-type: none"> • 1 = G.711u (default for T1) • 2 = G.711a (default for E1) • 3 = G.726-32K • 4 = Clear channel • 5 = G.723.1-H (valid for template number 4 only) • 6 = G.723.1-L (valid for template number 4 only) • 7 = G.726-16K • 8 = G.726-24k • 9 = G.726-40K
payload	(Optional) Payload type. This entry provides a mechanism for the codec to upspeed. Range is 0–256. Default is 256.
ecan_control	(Optional) Enables or disables Ecan validation. Values are <ul style="list-style-type: none"> • 1 = Enable (default) • 2 = Disable <p>Note For clear channel VBD codec only</p>

Command Modes

VoIP switching/VoIP trunking

Usage Guidelines

VISM uses the configured codec even if, for example, the configured codec is G.726-32k and VISM is preconfigured with G.711.

If you configure clear channel, VISM does support a mixed system clock—VISM cannot be originated at a T1 line and terminated at an E1 line, or originated at an E1 line and terminated at a T1 line.

When VISM is configured with clearchannel VBD codec, the *ecan_control* parameter enables or disables Ecan validation. If *ecan_control* is enabled (default), then while upspeeding to clearchannel VBD codec, Ecan is disabled. If *ecan_control* is disabled, then while upspeeding to clearchannel VBD codec, Ecan is not disabled and the behavior remains as it was in release 3.2.11.

In AAL2 modes the VISM obtains the upspeed codec from the AAL2 profile table. AAL1 modes do not support compression and therefore do not require upspeed.

The G.723.1 codecs are supported for VISM-PR cards only.



Note

We recommend that you not use *upspeedCodec* argument values 5 or 6 with this command.

Examples

In the following example, the VBD upspeed codec is configured as clearchannel, is assigned payload type 182, and Ecan validation is disabled:

```
nodename.1.27.VISM8.a > cnfvbdcodes 4 128 2
```

```
nodename.1.27.VISM8.a >
```

Related Commands

Command	Description
addrtpcon	Adds a static RTP VoIP trunking connection.
cnfdynamicpayload	Enables or disables the dynamic payload on the current VISM card.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
dspdynamicpayload	Displays the card level configuration of dynamic payload on the current VISM card.
dsprtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dspvbdcodes	Displays the upspeed codec used for voiceband data (VBD).

dspvbdcodec

To display the upspeed codec used for voiceband data (VBD) and the payload type, use the **dspvbdcodec** command.

dspvbdcodec

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples In the following example, the upspeed codec used for VBD, the default payload type, and Ecan Control appear:

```
nodename.1.28.VISM8.a > dspvbdcodec

VBD UpSpeed Codec:   ClearChannel
Payload Type       :   128
Ecan Control       :   disable

nodename.1.28.VISM8.a >
```

Related Commands

Command	Description
addrtpcon	Adds a static RTP VoIP trunking connection.
cnfdynamicpayload	Enables or disables the dynamic payload on the current VISM card.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfvbdcodec	Configures the VBD upspeed codec.
dspdynamicpayload	Displays the card level configuration of dynamic payload on the current VISM card.
dsprtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.

cnfprofelemvbd

To configure the voiceband data (VBD) profile element for a profile, use the **cnfprofelemvbd** command.

```
cnfprofelemvbd <profileType> <profileNumber> <codecType> <pktPeriod> <ecan_control>
```

Syntax Description	
<i>profileType</i>	Profile type to be used for the channel identifier (CID). <ul style="list-style-type: none"> • 1 = International Telecommunication Union (ITU) I.366.2 • 3 = Custom
<i>profileNumber</i>	Number of the profile. <ul style="list-style-type: none"> • 1 = ITU profile • 2 = ITU profile • 3 = ITU profile • 7 = ITU profile • 8 = ITU profile • 12 = ITU profile • 100 = Custom profile • 101 = Custom profile • 110 = Custom profile • 200 = Custom profile • 201 = Custom profile • 210 = Custom profile
<i>codecType</i>	Type of coding/decoding to be performed on the data stream. <ul style="list-style-type: none"> • 1 = G.711u • 2 = G.711a • 3 = G.726-32k • 6 = Clear channel (VAD must be off) • 7 = G.726-16k • 8 = G.726-24k • 9 = G.726-40k • 11 = G.723.1-H • 13 = G.723.1-L • 15 = Lossless (VAD must be off)
<i>pktPeriod</i>	Voiceband data packetization period (defined in milliseconds). <ul style="list-style-type: none"> • 5 • 10 • 30

<i>ecan_control</i>	Enables or disables Ecan validation. Values are <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
Note	For clear channel VBD codec only

Command Modes

AAL2 trunking, switched AAL2 SVC and switched AAL2 PVC

Usage Guidelines

Use the [dspaal2profile](#) command to identify valid combinations of codec type, packetization period, and silence insertion descriptor.

The G.723.1 codecs are supported for VISM-PR cards and are not supported for VISM cards.

When VISM is configured with clearchannel VBD codec, the *ecan_control* parameter enables or disables Ecan validation. If *ecan_control* is enabled (default), then while upspeeding to the clearchannel VBD codec, Ecan is disabled. If *ecan_control* is disabled, then while upspeeding to clearchannel VBD codec, Ecan is not disabled and the behavior remains as it was in release 3.2.11.

Examples

In the following example, the ITU profile type, custom profile number 100 is configured for a clearchannel codec type, a 5-ms packetization period, and disables Ecan validation:

```
nodename.1.27.VISM8.a > cnfprofelemvbd 3 100 6 5 2
```

```
nodename.1.27.VISM8.a >
```

Use the [dspprofparams](#) to view your configurations.

Related Commands

Command	Description
cnfprofelemvoice	Configures the voice profile element for a profile.
dspaal2profile	Displays AAL2 profile type and profile number data.
dspprofparams	Displays the profile elements and the preferences for all profiles.

Codec Upspeed for Fax Modems

Release 3.3.30 has a new command ([cnflnfaxmodem](#)) that enables or disables the upspeed procedure after detection of fax/modem tones. The [dspln](#) command displays the fax/modem control.

cnflnfxmodem

To enable or disable the upspeed procedure for a line, use the **cnflnfxmodem** command.

```
cnflnfxmodem <line_number> <faxModemType>
```

Syntax Description

line_number	Number of the line you to configure. Range is 1–8.
faxModemType	Controls the upspeed procedure. Values are: <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable Default: 1

Command Modes

VoIP switching/VoIP trunking, AAL2 trunking, switched AAL2 SVC, switched AAL2 PVC, and VoIP trunking/AAL2 trunking

Usage Guidelines

The **cnflnfxmodem** command enables or disables the upspeed procedure for all DS0s on the specified line. To view the current setting for a line, enter the **dspln** command.

Examples

In the following example, the upspeed procedure is disabled for line 1:

```
nodename.1.27.VISM8.a > cnflnfxmodem 1 2
```

Related Commands

Command	Description
dspln	Displays the characteristics of a VISM/VISM-PR line.



Note

For an example of the **dspln** command showing the status of LineFaxModem, see [dspln](#), page 28.

Interoperability with 1AESS Switch

Release 3.3.30 extends VISM signaling capabilities to include interoperability with 1AESS switches.

1AESS Signaling Overview

The Lucent 1AESS local exchange telephone switching system was widely deployed in the 1970s across what was then the Bell System. Most 1AESS switches are replaced by the next-generation digital switches, such as the Lucent 5ESS and Nortel DMS-100. While few 1AESS switches remain, those still in service are generally heavily built-out. About 2 to 5 percent of lines are on 1AESS switches.

Service providers that offer wholesale dial, Internet/intranet, and access virtual private networks (VPNs) require remote access and expect to provide widely available service at the lowest cost. To do so, they must have Signaling System 7 (SS7) trunks to each local exchange in a service area. And for Internet service providers (ISP) or competitive local exchange carriers (CLEC) that want 100 percent dial coverage, an interface to the remaining 1AESS switches is mandatory.

Even though 1AESS switches use out-of-band SS7 signaling, they cannot disable robbed-bit signaling (RBS). Therefore, gateways that connect to the 1AESS switch must send a steady A/B bit status on specific SS7-controlled lines to prevent the 1AESS tandem from bringing trunks down and placing them in the out-of-service state. Any fluctuation in the received A/B bits might force the entire line on a 1AESS switch into the out-of-service state. To address the sensitivity of 1AESS switch to A/B bits, the connected MGX switch must send a steady stream of A/B bits towards 1AESS switch that corresponds the activity (call setup, call tear down, COT operations) on the DS0.

Configuring VISM for 1AESS Signaling

For VISM to interoperate with the 1AESS switch, you configure the VISM module to send a specific, steady A/B/C/D bit pattern to the 1AESS switch when the call is active (seize pattern) and another steady A/B/C/D bit pattern when there is no call (idle pattern). The **cnflnsig** command has a new *signaling_type* option for enabling this feature, and the **dspln** command displays the corresponding *LineSignalingType*.



Note

The 1AESS feature is supported in VOIP switching mode only. Do not configure 1AESS signaling in any other mode (CSCek38088).

cnflnsig

To configure the signaling mode for a VISM/VISM-PR line, use the **cnflnsig** command.

```
cnflnsig <line_number> <signaling_type>
```

Syntax Description	<table border="1"> <tr> <td>line_number</td> <td>Number of the line you want to bring to the out-of-service state. Range is 1–8.</td> </tr> <tr> <td>signaling_type</td> <td> Signaling type of the line. Values are <ul style="list-style-type: none"> • 1 = Channel-associated signaling (CAS) • 2 = Common channel signaling (CCS) • 3 = No signaling • 4 = 1AESS (only for T1) </td> </tr> </table>	line_number	Number of the line you want to bring to the out-of-service state. Range is 1–8.	signaling_type	Signaling type of the line. Values are <ul style="list-style-type: none"> • 1 = Channel-associated signaling (CAS) • 2 = Common channel signaling (CCS) • 3 = No signaling • 4 = 1AESS (only for T1)
line_number	Number of the line you want to bring to the out-of-service state. Range is 1–8.				
signaling_type	Signaling type of the line. Values are <ul style="list-style-type: none"> • 1 = Channel-associated signaling (CAS) • 2 = Common channel signaling (CCS) • 3 = No signaling • 4 = 1AESS (only for T1) 				
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, and VoIP trunking/AAL2 trunking				
Usage Guidelines	<p>Confirm your entry when using this command to ensure that the signaling type is not changed while endpoints are configured for the line indicated by the <i>line_number</i> argument.</p> <p>This command is not allowed when CIDs or CCS channels are present.</p> <p>Configure the line type as either E1MF or E1MFCRC for E1 lines. Otherwise, this command is invalid.</p>				
Examples	<p>In the following example, line 1 is configured for 1AESS:</p> <pre>nodename.1.27.VISM8.a > cnflnsig 1 4 nodename.1.27.VISM8.a ></pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>dspln</td> <td>Displays the characteristics of a VISM/VISM-PR line.</td> </tr> </tbody> </table>	Command	Description	dspln	Displays the characteristics of a VISM/VISM-PR line.
Command	Description				
dspln	Displays the characteristics of a VISM/VISM-PR line.				

dspln

To display the configuration data of a VISM card line, use the **dspln** command.

dspln <line_number>

Syntax Description

line_number Number of the line for which you want to display the configuration data. Range is 1–8.

Command Modes

VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, and VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

In the following example, the configuration data for line number 1 is displayed:

```
nodename.1.27.VISM8.a >dspln 1

LineNum:                1
  LineConnectorType:     RJ-48
  LineEnable:            Modify
  LineType:               dsx1ESF
  LineCoding:            dsx1B8ZS
  LineLength:            0-131 ft
  LineXmtClockSource:    LocalTiming
  LineLoopbackCommand:   NoLoop
  LineSendCode:          NoCode
  LineUsedTimeslotsBitMap: 0x0
  LineLoopbackCodeDetection: codeDetectDisabled
  LineSignalingType:    1AESS
  LineCcsChannels:       0x0
  LineTrunkConditioning: disable
  LineBearerBusyCode:    127
  CircuitIdentifier:
  TxDigitOrder:         aniThenDnis
  TonePlanRegion:
  TonePlanVersion:      0
  RingingTO:            180
  RingBackTO:           180
```

Type <CR> to continue, Q<CR> to stop:

```
  BusyTO:                30
  ReorderTO:             30
  DialTO:                 16
  StutterDialTO:         16
  OffHookAlertTO:        5
  RemoteRingbackMethod:  proxy
  LineV110EnableFlag:    disable
  LineFaxModem:        enable

  LineNumOfValidEntries: 8
```

```
nodename.1.27.VISM8.a >
```

Related Commands	Command	Description
	dspln	Adds a T1 or E1 line to a VISM card.
	cnfln	Configures characteristics for a VISM card line.
	delln	Deletes a T1 or E1 line from a VISM card.

New Features Introduced in Release 3.3.25

This section contains the description of the following new features:

- [“SPVC Capacity Expansion” section on page 29](#)
- [“VISM-PR Alarm Events Reported in the MGX Log File” section on page 29](#)
- [“Configurable Loopback Cell Priority” section on page 33](#)
- [“History Statistics Enhancement” section on page 34](#)

SPVC Capacity Expansion

In this release, you can now configure a maximum of 248 PVCs on a VISM-PR-8E1 card and a maximum of 192 PVCs on a VISM-PR-8T1 card. The cards must be running in the AAL2 trunking mode.

Prior to Release 3.3.25, you could configure a maximum of 64 PVCs on a VISM-PR card.

With the increase in SPVC capacity now supported, you have the option of assigning each DS0 to a separate PVC.

VISM-PR Alarm Events Reported in the MGX Log File

Prior to Release 3.3.25, VISM-PR reported the Receive Line alarms to the PXM log file.

In Release 3.3.25, in addition to the Receive Line alarms, VISM-PR reports the following alarms in the PXM log file:

- Transmitted Line alarms
- Transmitted and Received PVC alarms
- Transmitted and Received Ds0 alarms

The reporting of these alarms is applicable to all of the VISM-PR modes.

The following new commands support this feature:

- [cnfnalmlog](#)
- [cnfpvcalmlog](#)
- [cnfallalmlog](#)
- [dspalmlog](#)

By default, the alarm log is disabled on all the lines, and the timer is set to 0.

cnfalmlog

To enable or disable the reporting of VISM-PR line alarms to the PXM log file, use the **cnfalmlog** command.

```
nodename.1,27.VISM8.a > cnfalmlog <line_number> <logEnab> |LogTimer|
```

Replace the above arguments with the values listed in [Table 3](#).

Table 3 Parameters for *cnfalmlog* Command

Parameter	Description
<i>line_number</i>	Line number for which you want to enable or disable the DS0 alarm reporting.
<i>logEnab</i>	Value you can use to enable or disable the logging of VISM-PR line alarms to the PXM alarm log. <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
LogTimer	(Optional) Number of minutes for which you want the line alarms to be reported to the PXM log file. The maximum time is 7200 minutes (5 days).

In the following example, DS0-based alarm logging is enabled on line 1 for 1440 minutes (1 day):

```
nodename.1,27.VISM8.a > cnfalmlog 1 1 1440
```

cnfpvcalmlog

To enable or disable the reporting of the alarms for all of the PVCs on a VISM-PR card to the PXM log file, use the **cnfpvcalmlog** command.

```
nodename.1.27.VISM8.a > cnfpvcalmlog <logEnab> <LogTimer>
```

Replace the above arguments with the values listed in [Table 4](#).

Table 4 Parameters for **cnfpvcalmlog** Command

Parameter	Description
<i>logEnab</i>	Value you can use to enable or disable the alarm reporting for all of the PVCs on a VISM-PR card. <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
<i> LogTimer </i>	(Optional) Number of minutes for which you want the PVC alarms to be reported to the PXM log file. The maximum time is 7200 minutes (5 days).

In the following example, alarm logging for all PVCs is enabled on line 1440 minutes (1 day):

```
nodename.1.27.VISM8.a > cnfpvcalmlog 1 1440
```

cnfallalmlog

To enable or disable the reporting of alarms on all of the lines and PVCs to the PXM log file, use the **cnfallalmlog** command. The default reporting time is 7200 minutes (5 days).

```
nodename.1.27.VISM8.a > cnfallalmlog <logEnab>
```

Replace the <logEnab> argument with one of the following values to enable or disable the alarm reporting for all of the lines and PVCs on the VISM-PR card:

- 1 = Enable
- 2 = Disable

In the following example, alarm logging for all of the lines and PVCs on a VISM-PR card is enabled.

```
nodename.1.27.VISM8.a > cnfallalmlog 1
```

```
nodename.1.27.VISM8.a >
```

This command is valid when all of the lines on the card are enabled.

dspalmlog

To display the current settings for reporting VISM-PR line and PVC alarms to the PXM log file, use the **dspalmlog** command.

```
nodename.1.27.VISM8.a > dspalmlog
```

In the following example, the line and PVC alarm reporting settings are displayed:

```
8850.1.1.VISM8.a > dspalmlog
```

```
Detailed PVC Alarms to Log: Enabled
```

```
-----
```

Alarm Time Configured(minutes)	Alarm Time Left(minutes)
=====	=====
7200	7200

```
Detailed Line Alarms to Log
```

```
-----
```

Line Number	Timer Configured(minutes)	Time Left(minutes)
=====	=====	=====
1	1440	1440
2	7200	7198
3	Disabled	
4	Disabled	
5	Disabled	
6	Disabled	
7	Disabled	
8	Disabled	

Configurable Loopback Cell Priority

The ATM OAM loopback cell is used to monitor the end to end connectivity of the PVC in an ATM network. The cell loss priority (CLP) bit in the ATM header is used to set the priority of the cell. A cell with CLP set to 0 has higher priority compared to a cell with CLP set to 1. During traffic congestion events, the lower priority cells are eligible first for discard.

The ATM OAM loopback cells in the VISM-PR card have the cell loss priority (CLP) bit set to 1 by default. These cells can be discarded during traffic congestion even though the class of service is configured to be constant bit rate (CBR). This discard can cause the SPVCs to go into alarm as a result of an OAM loopback timeout, which could result in the dropping of all calls on the SPVCs.

In Release 3.3.25, you can set the CLP bit of an OAM loopback cell to 0 on a VISM-PR card. This setting is propagated across the network to preserve the calls during traffic congestion.

CLP bit configuration is applicable to the OAM loopback cells in all configured PVCs of a VISM-PR card.

To configure the loopback cell priority, complete the following steps:

-
- Step 1** Ensure you are logged in to a VISM-PR card and are operating in the VoIP switching/trunking or AAL2 trunking mode.
 - Step 2** To set the CLP bit in the OAM cell, enter the **cnfoamloopbkclp** command.

```
nodename.1.27.VISM8.a > cnfoamloopbkclp <ClpSetFlag>
```


The following two commands are modified to include these new statistics:

- **dsphistorystats**
- **dsponcnt**

You can collect history statistics on PVCs 1–64. PVCs above the 64th PVC are not tracked in history statistics and cannot be displayed with the **dsphistorystats** command.

For more information about collecting history statistics and the commands, refer to the *Cisco Voice Interworking Services (VISM) Configuration Guide & Command Reference, Release 3.3* located at the following URL on Cisco.com:

http://www.cisco.com/en/US/products/hw/gatecont/ps3869/products_configuration_guide_book09186a0080301d30.html

To view the new OAM history statistics, use the **dsphistorystats** command.

```
nodename.1.5.VISM8.a > dsphistorystats <StatsType> <Interval> <InterfaceIndex>
|InterfaceIndex2|
```

Replace the above arguments with the values listed in [Table 5](#).

Table 5 Parameters for dsphistorystats Command

Parameter	Description
<i>StatsType</i>	Type of history statistics. Value is 1 for PVC.
<i>Interval</i>	Interval. Range is 0–96. A value of 0 displays the 24-hr total of all of the intervals. Values 1–96 are 15-minute time intervals for the previous 24 hrs.
<i>InterfaceIndex</i>	If <i>StatsType</i> is set to 1 (PVC) or 2 (CID), this value is in the range 131–510 for the logical channel number (LCN).
<i>InterfaceIndex2</i>	Not applicable for displaying the new OAM statistics.

In the following example the new OAM statistics are shown in bold.

```
pxm45-24.1.13.VISM8.a > dsphistorystats 1 80 132

PVC History Statistics: interval = 80, LCN = 132
-----

Valid Flag                               = VALID
Last Reset Uptime Ticks                   = 0
Total ATM Xmt Cells                       = 33157
Total ATM Rcv Cells                       = 31380
Avg Per Sec ATM Xmt Cells                 = 36
Avg Per Sec ATM Rcv Cells                 = 34
Peak Per Sec ATM Xmt Cells                = 49
Peak Per Sec ATM Rcv Cells                = 40
Total OAM Xmt End-to-End Lpbk Req Cells   = 874
Total OAM Rcv End-to-End Lpbk Rsp Cells   = 874
Total OAM Xmt Segment Lpbk Cells         = 0
Total OAM Rcv Segment Lpbk Cells         = 0
Total OAM End-to-End Lpbk Lost Cells     = 0
Total Discarded Rcv OAM Cells            = 0
Total OAM Lpbk Timeout Cnts           = 0
Total New OAM Lpbk Timeout Duration   = 0
Total Active OAM Lpbk Timeout Duration = 0
OAM Lpbk Timeout Threshold           = 5
```

```

Total AIS Suppress Cnts           = 0
Total Xmt AIS Cnts                 = 0
Total Rcv AIS Cnts                 = 0
Total Xmt FERF Cnts                = 0
Total Rcv FERF Cnts                = 0
Total Xmt AIS Cells                = 0
Total Rcv AIS Cells                = 0
Total Xmt FERF Cells               = 0
Total Rcv FERF Cells               = 0
Total AAL2 CPS Sent Pkts           = 196985
Total AAL2 CPS Rcvd Pkts           = 223126
Total AAL2 HEC Errors              = 0
Total AAL2 CRC Errors              = 0
Total AAL2 Invalid OSF Cells       = 0
Total AAL2 Invalid Parity Cells    = 0
Total AAL2 Invalid Cid Pkts        = 12997
Total AAL2 Invalid UII Pkts        = 0
Total AAL2 Invalid Length Pkts     = 0
Total AAL5 PDU Sent Pkts           = 0
Total AAL5 PDU Rcvd Pkts           = 0
Total AAL5 Invalid CPI PDUs        = 0
Total AAL5 Oversized SDU Rcvd PDUs = 0
Total AAL5 Invalid Length PDUs     = 0
Total AAL5 CRC32 Errored PDUs      = 0
Total AAL5 Reassembly Timer Expiry PDUs = 0

```

Last Completed Interval Number is 81

To view the real-time count and duration of OAM Loopback Timeouts, use the **dsponcnt** command.

```
nodename.1.5.VISM8.a > dsponcnt <LCN>
```

Replace <LCN> with the number of the logical channel for which OAM loopback timeout information is to be displayed. Range is 131–510.

The following example shows the OAM Loopback Timer count and duration in bold.

```
pxm45-24.1.13.VISM8.a > dsponcnt 132
```

```

ChanNum:                132
Chan State:              okay
Chan XMT ATM State:      Normal
Chan RCV ATM State:      Normal
Chan Status Bit Map:    0x0
OAM Lpb Lost Cells:     0
AAL2 HEC Errors:        0
AAL2 CRC Errors:        0
AAL2 Invalid OSF Cells: 0
AAL2 Invalid Parity Cells: 0
AAL2 CPS Packet Xmt:    3619340
AAL2 CPS Packet Rcv:    3745789
AAL2 Invalid CID CPS:   220398
AAL2 Invalid UII CPS:   0
AAL2 Invalid Len. CPS:  0
Chan 24Hr Peak Xmt Cell Rate (CPS): 192
Chan Current Xmt Cell Rate (CPS): 38
Chan 24Hr Peak Rcv Cell Rate (CPS): 160
Chan Current Rcv Cell Rate (CPS): 36
AAL5 PDU Packet Xmt:    0
AAL5 PDU Packet Rcv:    0
AAL5 Invalid CPI:       0
AAL5 oversized SDU PDU: 0
AAL5 Invalid Len. PDU:  0
AAL5 PDU CRC32 Errors:  0

```

```

AAL5 Reassembly Timer expired PDU: 0
AIS Successful Suppression Count: 0
AIS Alarm Transmitted Count: 0
AIS Alarm Received Count: 0
FERF Alarm Transmitted Count: 0
FERF Alarm Received Count: 1
OAM Loopback Timeout Count 0
OAM Loopback Timeout Duration(secs):0

```

VISM Management Information Base

VISM Release 3.3.35.203 uses Management Information Base (MIB) Version 85. VISM MIBs are compatible with both PXM1-based and PXM1E/PXM45-based chassis.

To access the MIBs, complete the following steps:

-
- Step 1** Load the MIBs available with MGX Release 1.3.11 located at the following URL:
<http://www.cisco.com/public/sw-center/index.shtml>
- Step 2** Copy the modified MIBs that are contained in the MIBS.zip file, which is available at the same location as the firmware files for this release.



Note The MIB version number was last updated in Release 3.3.30.

VISM Redundancy

Table 6 provides the support level for 1:N Service Module Redundancy (N = 1 through 11).

Table 6 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.

VISM/VISM-PR cards support bulk distribution using the SRM-3T3 and SRM-E (OC-3) cards. In a redundancy configuration VISM/VISM-PR cards in bulk distribution mode do not require any back cards.

VISM Call Rate

Software Release 3.3.35.204 for VISM/VISM-PR handles 10 CAS, SS7, or PRI calls per second per VISM/VISM-PR card.

Compatibility

VISM/VISM-PR software interoperability with Cisco MGX 8230, Cisco MGX 8250, Cisco MGX 8830, Cisco MGX 8850 (PXM1, PXM1E, PXM45), and Cisco MGX 8880 platform software is listed in [Table 7](#).

Table 7 *VISM/VISM-PR Software Interoperability*

Product	Firmware
PXM1	1.3.18
	1.3.16
	1.3.14
	1.3.12
	1.2.23
PXM1E	5.6.00
	5.5.10
	5.5.00
	5.4.30
	5.4.10
	5.3.10
	5.2.10
	5.0.20
PXM45	5.6.00
	5.5.10
	5.5.00
	5.4.30
	5.4.10
	5.3.10
	5.2.20
	5.2.10
	5.0.20
RPM-PR	12.4(6)T1
	12.3(7)T3

Table 7 VISM/VISM-PR Software Interoperability (continued)

Product	Firmware
RPM-XF	12.4(6)T8
	12.4(6)T6
	12.4(6)T1
	12.3(7)T3
AXSM	5.6.00
	5.5.10.200
	5.5.0.200
	5.4.10.200
	5.3.10
	5.2.10
	5.0.20
MPSM	5.3.10
	5.2.10
VXSM	5.6.00
	5.5.11
	5.5.10
	5.5.0.200
	5.3.10
	5.2.10
	5.0.70

Table 8 shows VISM and VISM-PR compatibility with the PXM controller cards.

Table 8 VISM/VISM-PR Compatibility with PXM Cards

	PXM1	PXM1E	PXM45 (A/B/C)
VISM	Yes	No	No
VISM-PR	Yes	Yes	Yes

Table 9 shows VISM and VISM-PR compatibility with the Cisco MGX chassis.

Table 9 VISM/VISM-PR Compatibility with Cisco MGX Chassis

	Cisco MGX 8230	Cisco MGX 8250	Cisco MGX 8830	Cisco MGX 8850 (PXM1)	Cisco MGX 8850 (PXM1E or PXM45)	Cisco MGX 8880 (PXM45)
VISM	Yes	Yes	No	Yes	No	No
VISM-PR	Yes	Yes	Yes	Yes	Yes	Yes

Table 10 describes the VISM/VISM-PR software interoperability with other Cisco products.

Table 10 *VISM/VISM-PR Release 3.3.35.204 Interoperability with Other Cisco Products*

Product	Latest Firmware
CWM	16.0 Patch 2
	15.3.0
	15.1.50 P2
	15.0 (P3)
BTS	6.0
	4.5
	4.4
PGW	9.5(2)
CISCO 2421	12.3(10a)
AS5400	12.3.9
AS5300	12.3.9 with vware 11.32

Table 11 describes the software images available for Release 3.3.35.204 for VISM/VISM-PR.

Table 11 *Software Images for VISM/VISM-PR Release 3.3.35.204*

Product Name	Software Version	Firmware Image Name	Description
MGX-VISM-SW3335	003.003.035.204.FW	vism_8t1e1_003.003.035.204.fw	This image does not support the CALEA ¹ feature.
MGX-VISM-LISW3335	003.053.035.204.FW	vism_8t1e1_003.053.035.204.fw	This image supports the CALEA ² feature.

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

Table 12 describes the software boot code requirements for VISM/VISM-PR Release 3.3.35.204.

Table 12 *VISM/VISM-PR Software 3.3.35.204 Boot Code Requirements*

Board Pair	Boot Code Image Name	Boot Code Version
MGX-VISM-8T1	vism_8t1e1_VI8_BT_3.2.00.fw	VI8_BT_3.2.00
MGX-VISM-8E1	vism_8t1e1_VI8_BT_3.2.00.fw	VI8_BT_3.2.00
MGX-VISM-PR-8T1	vism_8t1e1_VI8_BT_3.2.00.fw	VI8_BT_3.2.00
MGX-VISM-PR-8E1	vism_8t1e1_VI8_BT_3.2.00.fw	VI8_BT_3.2.00

Limitations and Restrictions

The following limitations and restrictions are valid for software Release 3.3.35.204 for VISM/VISM-PR:

- In VISM Release 3.3.20 and later, the packetization period for G726-32K codec in custom profile 210 is 5 msec. In VISM Release 3.3.10 and earlier, this value was 10 msec. Because of this change, VISM Release 3.3.20 and later cannot interoperate with VISM Release 3.3.10 and earlier if the two releases have CIDs configured for custom profile 210 in AAL2 mode.

The packetization period change also made it difficult to upgrade from VISM Release 3.3.10 and earlier to VISM Releases 3.3.20 through 3.3.30, when CIDs were configured for G726-32K codec in custom profile 210 in AAL2 mode. The workaround was to clear the card configuration, upgrade the software, and then reconfigure the card.

VISM Release 3.3.30 resolves the upgrade problem (CSCek34084). You can now upgrade from all VISM releases to Release 3.3.30 normally, even when CIDs are configured with custom profile 210 in AAL2 mode. However for VISM Release 3.3.10 and earlier, you must increase the bandwidth of PVCs for CIDs that use custom profile 210 prior to the upgrade. This is because the upgrade automatically decreases the packetization period to 5 msec for CIDs using custom profile 210, but does not automatically increase the PVC bandwidth for those CIDs.

- If you are upgrading the VISM-PR image to Release 3.2.1x or later and the PXM1E or PXM45 image from Release 4.x or earlier to Release 5.x, first upgrade the VISM-PR cards. Then, upgrade the PXM1E or PXM45 cards in the same node.

Do not configure the new VISM features until you have fully upgraded the network. After you upgrade your network to PXM1E or PXM45 Release 5.x or later and VISM-PR to Release 3.2.1x or later, apply the standard upgrade process.

- Cisco recommends that you use the **cnfcodecjtrdelay** command to configure the fixed *jitter-delay* argument to 20 ms when using VISM-PR 3.3.35.204.
- In a PNNI network, upspeeding SVC fax or modem calls requires an increase in bandwidth between the voice codec and the vbd codec. For fax calls to go through, you must disable policing.
- Switched AAL2 PVC mode is not recommended as this mode requires a meshed PVC network topology, which does not scale.
- The following commands are not supported:
 - **cnfmaxconfnum**
 - **dspconferences**
 - **dspmaxconfnum**
- GR-303 is not supported for the LAPD commands.
- In AAL2 SVC mode, all active calls on the VISM cards are dropped upon PXM hard and soft switchover.
- For VISM-PR cards that are running on a PXM45 chassis, you can add connections to a maximum of 11 VISM-PR cards.

To add more cards and connections, you must enable the expanded memory option on the PXM45 card by using the **cnfndparms** (option 4) command.

- When configuring VoIP for modem or fax upspeed (passthrough), set the EventNegoPolicy parameter of the **cnfvoiptransparams** command to the value all.

This configuration is required for all related upspeed codecs to function correctly. An upspeed codec is defined as the codec that is switched to G.711a/u law, Clear Channel, or G.726.

- For a list of open issues and mitigations in VISM Release 3.3.35.201, see [“Caveats in Release 3.3.35.201” section on page 50.](#)

Upgrade Procedures

This section describes the following upgrade procedures:

- [Prerequisites, page 42](#)
- [VISM/VISM-PR Upgrades with PXM1, page 43](#)
- [Upgrading VISM-PR with PXM1E and PXM45, page 46](#)
- [Downgrading VISM/VISM-PR, page 48](#)
- [Upgrading VISM to VISM-PR Hardware, page 49](#)

VISM/VISM-PR Release 3.3.35.204 provides a procedure for the graceful upgrade (one in which the existing VISM/VISM-PR configuration is preserved throughout the upgrade procedure) from one of the following releases:

- From VISM 3.2.11 to VISM 3.3.35.204
- From VISM 3.3 to VISM 3.3.35.204
- From VISM 3.3.20 to VISM 3.3.35.204
- From VISM 3.3.25 to VISM 3.3.35.204
- From VISM 3.3.30 to VISM 3.3.35.204

Prerequisites

To ensure that the VISM/VISM-PR configuration is preserved throughout the upgrade procedure, you must complete the prerequisites listed in this section.

Before starting the graceful upgrade procedure, complete the following prerequisites:

- Configure your MGX 8000 Series shelf with at least two VISM cards in a redundant configuration. For more information on adding redundancy, refer to the add redundancy, **addred**, command in the Cisco MGX 8250, Cisco MGX 8230, and Cisco MGX 8850 PXM1-based Command Reference documentation and the Cisco MGX 8830 and Cisco MGX 8850 PXM1E/ PXM45-based Command Reference documentation.
- Ensure that the VISM cards are running at least Release 2.1, and the VISM-PR cards are running at least Release 3.0.
- Download software Release 3.3.35.204 for VISM/VISM-PR to the MGX 8000 Series shelf.
- If you are using the CALEA feature, ensure that you have the version of VISM/VISM-PR software that supports CALEA.

VISM/VISM-PR Upgrades with PXM1

This section describes the procedures for upgrading VISM/VISM-PR software when the VISM/VISM-PR is used with a PXM1 card.

Downloading VISM/VISM-PR Boot Code and Firmware to PXM1

To download the VISM/VISM-PR boot code and firmware to the PXM1 card, use TFTP.

-
- Step 1** Log in to your TFTP server.
- Step 2** Download the bootcode and firmware images from the Cisco website.
- Step 3** Download the selected revision of service module boot code into the service module.
- tftp** <node_name or IP address>
 - bin**
 - put** <backup boot> POPEYE@SM_1_0.BT
 - quit**
- Step 4** Download the selected firmware file.
- tftp** <node_name or IP address>
 - bin**
 - To upgrade all VISM cards:


```
put <FW file> POPEYE@SM_1_0.FW
quit
```
 - To upgrade an individual VISM card:


```
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 5** Proceed to the [“Upgrading VISM/VISM-PR Firmware with PXM1 Card”](#) section on page 44 to install the download.
-

Upgrading Boot Code with PXM1 Cards

Complete the following steps to upgrade the new backup boot code when you are using PXM1 cards in a Cisco MGX 8230, Cisco MGX 8250, and Cisco MGX 8850 chassis:

-
- Step 1** Log in to the active PXM1 card (slot 7 or 8 for Cisco MGX 8250 and Cisco MGX 8850 chassis; slot 1 or 2 for Cisco MGX 8230 and Cisco MGX 8830 chassis).



Note VISM/VISM-PR must be in the active state to update the VISM/VISM-PR boot code.

Step 2 Execute the PXM1 **install** command.

```
nodename.1.27.VISM8.a > install [bt] [sm <slot>] <version>
```



Caution

Do not touch the VISM/VISM-PR card until the status comes back ('Sent xxx bytes in yyy seconds'). Failure to follow this recommendation corrupts the boot code, which cannot be recovered.

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

Step 3 Type the **version** command to verify the correct boot code.



Note [Step 3](#) is optional.

Upgrading VISM/VISM-PR Firmware with PXM1 Card

Software Release 3.3.35.204 is for VISM and VISM-PR cards. Ensure that the VISM and VISM-PR cards have the minimum boot code version of `vism_8t1e1_VI8_BT_3.2.00.fw`.

The following versions of VISM software Release 3.3.35.204 are available:

- 003.003.035.204.FW—without CALEA
- 003.053.035.204.FW—with CALEA

In this procedure the following conditions apply:

- If two VISM or VISM-PR cards are part of a redundancy group, initially the primary card is in the active state, and the secondary card is in the standby state.
- Old-rev refers to the firmware, Release 3.2 and prior.
- New-rev refers to the firmware after the upgrade, Release 3.3.35.204.

Perform the firmware upgrade on the VISM or VISM-PR cards. Do not remove the VISM cards and replace them with VISM-PR cards at this time.

Step 1 Log in to the active PXM1 card (slot 7 or 8 for Cisco MGX 8250 and Cisco MGX 8850 chassis; slot 1 or 2 for Cisco MGX 8230 and Cisco MGX 8830 chassis).

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

```
nodename.1.8.PXM.a > savesmconf <SM slot#>
```

This command saves the existing configuration in the C:CNF directory. This file can be used during the downgrade procedure.

Step 3 To obtain the correct version of VISM/VISM-PR firmware, enter the **dspfwrevs** command.

```
nodename.1.8.PXM.a > dspfwrevs
```

Card Type	Date	Time	Size	Version	File Name
VISM-8T1E1	04/26/2004	20:06:04	248688	VI8_BT_3.2.00	sm150.bt
PXM1	01/04/2004	08:19:52	2602836	1.2.11	pxm_1.2.11.fw
PXM1	01/04/2004	11:03:02	2620132	1.2.21	pxm_1.2.21.fw
VISM-8T1E1	09/10/2004	16:22:32	4135208	003.003.000.200	sm150_12.fw
VISM-8T1E1	09/10/2004	15:37:52	4077560	003.002.010.200	sm150.fw
VISM-8T1E1	06/16/2004	13:29:38	3863768	003.051.002.000	sm150_11.fw

PXM1	01/04/2004	11:01:56	1346844	1.2.21	pxm_bkup_1.2.21.fw
VISM-8T1E1	03/08/2004	08:20:16	4037880	003.002.000.000	sm150_3.fw
VISM-8T1E1	03/08/2004	08:19:44	248688	VI8_BT_3.2.00	sm150_3.bt
PXM1	01/04/2004	07:58:44	1345328	1.2.11	pxm_bkup_1.2.11.fw
VISM-8T1E1	01/07/2004	23:33:02	3863768	003.051.002.000	sm150_2.fw
VISM-8T1E1	03/08/2004	08:21:12	248688	VI8_BT_3.2.00	sm150_4.bt
VISM-8T1E1	05/10/2005	19:59:52	4037880	003.003.020.000	sm150.fw

Step 4 Execute the PXM **install** command.

```
nodename.1.8.PXM.a > install sm <SM slot#> <new-rev>
```

Replace *<SM slot#>* with the slot number of the primary VISM or VISM-PR card.

Replace *<new-rev >* with the version of the new firmware (for example, 003.003.035.204.FW).

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

**Caution**

Ensure that you perform [Step 4](#). If you do not perform [Step 4](#), the boot code is corrupted and not recoverable.

Step 5 Execute the PXM **newrev** command.

```
nodename.1.8.PXM.a > newrev sm <SM slot#> <new-rev>
```

Replace *<SM slot#>* with the slot number of the primary VISM or VISM-PR card.

Replace *<new-rev>* with the version of the new firmware.

The **newrev** command causes the primary VISM or VISM-PR card to reset. The secondary VISM or VISM-PR card becomes active and runs the *new-rev* firmware.

Step 6 Execute the PXM **commit** command.

```
nodename.1.8.PXM.a > commit sm <SM slot#> <new-rev>
```

Replace *<SM slot#>* with the slot number of the primary VISM or VISM-PR card.

Replace *<new-rev>* with the version of the new firmware.

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

Step 7 Log in to the active VISM or VISM-PR card and use the display commands (for example, **dspepdpts**, **dspeasvar**, and so forth) to confirm that the configuration has been preserved through the upgrade process.**Note**

For more than one primary VISM or VISM-PR card in a redundancy group, ensure that the secondary card is in the standby state, and repeat [Step 5](#) and [Step 6](#) for each VISM/VISM-PR card in the redundancy group.

Step 8 Perform the following verifications:

- Make minor modifications to the configuration.
- Check that the changes have been executed correctly.

- Change the configuration back again.

**Note**

If the VISM or VISM-PR card is not part of a redundancy group, complete only [Step 1](#) to [Step 4](#).

Upgrading VISM-PR with PXM1E and PXM45

This section describes the procedures for upgrading VISM-PR software when the VISM-PR is used with a PXM1E or PXM45 card.

To upgrade the VISM-PR image to Release 3.2.1x or later and the PXM1E or PXM45 image from Release 4.x or earlier to Release 5.x, first upgrade the VISM-PR cards. Then, upgrade the PXM1E or PXM45 cards in the same node.

Do not configure the new VISM features until you have fully upgraded the network. After you upgrade your network to PXM1E or PXM45 Release 5.x or later and VISM-PR to Release 3.2.1x or later, apply the standard upgrade process.

Downloading VISM-PR Boot Code and Firmware to PXM1E and PXM45

To download the VISM-PR boot code and firmware to the PXM1E or PXM45 card, use FTP.

Step 1 Access the boot code and firmware images on Cisco.com.

Step 2 To download the images, enter the **ftp** command.

```
ftp node-ip
```

The *node-ip* argument is the IP address of the node to which you want to download the image.

Step 3 Enter your user name and password.

Step 4 Enter **bin**.

Step 5 Change to the C:FW directory.

```
cd C:FW
```

Step 6 Download the images to your C:FW directory.

a. To download one file at a time, use the **put** *image-version* command.

b. To download multiple files at the same time, use the **mput** *<image-version>* *<image-version>* command.

The *image-version* argument is the image that you accessed in [Step 1](#).

Step 7 To exit the download procedure, enter **bye**.

Upgrading Boot Code with PXM1E and PXM45 Cards

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 “[Downloading VISM-PR Boot Code and Firmware to PXM1E and PXM45](#)” section on page 46.

Step 2 Log in to the active PXM1E or PXM45 card.

Step 3 To upgrade the VISM-PR boot, enter the **burnboot** command.

```
nodename.1.7.PXM.a > burnboot <slot> <revision>
```

Replace *<slot>* with the number of the VISM-PR card that you want to upgrade.

Replace *<revision>* with the version of the bootcode you downloaded from [Step 1](#).

The following example shows sample results from the **burnboot** command.

```
nodename.1.7.PXM.a > burnboot 12 3.2(0.0)
```

```
The card in slot 12 will be reset.
```

```
burnboot:Do you want to proceed (Yes/No)? yes
```

For VISM-PR cards without redundancy, the card automatically resets and becomes active with the latest boot code image.

For VISM-PR cards with redundancy, the active card takes approximately 60 seconds to reset as standby. For the original standby card, complete [Step 2–Step 3](#). This card now resets and becomes the standby again, and the standby card is now active.

Upgrading VISM-PR Firmware with PXM1E and PXM45 Cards

Complete the steps in this section to upgrade the VISM-PR firmware. Ensure that the VISM-PR cards have the minimum boot code version of `vism_8t1e1_VI8_BT_3.2.00.fw`.

The following versions of VISM-PR software Release 3.3.35.204 are available:

- 003.003.035.204.FW—Without CALEA
- 003.053.035.204.FW—With CALEA



Caution

If you plan to upgrade PXM cards and VISM-PR modules, upgrade the PXM cards first. Wait until the PXM cards are operating in active and standby modes with the correct software before upgrading the VISM-PR modules. Failing to upgrade the node in the correct order can fail VISM connections, causing significant service disruption.

Perform the firmware upgrade on the VISM-PR cards.

Step 1 Log in 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 To save the existing configuration, enter the **saveallcnf** command.

```
nodename.1.7.PXM.a > saveallcnf
```

Step 4 To load the new software, enter the **loadrev** command.

```
nodename.1.7.PXM.a > loadrev <sm-primary-slot-num> <new-rev>
```

Replace *<sm-primary-slot-num>* with the slot number of the VISM-PR card on which you want to install the new software.

Replace *<new-rev>* with the new firmware version number for the VISM-PR software.

**Caution**

Temporary traffic loss occurs.

Step 5 Ensure that the redundant card is returned to the standby state by executing the **dspcds** command.



Note You must wait for the redundant card to return to the standby state. If you issue the **runrev** command too early, an error message is generated. The rev change does not occur.

Step 6 To execute the download, enter the **runrev** command.

```
nodename.1.7.PXM.a > runrev <sm-primary-slot-num> <new-rev>
```

Replace *<sm-primary-slot-num>* with the slot number of the VISM-PR card on which you want to install the new software.

Replace *<new-rev>* with the new firmware version number for the VISM-PR software.

**Caution**

Temporary traffic loss occurs.

Step 7 Ensure that the primary card completes booting up and goes into the standby state by executing the **dspcds** command.



Note You must wait for the primary card to finish booting up and get to standby state. Issuing the **commitrev** command early might be accepted without an error. However, the active and standby cards might not be swapped back to their original states. For example, the original primary card might be left in standby, and the original redundant card might be left as active.

Step 8 To commit the new download to the VISM-PR card, enter the **commitrev** command.

```
nodename.1.7.PXM.a > commitrev <sm-primary-slot-num> <new-rev>
```

Replace *<sm-primary-slot-num>* with the slot number of the VISM-PR card on which you want to install the new software.

Replace *<new-rev>* with the new firmware version number for the VISM-PR software.

The **commitrev** command switches the primary card from a standby state to an active state and the redundant card from an active state back to a standby state.

Step 9 To verify the card states, execute the **dspcds** command.

Downgrading VISM/VISM-PR

Use this procedure to downgrade VISM/VISM-PR software from software Release 3.3.35 to an earlier VISM/VISM-PR release. If you use the downgrade procedure described here, you can retain the configurations after the downgrade.

**Note**

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/VISM-PR software:

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

```
nodename.1.7.PXM.a > delred <SM slot#>
```

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

Step 3 Execute the PXM **clrmscnf** command.

```
nodename.1.7.PXM.a > clrmscnf <SM slot#>
```

Replace *<SM slot#>* with the slot number of the VISM/VISM-PR card to be downgraded.

Wait for the card to become active. The VISM/VISM-PR card resets after you execute this command.

Step 4 Execute the PXM **restoresmconf** command.

```
nodename.1.7.PXM.a > restoresmconf -f <filename> -s <SM slot#>
```

Replace *<filename>* with 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.

Replace *<SM slot#>* with the slot number of the VISM/VISM-PR card to be downgraded.

The VISM/VISM-PR card resets again. The card becomes active, running the old-rev firmware with the old configuration.

**Note**

For PXM1E/PXM45 cards, you cannot restore the configuration for an individual VISM-PR service module. You can save and restore the configuration of all cards in a chassis using the **saveallcnf** and **restoreallcnf** commands.

**Caution**

The **restoreallcnf** command reconfigures all of the cards in the chassis.

Step 5 Reconfigure the redundancy group, if required.

Upgrading VISM to VISM-PR Hardware

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

**Caution**

For this procedure, 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 change 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 its slot in your chassis.

- Step 2** Install a VISM-PR card in the same slot.
- 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 from which you removed the VISM card in [Step 4](#).
- Step 6** Log in to 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 ensure that the correct card type is shown.
- Step 7** Log in to 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. Repeat the **dspcd** command to ensure 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 its slot in your chassis.
- Step 10** Install a VISM-PR card in the same slot.
- 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 ensure that the correct card type is shown for each.
-

Caveats in Release 3.3.35.201

This section describes the resolved and open caveats in VISM/VISM-PR Release 3.3.35.201.

Resolved Caveats in Release 3.3.35.201

None.

Open Caveats in Release 3.3.35.201

None.

Caveats in Release 3.3.35.203

This section describes the resolved and open caveats in VISM/VISM-PR Release 3.3.35.203.

Resolved Caveats in Release 3.3.35.203

Table 13 *Resolved Caveats in Release 3.3.35.203*

DDTS Issue	Description
CSCee28948	Wrong values accepted for codec jitter delay parameter.
CSCsy79121	DSP release 3.6.37 incorporation checkin.

Open Caveats in Release 3.3.35.203

None.

Caveats in Release 3.3.35

This section describes the resolved and open caveats in VISM/VISM-PR Release 3.3.35.

Resolved Caveats in Release 3.3.35

Table 14 *Resolved Caveats in Release 3.3.35*

DDTS Issue	Description
CSCsm99204	Parameter N: [ipAddr]:port included in CRCX rejected by VISM with 501
CSCsm38671	Frequent DSP failures in VISM
CSCso04178	VISM returns 200 OK when invalid codec string is sent in RCD of CRCX
CSCsm18962	VISM responds with error Insuff. cnx resources
CSCsm87856	VISM upspeeds to incorrect codec(G711) when CCD is conf. as VBD codec
CSCek67944	Alarms in the CID state for multiple EIs when four channels upspeed
CSCek55985	VISM resets on bad SDP message
CSCsm84563	Memory leaks observed when MT is sent with sup(N) event in RQNT in MGCP
CSCsl25735	VISM Trunk conditioning - One way Voice connection
CSCsm99242	RTP Sequence number reset in VISM when ecan is turned off through MDCX
CSCsj41652	VQT stats report have enormously high Interarrival jitter
CSCsq42069	VISM DSP release 3.6.36 incorporation checkin

Open Caveats in Release 3.3.35

None.

Caveats in Release 3.3.30

This section describes the resolved and open caveats in VISM/VISM-PR Release 3.3.30.

Resolved Caveats in Release 3.3.30

Table 15 describes the open caveats in VISM/VISM-PR Release 3.3.30.

Table 15 Resolved Caveats in Release 3.3.30

DDTS Issue	Description
CSCeh83811	G.729ab does not appear to utilize fixed jitter buffer
CSCei03133	AAL2 Trunking G.729ab codec VQ scores are poor
CSCei25172	Vism lines stuck in AIS
CSCei29995	VQT Stats: Latency is zero when VISM-PR interop with other platforms
CSCei61996	VQT Stats: Latency is different between each direction of a call
CSCei81862	VISM-PR does not deal with mp:10;- properly
CSCej06477	some CIDS goes into failed state with 248 PVC
CSCej12076	VISM stops transporting DTMF after BW change
CSCej24027	Commenting out unused DSP files
CSCej27090	AAL2 Invalid CID cps increment even when T1 lines in alarm
CSCej29886	pinglndsp causes DSP to fail
CSCej30039	dspscons command reports incorrect channel number for next available
CSCej35953	Trap 50745 sent twice when disabling alarm log with cnfallalmlog
CSCej37166	PVC alarm log timer can be set to out of range value using SNMP set
CSCej37372	Timer values remain at zero when line almlog is enabled using SNMP
CSCej39020	TDM Line alarms wont clear after using cnfcon on VBR Connections
CSCej45474	Change OAM spelling under dspvismparam command
CSCej45540	RTP connection not received any RTP packets carrying SS7 signaling
CSCej61968	DSP failure : Endpoint is Blocked even after rebind (with new DSP)
CSCej85004	AUEP reason codes need to be realigned for tmp or permanenet failure
CSCej86553	VISM-PR: When all DSPs fail, VISM should NACK all msgs on this endpt
CSCek00085	VISM needs to break capabilities line for image/t38
CSCek23851	VISM SCPU Crashes/Frozen against udp checksum error test
CSCek24036	DSP could not generate NSE193 due to channel busy
CSCek25001	Conn ID implementation is case-sensitive in VISM

Table 15 *Resolved Caveats in Release 3.3.30 (continued)*

DDTS Issue	Description
CSCek28417	Log VISM TDM alarm to PXM while sending alarm message to TDM side
CSCek28893	slave endpoint no concac update when upspeed occurs 8T1/E1 vism
CSCek30356	PVC RX stopped.RxCmpq Ret Conn Num counter of Sar keeps incrementing
CSCek30905	VISMPR G.729 RTP Payload Type should follow RFC 3551 18 not 96
CSCek31974	during faxrealy clear down one end of call hang in faxrelay codec
CSCek34078	During graceful upgrade Feature V110 automatically gets enabled
CSCek34084	DB inconsistent after VISM upgrade 3.3.10 -> 3.3.25
CSCek34908	VISM dont support audio codec and image codec together in LCO
CSCek35114	Multiple connections accepted on a VISM endpoint
CSCek35879	1AESS Interop with VISM (feature check -in)
CSCek36338	D channel does not come up on certain VISM slots
CSCek36375	VISM does not increment the SDP version
CSCek37018	VISM gives parse error for a=sendrec,ptime,mptime with m=image
CSCek37637	Trnasmmit side packet not replicated correctly to DF in calea
CSCek38088	1AESS signaling can be configured in AA12 Trunking mode also
CSCek38424	Codec negotiation does not comply with RFC 3435
CSCek38724	end point not able to reattach after dsp kill
CSCek40460	VISMPR doesnot deal with mp:-;- correctly
CSCek40599	support for G723 and PCMU upspeed for VOATM is not present in VISM
CSCek41174	MGCP 540 Response comment text corrupted
CSCek41529	Error returned by cnfallalmlog Cli
CSCek41685	AUEP reason codes need to be realigned for tmp or permanenet failure
CSCek41847	CIDS are going into Failed state when PVC type changed CBR -> VBR
CSCek41861	ChanNumNextAvailable Value in dspcons CLI output is not Proper
CSCek41986	doing switchredcd from secondry vism to primary vism goes to failed
CSCek42155	change signaling name from 1AESS to oneAESS
CSCek42291	AUEP with F:A causes VISM to crash
CSCek42486	mptime before codecs in LCO causing error
CSCek43434	new cli for enabling/diabbling upspeed at line level
CSCek43750	memory leak in VISM when it receives AUEP with F:A
CSCek43865	Vism returning 200 Ok with missing es-ccd in LCO
CSCek44530	VISM does not support Gammalink and Brooktrout fax adapter
CSCek44849	VISM sending 200 ok when attempted mid call surveillance
CSCek44867	VISM goes to failed state on graceful upgrade
CSCek44868	vism sending 200 ok for unusable ccd parameter
CSCek45421	Ecan remains on when upspeed to clear channel

Table 15 *Resolved Caveats in Release 3.3.30 (continued)*

DDTS Issue	Description
CSCek46252	cnfvbdcdec & cnfprofelemvbd CLIs are not working properly
CSCek46402	VoIPSW mode with CAS signalling VBD=CCD then ECAN remains ON (FAX-PT)
CSCek47258	Upgrade 3.3(214.130)I ---> 3.3(214.135)I not working
CSCek47616	Fax Relay not working in aal2svc mode
CSCek47623	Profile preference 13 cannot be configured
CSCek47925	VISM sends 200 OK for invalid mptime in LCO
CSCek48150	VISM does not send telephone event if dont recieve fntp in SDP
CSCek48452	Modem Calls are NOK in AAL2Tr mode when call orig on SLAVE - CON
CSCek49495	disabling of fax/moedm does not work in swichting mode
CSCek49496	if new cids are added on a line with faxdetection disabled dont work
CSCin91332	DTMF digit detection failures w 45/48,40/55&60/80 ms on/off time
CSCin98304	No traps generated for fax_jitt_mode & fax_jitt_initdelay config.
CSCuk60048	VISM SDP only has LF, not CR-LF, impacting 3rd party gateways

Open Caveats in Release 3.3.30

Table 16 describes the open caveats in VISM/VISM-PR Release 3.3.30.

Table 16 *Open Caveats in Release 3.3.30*

DDTS Issue	Description
CSCek49221	<p>Headline: Card resetting after fax calls are run in VOIP trunking mode.</p> <p>Symptom: Card resets after fax calls are run across VISM PR E1 cards.</p> <p>Conditions: Single PVC for bearer and control traffic.</p> <p>Workaround: None.</p>
CSCek50971	<p>Headline: CAP MIB Update for not supporting vismRtpTriRedundancy, lossless Codec</p> <p>Symptom: vismRtpTriRedundancy and lossless type in vismRtpCodecType are not supported in the VISM.</p> <p>Conditions: VISM with the latest 3.3 image.</p> <p>Workaround: None</p>

Caveats in Release 3.3.25

This section describes the resolved and open caveats in VISM/VISM-PR Release 3.3.25.

Resolved Caveats in Release 3.3.25

Table 17 describes the caveats that have been resolved in Release 3.3.25 as of November 4, 2005.

Table 17 *Resolved Caveats in Release 3.3.25*

DDTS Issue	Description
CSCee41976	VISM cards are failing due to incorrect card id field on MB/DC
CSCee92429	Performance degradation since 3.1.3 results in additional AAL2 errors
CSCeh49678	dspxgcpndpt shows wrong information
CSCeh64800	Fax passthrough fails when excessive jitter is experienced
CSCeh72843	False statistics displayed by dsponcmt after deleting and adding AAL2 CIDs
CSCei20746	Profile 1, 7 (ITU 7) AAL2 indicates generic SID which is incorrect
CSCei54326	VISM stops sending RTCP packets after cnfgwoos forceful
CSCei54618	Discrepancy in the VISM statistical information
CSCei69138	NLP gets stuck in VoIP switching mode
CSCei85965	Insufficient bandwidth causes CIDs to be put OOS after card reset
CSCei87559	Configurable continuity check cell
CSCei93468	Voice path exists when CID is out of service
CSCej16082	Bad voice quality after upgrade from 3.1 to 3.3
CSCej24398	VISM line DB corruption
CSCej24487	Cannot clear dsponcac counter when card is reset
CSCej54263	VISM statistics upload key field for PVC statistics is incorrect
CSCin90085	In RSVP, GUI shows new element created although the LCN does not exist
CSCin95193	Modifying the session type for the RUDP session should throw error

Open Caveats in Release 3.3.25

Table 18 describes the open caveats in VISM/VISM-PR Release 3.3.25 as of November 17, 2005.

Table 18 *Open Caveats in VISM/VISM-PR Release 3.3.25*

DDTS Issue	Description
CSCei29995	<p>Symptom: VISM-PR reports latency of zero when it interoperates with platforms: 2421, 3745, and 5400.</p> <p>Conditions: This issue is seen intermittently in VISM-PR interop testing with 2421, 3745, and 5400.</p> <p>Workaround: None.</p>
CSCei51973	<p>Symptom: Fax retrains to a lower data rate in case of VISM <-> IOS interop.</p> <p>Conditions: With a T38 Fax Relay call between VISM-T1/VISM-PR-T1 (Template 3; G711u) and 5300, 2421, and 3745 IOS platforms, the fax transmission retrains from 14400 bps to 12000 bps. The fax transmission is successful but only at the lower data rate.</p> <p>This conditions occurs when the IOS (5300, 2421, and 3745) platforms originate fax calls. The fax calls run successfully when VISM/VISM-PR originates the call.</p> <p>With VISM interoperating with 5400 and 3810 platforms, this problem is not observed.</p> <p>Workaround: None.</p>
CSCej06477	<p>Symptom: When 248 PVCs are configured and CIDs with G711a and VAD off are added per PVC, some PVCs go into failed state.</p> <p>Conditions: The problem occurs if all 248 PVCs are added and each PVC has one CID on it.</p> <p>Workaround: None.</p>
CSCej12076	<p>Symptom: VISM stops transporting DTMF after BW change.</p> <p>Conditions: CIDS are in alarm state and are not able to transmit DTMF digits.</p> <p>Workaround: None.</p>
CSCej45540	<p>Symptom: The UDP port used by the static RTP stream is used later by a dynamic RTP stream, which causes the datamover to send all of the data from the C7 signaling stream to the incorrect DSP channel.</p> <p>Conditions: This issue occurs because after 1 to 2 hours, more than 248 dynamic RTP connections are set up. The 249 dynamic RTP connections use UDP port 49684, which is used by slot 2, C7 signaling channel. If the call rate is less, the time it takes to the dynamic RTP connection is more.</p> <p>Workaround: Delete the RTP connections for the C7 signal, and add them back with a local UDP port greater than 49748.</p>
CSCej61968	<p>Symptom: Even after successfully recovering from DSP failure, VISM sends a 900 DSP Failure message in response to AUEP message CA.</p> <p>Conditions: This issue occurs with a DSP failure.</p> <p>Workaround: None.</p>

Caveats in Release 3.3.20

This section describes the resolved and open caveats in VISM/VISM-PR Release 3.3.20.

Resolved Caveats in Release 3.3.20

Table 19 describes the caveats that have been resolved in Release 3.3.20 as of August 9, 2005.

Table 19 Resolved Caveats in Release 3.3.20

DDTS Issue	Description
CSCec68687	Simultaneous ISDN call drops not clearing all the endpoints on VISM
CSCef12950	VISM processes calls with Clr Chan Codec and ECAN On
CSCef32606	DSP fails to re-download when DSP failed
CSCef55005	High failure rate for fax passthrough calls on VISM
CSCef55425	Path confirmation failures—G729a codec, adaptive Jtr Delay
CSCef72611	Path confirmation failures with CCD calls and VISM 3.1(3.x)
CSCef80145	No speech with 0 fixed JB, timestamp on and 20 ms codec packet period
CSCeg25307	Increasing the jitter buffer has no effect in one-way delay
CSCeg61617	VISM crashes hours after running PRI backhaul load
CSCeg82063	RTP ports check on RTP stream
CSCeg86053	PVC bandwidth not freed up correctly after FAX relay call
CSCeg86125	VISM-PR DTMF not working for tones of 50 ms or less with Arris E-MTA
CSCeg90314	Wrong values for E1 dsplndsx0s default idle and seize CAS code
CSCeh02598	VISM displays novram via PXM1E incorrectly
CSCeh06598	VISM should return 540 errors instead of 501
CSCeh07389	T38 failed if dtmf-relay low-bit-rate configured on IAD side
CSCeh18123	After failing DSPs, dsplncidcps shows negative values
CSCeh35201	VISM crashes with E1 CCS load—ATMizier not responding
CSCeh36322	Six extra packets cause metallic voice
CSCeh39265	VISM-PR crashes when CP tone SIT is played out
CSCeh46707	Interop with SIP fails as VISM does not accept different codec strings
CSCeh47379	CCS AAL2 Trunking load of 200 V.110 calls cause reset
CSCeh51733	VISM dspsidcps does not show correct display
CSCeh54188	VISM is reset when interop with VXSM
CSCeh58782	32740 byte ping to vism host IP causes card to reset
CSCeh72843	False statistics displayed by dsponent after deleting/adding AAL2 CIDs
CSCeh77215	Softswitch on VISM causes burst of audible noise
CSCeh78724	Calls fail when adding cas variant endpoints in AAL2 trunking mode
CSCeh89668	Remote loopback on VISM does not appear to be working

Table 19 *Resolved Caveats in Release 3.3.20 (continued)*

DDTS Issue	Description
CSCeh91020	E911 call drops when BTS sends piggybacked mgcp messages
CSCei26177	Call failures in benchmark load tests due to call throttling
CSCei26288	Restore the UUI codepoint range of custom profile 210
CSCin82554	VISM-PR sec.card allows SNMP set for trap filtering but not from CLI
CSCin87735	Wrong codec status displayed when fax mode changed to relay/passthru
CSCin89464	D_vismChanState_oid 1.3.6.1.4.1.351.110.5.5.3.2.1.1.2 missing in CF

Open Caveats in Release 3.3.20

Table 20 describes the open caveats in VISM/VISM-PR Release 3.3.20 as of July 19, 2005.

Table 20 *Open Caveats in VISM/VISM-PR Release 3.3.20*

DDTS Issue	Description
CSCeh72843	<p>Symptom: CLI dsponcnt shows false AAL5 statistics when AAL2 CIDs have been deleted and re-added.</p> <p>Conditions: This symptom occurs with the following conditions:</p> <ul style="list-style-type: none"> • AAL2 trunking • CIDs added, deleted and re-added • Releases 3.3.10 and earlier <p>Workaround: Do not delete and re-add CIDs.</p> <p>Issue the clrmscnf command and reconfigure the card if CIDs are changed and statistics are needed.</p>
CSCei25172	<p>Symptom: VISM lines are stuck in AIS.</p> <p>Conditions: VISM-PR-8T1 is configured for AAL2 trunking and has CID. When the DS3 links go down and come back up, the VISM line remains stuck in AIS alarm.</p> <p>Workaround: Disconnect and then reconnect the VISM cable.</p>
CSCei30249	<p>Symptom: VISM resets itself upon receiving RTP packets with different SSRCs on each RTP packet.</p> <p>Conditions: The symptom happens only when VISM receives RTP packets with different SSRCs on each RTP packet.</p> <p>This condition occurred with 12.3.4T6 on one of its IAD 2431 to create the problem.</p> <p>Workaround: Fix the issue on the other side of the RTP session so that the correct SSRCs are used.</p>

Table 20 Open Caveats in VISM/VISM-PR Release 3.3.20 (continued)

DDTS Issue	Description
CSCei54326	<p>Symptom: VISM stops sending RTCP packets after cnfgwoos forceful.</p> <p>Conditions: RTCP packets are not sent from VISM for any of the calls when the VISM meets the following conditions:</p> <ol style="list-style-type: none"> 1. One hundred or more active calls exist. 2. The gateway is forcefully taken out of service: cnfgwoos 2 3. The gateway is put back in service: cnfgwis <p>Workaround: Take the gateway gracefully out of service: cnfgwoos 3</p>
CSCei54618	<p>Symptom: Discrepancy in the VISM statistical information.</p> <p>Conditions: The issue was observed with the CTM /MGM 5.0 Element Management on the MGX 8850 with VISM-PR-8T1/E1 Release 3.3.10.</p> <p>Workaround: Use SNMP to get the current real-time and last 15 minute statistics for unavailable seconds (UAS) statistics.</p> <p>Further Problem Description: The incorrect report value is of the UAS that is calculated by the VISM-PR.</p>
CSCei61996	<p>Symptom: VQT Stats: Latency is different between each direction of a call. During the early stage of a call, the A-->B and B-->A directions of a call report different values of latency.</p> <p>Conditions: This symptom occurs with the following conditions:</p> <ul style="list-style-type: none"> • VAD ON • Fixed jitter buffer • Timestamp disabled • VoIP switching mode <p>Workaround: Use one of the following workarounds:</p> <ol style="list-style-type: none"> 1. Fixed jitter buffer mode with timestamp enabled 2. Adaptive jitter buffer mode 3. VAD disabled
CSCei85965	<p>Symptom: CIDs are put in OOS as a result of insufficient bandwidth.</p> <p>Conditions: Subsequent CIDs will be put in OOS after a card reset.</p> <p>Workaround: Increase the bandwidth on the PVC.</p>

Caveats in Release 3.3.10

This section describes the resolved and open caveats in VISM/VISM-PR Release 3.3.10.

Resolved Caveats in Release 3.3.10

Table 21 describes the caveats that have been resolved in VISM/VISM-PR Release 3.3.10.

Table 21 *Resolved Caveats in VISM/VISM-PR Release 3.3.10*

DDTS Issue	Description
CSCed60487	CLI dspcids does not reflect correct state of the CID
CSCee03716	DTMF Relay: missing digits in VoIP switching mode
CSCee37537	VISM-PR responses to AUEP 502 failed to allocate tuple sometimes
CSCef03116	Fax passthrough fails with AAL2 Trunking, E1 PRI
CSCef03134	Low uplink rate on modem passthrough with AAL2 Trunking, E1-PRI
CSCef10041	VISM sending AIS twice upon detection from line side
CSCef26476	VISM CLI dsplnendptstatus does not reflect correct ECAN value
CSCef39465	HEC errors, invalid OSF cells on all VISM connections
CSCef54851	Connection parameter mismatch with cnfcon CLI command
CSCef61454	Display connection database discrepancy
CSCef69692	SNMP mibwalk stuck in loop when configuration has multiple PVCs
CSCef70885	Some client modems failed to upspeed to the configured VBD codec
CSCef80412	Timestamp discrepancy between PXM1 and VISM-PR
CSCef81423	BTS VoIP Switch T1 CAS 15 cps load causes card resets
CSCef82038	One way traffic on VISM-PR-8E1 for VoIP
CSCef97639	G.729 20 ms codec not supported in template 5 AAL2 Trunking
CSCeg01767	VISM prints debug messages after executing any gain/att CLI
CSCeg02863	Need to remove lossless codec from rtpcons—not supported
CSCeg06965	VISM should handle ICMP traffic gracefully
CSCeg09338	CLI output of dspcons command on VISM needs correcting
CSCeg12913	VISM rejects the a=sendrecv SDP when using image/t38 codec
CSCeg18984	VISM SCPU is crashed/frozen VoIP implementation
CSCeg24368	cnfjtrinitdelay can silently fail to set codec jitter delay
CSCeg27900	After FAX call, VISM sends voice packets when remote TDM alarm
CSCeg29149	printf should only be called when debug flag is set on VISM
CSCeg33271	Modem call failed to upspeed/downspeed
CSCeg33898	VISM card stuck in boot state after issuing ccTraceDump
CSCeg36000	VISM response 200 OK to CRCX but never really create a connection
CSCeg45224	PVC switchover broken in 3.2.11
CSCeg47932	64 character VISM domain name causes VISM card to hang
CSCeg49706	SGCP incorrect order crashes VISM
CSCeg55292	Setting timestamp ON w adaptive jtrmode resets jtrmode to fixed
CSCin79200	Fax Tx is successful using pt when Org-fxlco=pt and Trm-fxlco=gw

Table 21 *Resolved Caveats in VISM/VISM-PR Release 3.3.10 (continued)*

DDTS Issue	Description
CSCin79878	VAD is not turned back to ON after a fax transmission in VISM
CSCin84813	VISM-PR card resets on bulk trap addition
CSCin87238	AAL2 fax passthrough fails for multiple fax calls

Open Caveats in Release 3.3.10

Table 22 describes the open caveats in VISM/VISM-PR Release 3.3.10 as of March 11, 2005.

Table 22 *Open Caveats in VISM/VISM-PR Release 3.3.10*

DDTS Issue	Description
CSCef12950	<p>Symptom: VISM does not disable the ECAN when the codec used is Clear Channel.</p> <p>Conditions: This symptom occurs when Clear Channel is set as the upspeed codec for fax/modem calls. In addition, this occurs when Clear Channel is used as a voice codec and if ECAN is enabled during call setup.</p> <p>Workaround: Do not enable the ECAN through the MGCP, if the codec to be used is Clear Channel. VISM does not reject the MGCP command if ECAN is turned on and the preferred codec is Clear Channel.</p>
CSCeg25307	<p>Symptom: Increasing the jitter buffer has no effect in one-way delay.</p> <p>Conditions: No significant change on one way delay was observed with fixed jitter buffer settings between 60 ms and 100 ms. The expected behavior is that increasing the jitter buffer would also increase the one-way delay value. Tests were performed in AAL2 Trunking mode.</p> <p>Workaround: None.</p>
CSCeg61617	<p>Symptom: VISM crashes hours after running PRI backhaul load.</p> <p>Conditions: While running PRI backhaul load on a fully loaded VISM-PR, the card would reset after running between 12–80 hours.</p> <p>Workaround: The problem is fixed in VISM Patch Release 3.3.0.202. If you are running PRI backhaul load on VISM-PR, it is recommended that you upgrade to this patch release.</p> <p>Contact Cisco TAC to obtain VISM Patch Release 3.3.0.202.</p>
CSCeg82063	<p>Symptom: VISM is not passing packets even if received at the ATM level as shown with the dspsarent command.</p> <p>On the contrary dsprtpcnnstat does not show any RTP packets received or rejected.</p> <p>Conditions:</p> <ol style="list-style-type: none"> VISM should run 3.2(11.202) or above. The CPE should use a different UDP port as source from the UDP, one used as destination. Code 3.2(11.202) introduced this check for security reasons. <p>Workaround: Revert back to 3.1.</p>

Table 22 *Open Caveats in VISM/VISM-PR Release 3.3.10 (continued)*

DDTS Issue	Description
CSCeg85887	<p>Symptom: Card resets when running T.38 load in template 4.</p> <p>Conditions: When configured to template 4, VISM DSPs crash if running T.38 GW mode load.</p> <p>Workaround: Configure the VISM card to template 3, which supports T.38 fax relay.</p>
CSCeg86053	<p>Symptom: In 3.3.10 release, when using ATM Fax Relay feature, VISM checks for at least 200 cps to be available before it can upspeed the CID to Fax Relay mode.</p> <p>However, it utilizes only 50 cps once in Fax Relay mode.</p> <p>Conditions: This affects fax calls on VISM when using a template in AAL2 trunking mode. The configured bandwidth is lesser than that used by fax passthrough.</p> <p>Workaround: Configure the PVC with extra bandwidth of 140 cps, which allows the fax calls on VISM to upspeed to Fax Relay mode.</p>
CSCeg86125	<p>Symptom: When VISM is working with Arris MTAs through DTMF relay and the DTMF digits duration is no more than 50 ms, Arris MTA fails to output the digits correctly. MTAs from other vendors work fine.</p> <p>Conditions: This only happens to Arris MTAs when the DTMF digits are less than or equal to 50 ms. For digits longer than 50 ms, it works fine.</p> <p>Workaround: None.</p>
CSCeh35201	<p>Symptom: VISM crash with E1 CCS load. ATMizier not responding.</p> <p>Conditions: This reset happens in AAL2 Trunking mode with CCS channels that are configured with signaling PVCs.</p> <p>Workaround: Do not configure CCS channels with signaling PVCs. Use Clear Channel codec with bearer PVCs to transport signaling.</p>
CSCeh36322	<p>Symptom: Six extra packets cause metallic voice.</p> <p>When 6 out-of-order RTP packets are received, PSTN side hears robotized voice with the following configuration:</p> <ul style="list-style-type: none"> • dejitter buffer mode: fixed without timestamp • initial delay: 20 ms • codec: G.711A • packetization period: 20 ms <p>Conditions: This problem happens in fixed without timestamp dejitter mode and the above specific configuration.</p> <p>This issue does not happen when less than or more than 6 packets are received.</p> <p>This issue is cleared by another extra packet being added or one packet being dropped.</p> <p>Workaround: Use fixed with timestamp dejitter buffer mode.</p>

Table 22 *Open Caveats in VISM/VISM-PR Release 3.3.10 (continued)*

DDTS Issue	Description
CSCeh47379	<p>Symptom: CCS AAL2 Trunking load of 200 V.110 calls cause reset.</p> <p>VISM-E1/VISM-PR-E1 cards might intermittently reset. For a non-redundant configuration, the card resets and comes back active. If redundancy is configured, the card fails over to a redundant card. PXM log shows reset reason as Watchdog Timeout.</p> <p>Conditions: VISM-E1/VISM-PR-E1 might intermittently reset if all of the following conditions are met:</p> <ol style="list-style-type: none"> 1. Card is configured for AAL2 Trunking mode. 2. Statistics upload feature for VISM-E1/VISM-PR-E1 is enabled, including CID statistics. By default, statistics upload feature is disabled. 3. VISM-E1/VISM-PR-E1 has 200 or more CIDS configured. <p>Workaround: One of the following workarounds can be applied, depending on the customer's requirements related to statistics upload to minimize an impact to their statistics upload capability.</p> <ol style="list-style-type: none"> 1. Disable statistics upload feature all together for all narrow band service module (NBSM) cards. 2. Enable statistics upload feature only for other NBSMs only. 3. Enable statistics upload feature for VISM-E1/VISM-PR-E1, but only for PVC and/or line statistics (no CID statistics enabled).

Caveats in Release 3.3

This section describes the resolved and open software caveats in VISM/VISM-PR Release 3.3.

Resolved Caveats in Release 3.3

[Table 23](#) describes the caveats that have been resolved in VISM/VISM-PR Release 3.3.

Table 23 *Resolved Caveats in VISM/VISM-PR Release 3.3*

DDTS Issue	Description
CSCed10672	VISM supports 217 AAL2 SVC calls on VISM-PR-E1 only.
CSCed43103	VISM should not send any P2P messages in Alarm mode.
CSCed43668	Display of AIS delay time should display remaining time also.
CSCed66304	Video conference freezing under mixed traffic condition.
CSCed74024	T.38 CA controlled mode calls fail after successful initial run.
CSCed83124	CIDs oos while adding when the con is down even enough bandwidth is available.
CSCed84289	Wrong encoding of bits type in ABCD incoming and outgoing pattern.
CSCed85909	Proper error message should be thrown if Channel Modification not possible.

Table 23 *Resolved Caveats in VISM/VISM-PR Release 3.3 (continued)*

DDTS Issue	Description
CSCed86492	VISM does not send busybearercode on random endpts with bulk ATM alarms.
CSCed86763	MIB gets set to none no matter which value is set.
CSCed87750	Line alarms with restoration of ATM trunks.
CSCed88798	During VISM line alarm VISM sends voice packets to network.
CSCed88838	Implement OAM CC cells transmission on VISM.
CSCed89176	Walk on rsvpIfRefreshInterval does not work.
CSCed89221	JitterInitialDelay cannot be SET to non-multiples of 5 for lossless.
CSCed91157	Wrong Transtbl is associated with DSX0 though returns failure.
CSCed92129	Adding CIDs on the second PVC puts all the CIDs oos.
CSCed92165	CID stays in fail state even after LOS got cleared.
CSCed95335	AAL2 Trunking - cnfcodectmpl does not check for CIDs codec types.
CSCee03210	T38 interop fails between VISM and 2421.
CSCee07416	No trap is sent when only BearerBusyCode is change through SNMP set.
CSCee07440	Switch agent should reject SET on BearereBusyCode, if TrunkCond disable.
CSCee09073	VISM 3.2.1–vism_cid table is not updated when changed admin state.
CSCee13138	VISM-PR unreachable from IP cloud.
CSCee20389	tstdelay measurement reported as us instead of ms.
CSCee21753	CAS template allowed to create with out-of-range index 21 by SNMP.
CSCee22756	Media Start package–Packet detector work only on first DSP channel.
CSCee29268	REG5+: VISM MSG #9059 missing from legacy/vismGlobals.c.
CSCee31685	VISM sends extra concealment when init delay is 20 ms and 3 packet lost.
CSCee32065	911 Operator Ringback Fails on VISM.
CSCee35515	CAS signaling channel not programmed during DSP redownload.
CSCee37609	Adding multiple endpoints succeeds but failure reported.
CSCee54848	Spurious upspeed on VISM 3.2.10.
CSCee61267	Increase of PVC bandwidth should be allowed when CIDs are active.
CSCee66023	DSPs failed when running calls on Clear Channel with timestamp enable.
CSCee68257	Support 64 character domain name on VISM.
CSCef23824	VISM card resets when multiple DSPs fail.
CSCef26389	Clock slips on VISM while running load.
CSCin69879	VISM resets on giving addcon with MBS = 0.

Open Caveats

Table 24 describes the open caveats in VISM/VISM-PR Release 3.3 as of September 27, 2004.

Table 24 **Open Caveats for VISM/VISM-PR Release 3.3**

DDTS Issue	Description
CSCec54765	<p>Symptom: VISM regenerates incorrect DTMF on-times in VoIP Trunking mode.</p> <p>Conditions: When DTMF digits with on-times of less than 50 ms are detected on the near-end VISM, the digits are regenerated with inconsistent on/off times on the far end VISM.</p> <p>Workaround: Ensure the DTMF digits that are detected have an on-time value greater than 50–60 ms (preferably greater than 60 ms).</p>
CSCed59217	<p>Symptom: VISM-PR keeps sending DTMF digits when no digit is pressed.</p> <p>Conditions: By random press of the digits on both on-net and off-net phone or the combination of various digits at the same time, the VISM-PR card sends out the DTMF payload type 101 packets every 50 ms (like retransmission) even when digit is entered from the TDM side.</p> <p>Workaround: Press another digit in the normal fashion to clear the problem.</p>
CSCed83268	<p>Symptom: Lower than expected throughput on V.90 modem calls over AAL2. Some modem calls speed shift to V.34 speeds and/or retrain.</p> <p>Conditions: This symptom occurs with VISM to VISM calls as well as VISM to VXSM calls.</p> <p>Workaround: None.</p>
CSCee92429	<p>Symptom: Voice quality issue due to AAL2 packet drops.</p> <p>Conditions: Configure 248 CIDS with G.711a 5 ms with VAD off and subcell muxing enabled from one VISM-PR-E1 to another VISM-PR-E1.</p> <p>Delete some CIDS on one VISM-PR and re-add. The following errors are seen on other side thus causing voice quality issue:</p> <ul style="list-style-type: none"> • AAL2 HEC errors • AAL2 invalid OSF cells • AAL2 invalid length <p>Workaround:</p> <ol style="list-style-type: none"> 1. Turn subcell muxing off and/or turn VAD on. 2. Use G.729 or other 10 ms/20 ms codecs.
CSCef02022	<p>Symptom: VISM advertising the NTE capability with DTMF relay disabled.</p> <p>Conditions: When DTMF Relay is disabled on the VISM, the NTE capability is still advertised by the VISM.</p> <p>Specifically, when the VISM is configured for DTMF relay off (cnfvoiptransparams 2 1 1 1), VISM response to the call agent still advertises the VISM bearer capability to use NTE for digits 0-15.</p> <p>Workaround: None.</p>

Table 24 *Open Caveats for VISM/VISM-PR Release 3.3 (continued)*

DDTS Issue	Description
CSCef32606	<p>Symptom: DSPs stop responding to ping after re-download is initiated when DSPs failed.</p> <p>Conditions: This condition is random. Some DSPs might or might not re-download. This symptom happens when you have connections that are associated with the DSPs prior to the failure. DSP status is not in active state.</p> <p>Workaround: Reset the card.</p>
CSCef39465	<p>Symptom: When the cell rate on one of the VISM connection exceeds its PCR value, HEC Errors and Invalid OSF cell counters starts incrementing on all of the connections on the VISM card.</p> <p>Conditions: This problem happens only in AAL2 trunking mode and with subcell multiplexing on.</p> <p>Workaround: Having a sufficient PCR value on all the VISM connections so that the cell rate on any of the connections exceeds the PCR value is the only solution.</p>
CSCef55005	<p>Symptom: When running high traffic load scenarios with eight fully loaded E1 spans in VoIP switching mode, traffic might include upspeed to G.711, clear channel, or nailed up G.711 voice connections.</p> <p>Packet loss might be encountered on occasion.</p> <p>Conditions: This symptom occurs when concurrent traffic load of G.711 or clear channel with VAD off is sustained on lines with greater than 220 DS0s.</p> <p>Workaround: For G.711 use VAD on because this issue does not occur with VAD on. Currently for clear channel the recommendation is not to load more than seven spans when utilizing 3.3 release.</p>
CSCef55425	<p>Symptom: Path confirmation failures—G.729a codec, adaptive jitter delay.</p> <p>Conditions: At 11 calls per second, 3% of the voice calls fail with path confirmation errors (subsequent).</p> <p>VISM configuration is ISDN-G729a with template 1. Jitter buffer is adaptive with initial delay set at 60 ms.</p> <p>Workaround: Configure fixed jitter buffer delay of any value should resolve this problem for G.729a codec.</p>
CSCef69692	<p>Symptom: Mibwalk stuck in loop on catsAal2PvcHistoryTable.</p> <p>Conditions: Multiple PVCs with multiple bucket interval updates for statistics causes this symptom to occur.</p> <p>Workaround: No workarounds exist for the mibwalk. Except, run the mibwalks right after a card reset.</p> <p>Note SNMP gets for objects within the table work correctly.</p>

Table 24 *Open Caveats for VISM/VISM-PR Release 3.3 (continued)*

DDTS Issue	Description
CSCef72611	<p>Symptom: Path confirmation failures with CCD calls and VISM 3.1(3.x).</p> <p>Conditions: Voice quality degrades (hiss) when running Clear Channel codec when the originating and terminating VISM cards are running different images, for example 3.1.3.x and 3.2.x.x.</p> <p>This problem is not seen with any other codec or when running the Clear Channel codec on both VISM cards that are running the same version.</p> <p>Workaround: Configure VISM to utilize a different codec during upgrades. And/or upgrade both VISM cards to the same version before running Clear Channel voice traffic.</p>
CSCef81423	<p>Symptom: BTS VoIP Switch T1 CAS 15 CPS load causes card resets.</p> <p>Conditions: This problem exists only during CAS call load. VISM supports call rates up to a maximum call load of 10 cps.</p> <p>Workaround: Ensure the call rate for a fully loaded VISM card that is configured for CAS voice traffic does not exceed the supported rate of 10 cps.</p>
CSCeg47932	<p>Symptom: 64 character VISM domain name causes VISM card to hang.</p> <p>Conditions: After adding a 64 character VISM domain name using the cnfvismdn command, the card resets. When the card becomes active and you execute the dspvismdn command, the response shows (null) instead of the vism domain name. If you try to execute the cnfvismdn command again, the prompt hangs indefinitely.</p> <p>This problem is similar to caveat CSCee68257, regarding the call agent domain names instead of the VISM domain name.</p> <p>This symptom occurs on VISM cards with Release 3.3 and a 64 character VISM domain name.</p> <p>Workaround: Clear the configuration and enter only vism domain names with a maximum length of 63 characters.</p>

Related Documentation

The following documents contain information that may be useful to software Release 3.3.35.204 for VISM/VISM-PR:

- *Cisco Voice Interworking Services (VISM) Configuration Guide and Command Reference, Release 3.3*
- *Cisco MGX 8800/8900 Hardware Installation Guide, Releases 2 - 5.2*
- *Cisco MGX 8800/8900 Series Configuration Guide, Release 5.6.00*
- *Cisco MGX 8800/8900 Series Command Reference, Release 5.2*

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<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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