



Cisco Voice Interworking Services (VISM) Configuration Guide and Command Reference

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 Cisco MGX 8850 (PXM45) Multiservice Switch Release 4 **xxxix**

 Cisco MGX 8850 (PXM1E) Multiservice Switch Release 4 **xxxix**

 Cisco MGX 8950 Multiservice Service Release 4 **xxxix**

 SES PNNI Release 4 **xxxix**

 Cisco MGX 8830 Multiservice Switch Release 4 **xxxix**

 Cisco WAN Switching Software Release 9.4 **xxxix**

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Preface

The *Cisco Voice Interworking Services (VISM) Configuration Guide and Command Reference* provides information about the Voice Interworking Service Module (VISM/VISM-PR) Release 3.2.

This preface includes the following sections:

- [Objectives, page xxix](#)
- [Audience, page xxix](#)
- [Document Organization, page xxx](#)
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- [Conventions, page xli](#)
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Objectives

The *Cisco Voice Interworking Services (VISM) Configuration Guide and Command Reference* describes features, functions, installation, operation, and command line interface of the VISM/VISM-PR card.

Audience

This document is intended for the following personnel:

- Technicians responsible for installing VISM/VISM-PR cards on the Cisco MGX 8230, Cisco MGX 8250, Cisco MGX 8830, and Cisco MGX 8850 (PXM1, PXM1E, and PXM45-based) shelves.
- Network administrators responsible for configuring a Cisco MGX 8000 series shelves.

Cisco recommends that installers be familiar with electronic circuitry and wiring practices and have experience as an electronic or electromechanical technician.

Installers and network administrators should also be familiar with Cisco switches and routers, T1 and E1 voice lines, and Cisco wide area networks. Cisco also recommends that you have a system administrator, who is familiar with your network and UNIX servers, present during the initial installation of a Cisco MGX 8000 Series platform.

Document Organization

This document contains the following chapters and appendices:

Chapter 1	New Features in Release 3.2	Describes the new features added to the VISM/VISM-PR card in Release 3.2.
Chapter 2	Overview of the VISM and VISM-PR Cards	Provides a general introduction to VISM and describes the hardware and software modules and installation procedures.
Chapter 4	Telephony Applications Using VISM	Describes VISM applications for a variety of voice networking situations.
Chapter 5	VISM/VISM-PR Functional Description	Describes VISM functional operations.
Chapter 6	Configuring VISM/VISM-PR Features	Describes the initial mandatory configuration procedures for using VISM cards in each of the operating modes.
Chapter 7	CLI Commands	Describes the syntax and semantics of each VISM command line interface command.
Chapter 8	Troubleshooting Tips	Describes VISM troubleshooting tools and techniques.
Appendix A	VISM/VISM-PR Card Clocking Options	Describes clocking configuration for both the VISM card and MGX 8000 Series platform PXM cards.
Appendix B	VISM and VISM-PR Release 3.2 Specifications	Describes the specifications of VISM Release 3.2.

An index is also included.

Related Documentation

This “Related Documentation” section describes the technical manuals and release notes listed in the “Guide to Cisco Multiservice Switch Documentation.” That guide, part DOC-7815358=, shipped with your product.

The following Cisco publications contain information related to the operation of this product and associated equipment in a Cisco WAN switching network.

**Note**

Starting in April 2003, the documents listed in the “Related Documentation” section will be available online only.

There are several ways you can find these documents online:

- In your browser’s URL field, enter **www.cisco.com**. In the top right search field, enter the document part number (for example, OL-3837-01) and click on GO.
- For the Cisco WAN Manager documents, in your browser’s URL field, enter **http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cwm/** and look for the CWM release number.
- For all other documents, in your browser’s URL field, enter **http://www.cisco.com/univercd/cc/td/doc/product/wanbu/index.htm**. Look for the switch name, then release number (for example, MGX 8850 (PXM1E), then Release 4).

Cisco WAN Manager Release 12

[Table 1](#) lists the product documentation for the Cisco WAN Manager (CWM) network management system for Release 12.

Table 1 Cisco WAN Manager Release 12 Documentation

Title	Description
<i>Cisco WAN Manager Installation Guide for Solaris 8, Release 12</i> OL-3837-01	Provides procedures for installing Release 12 of the CWM network management system and Release 5.4 of CiscoView on a Solaris 8 platform.
<i>Cisco WAN Manager User’s Guide, Release 12</i> OL-3838-01	Describes how to use the CWM Release 12 software, which consists of user applications and tools for network management, connection management, network configuration, statistics collection, and security management.
<i>Cisco WAN Manager SNMP Service Agent Guide, Release 12</i> OL-3840-01	Provides information about the CWM Simple Network Management Protocol Service Agent, an optional adjunct to CWM that is used for managing Cisco WAN switches using SNMP.
<i>Cisco WAN Manager Database Interface Guide, Release 12</i> OL-3839-01	Provides information about accessing the CWM Informix OnLine database that is used to store information about the network elements.

Cisco MGX 8850 (PXM45) Multiservice Switch Release 4

Table 2 lists the product documentation for the installation and operation of the Cisco MGX 8850 (PXM45) Multiservice Switch Release 4.

Table 2 Cisco MGX 8850 (PXM45) Release 4 Documentation

Title	Description
<p><i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Hardware Installation Guide</i> OL-3842-01</p>	<p>Describes how to install the Cisco MGX 8950, the Cisco MGX 8850 (PXM1E/PXM45), and the Cisco MGX 8830 switches. This documentation explains what each switch does and covers site preparation, grounding, safety, card installation, and cabling. The Cisco MGX 8850 switch uses either a PXM45 or a PXM1E controller card and provides support for both serial bus based and cell bus based service modules. The Cisco MGX 8950 supports only serial bus based service modules. This hardware installation guide replaces all previous hardware guides for these switches.</p>
<p><i>Frame Relay Software Configuration Guide and Command Reference for the Cisco MGX 8850 FRSM12 Card, Release 3*</i> DOC-7810327=</p>	<p>Describes how to use the high-speed Frame Relay (FRSM-12-T3E3) commands that are available in the CLI of the Cisco MGX 8850 (PXM45) switch.</p>
<p><i>Cisco ATM Services (AXSM) Software Configuration Guide and Command Reference for MGX Switches, Release 4</i> OL-3852-01</p>	<p>Explains how to configure the AXSM cards and a command reference that describes the AXSM commands in detail. The AXSM cards covered in this manual are the AXSM-XG, AXSM/A, AXSM/B, AXSM-E, and AXSM-32-T1E1-E.</p>
<p><i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Software Configuration Guide, Release 4</i> OL-3845-01</p>	<p>Describes how to configure the Cisco MGX 8950, the Cisco MGX 8850 (PXM1E/PXM45), and the Cisco MGX 8830 switches with PXM45 or PXM1E controller cards to operate as ATM core switches or edge switches. This guide also provides some operation and maintenance procedures.</p>
<p><i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Command Reference, Release 4</i> OL-3846-01</p>	<p>Describes the PXM commands that are available on the CLI of the Cisco MGX 8830, Cisco MGX 8850, and Cisco MGX 8950 switches.</p>
<p><i>Cisco Circuit Emulation Software Configuration Guide and Command Reference, Release 4</i> OL-3853-01</p>	<p>Provides software configuration procedures for provisioning connections and managing the CESM cards supported in this release. Also provides descriptions for all CESM commands.</p>
<p><i>Cisco Frame Relay Software Configuration Guide and Command Reference, Release 4</i> OL-3851-01</p>	<p>Provides software configuration procedures for provisioning connections and managing the FRSM cards supported in this release. Also provides descriptions for all FRSM commands.</p>
<p><i>PNNI Network Planning Guide for MGX and SES Products</i> OL-3847-01</p>	<p>Provides guidelines for planning a PNNI network that uses Cisco MGX 8830, MGX 8850 (PXM45 and PXM1E), Cisco MGX 8950, and Cisco BPX 8600 switches. When connected to a PNNI network, each Cisco BPX 8600 series switch requires an SES for PNNI route processing.</p>

Table 2 *Cisco MGX 8850 (PXM45) Release 4 Documentation (continued)*

Title	Description
<i>Cisco MGX Route Processor Module (RPM-XF) Installation and Configuration Guide, Release 4</i> OL-3186-01	Describes how to install and configure the Cisco MGX Route Processor Module (RPM-XF) in the Cisco MGX 8850 (PXM45) and MGX 8950 Release 4 switch. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and basic Cisco IOS configuration information.
<i>Cisco Voice Services (VISM) Configuration and Command Reference Guide Release 3.2</i> OL-4359-01	Describes how to install and configure the Voice Interworking Service Module (VISM) in the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and Cisco CLI configuration information.
<i>Regulatory Compliance and Safety Information for the Cisco MGX 8830, MGX 8850 (PXM45 and PXM1E), and MGX 8950 Switches*</i> DOC-7814790=	Provides regulatory compliance, product warnings, and safety recommendations for the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches.

* This book was last updated for Release 3.

Cisco MGX 8850 (PXM1E) Multiservice Switch Release 4

Table 3 lists the product documentation for the installation and operation of the Cisco MGX 8850 (PXM1E) Multiservice Switch Release 4.

Table 3 *Cisco MGX 8850 (PXM1E) Release 4 Documentation*

Title	Description
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Hardware Installation Guide</i> OL-3842-01	Describes how to install the Cisco MGX 8950, the Cisco MGX 8850 (PXM1E/PXM45), and the Cisco MGX 8830 switches. This documentation explains what each switch does and covers site preparation, grounding, safety, card installation, and cabling. The Cisco MGX 8850 switch uses either a PXM45 or a PXM1E controller card and provides support for both serial bus based and cell bus based service modules. The Cisco MGX 8950 supports only serial bus based service modules. This hardware installation guide replaces all previous hardware guides for these switches.
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Software Configuration Guide, Release 4</i> OL-3845-01	Describes how to configure the Cisco MGX 8950, the Cisco MGX 8850 (PXM1E/PXM45), and the Cisco MGX 8830 switches with PXM45 or PXM1E controller cards to operate as ATM core switches or edge switches. This guide also provides some operation and maintenance procedures.
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Command Reference, Release 4</i> OL-3846-01	Describes the PXM commands that are available on the CLI of the Cisco MGX 8830, Cisco MGX 8850, and Cisco MGX 8950 switches.

Table 3 Cisco MGX 8850 (PXM1E) Release 4 Documentation (continued)

Title	Description
<i>Cisco Circuit Emulation Software Configuration Guide and Command Reference, Release 4</i> OL-3853-01	Provides software configuration procedures for provisioning connections and managing the CESM cards supported in this release. Also provides descriptions for all CESM commands.
<i>Cisco Frame Relay Software Configuration Guide and Command Reference, Release 4</i> OL-3851-01	Provides software configuration procedures for provisioning connections and managing the FRSM cards supported in this release. Also provides descriptions for all FRSM commands.
<i>Cisco AUSM Software Configuration Guide and Command Reference for Cisco MGX 8850 (PXM1E) and Cisco MGX 8830, Release 3*</i> DOC-7814254=	Provides software configuration procedures for provisioning connections and managing the AUSM cards supported in this release. Also provides descriptions for all AUSM commands.
<i>PNNI Network Planning Guide for MGX and SES Products</i> OL-3847-01	Provides guidelines for planning a PNNI network that uses Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), Cisco MGX 8950, and Cisco BPX 8600 switches. When connected to a PNNI network, each Cisco BPX 8600 series switch requires an SES for PNNI route processing.
<i>Cisco Voice Services (VISM) Configuration and Command Reference Guide Release 3.2</i> OL-4359-01	Describes how to install and configure the Voice Interworking Service Module (VISM) in the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and Cisco CLI configuration information.
<i>Regulatory Compliance and Safety Information for the Cisco MGX 8830, MGX 8850 (PXM45 and PXM1E), and MGX 8950 Switches. *</i> DOC-7814790=	Provides regulatory compliance, product warnings, and safety recommendations for the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches.

* This book was last updated for Release 3.

Cisco MGX 8950 Multiservice Service Release 4

Table 4 lists the product documentation for the installation and operation of the Cisco MGX 8950 Multiservice Switch Release 4.

Table 4 Cisco MGX 8950 Release 4 Documentation

Title	Description
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Hardware Installation Guide</i> OL-3842-01	Describes how to install the Cisco MGX 8950, the Cisco MGX 8850 (PXM1E/PXM45), and the Cisco MGX 8830 switches. This documentation explains what each switch does and covers site preparation, grounding, safety, card installation, and cabling. The Cisco MGX 8850 switch uses either a PXM45 or a PXM1E controller card and provides support for both serial bus based and cell bus based service modules. The Cisco MGX 8950 supports only serial us based service modules. This hardware installation guide replaces all previous hardware guides for these switches.
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Software Configuration Guide, Release 4</i> OL-3845-01	Describes how to configure the Cisco MGX 8950, the Cisco MGX 8850 (PXM1E/PXM45), and the Cisco MGX 8830 switches with PXM45 or PXM1E controller cards to operate as ATM core switches or edge switches. This guide also provides some operation and maintenance procedures.
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Command Reference, Release 4</i> OL-3846-01	Describes the PXM commands that are available on the CLI of the Cisco MGX 8830, Cisco MGX 8850, and Cisco MGX 8950 switches.
<i>Cisco ATM Services (AXSM) Software Configuration Guide and Command Reference for MGX Switches, Release 4</i> OL-3852-01	This guide explains how to configure the AXSM cards and a command reference that describes the AXSM commands in detail. The AXSM cards covered in this manual are the AXSM-XG, AXSM/A, AXSM/B, AXSM-E, and AXSM-32-T1E1-E.
<i>PNNI Network Planning Guide for MGX and SES Products</i> OL-3847-01	Provides guidelines for planning a PNNI network that uses Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), Cisco MGX 8950, and Cisco BPX 8600 switches. When connected to a PNNI network, each Cisco BPX 8600 series switch requires an SES for PNNI route processing.
<i>Cisco MGX Route Processor Module (RPM-XF) Installation and Configuration Guide, Release 4</i> OL-3186-01	Describes how to install and configure the Cisco MGX Route Processor Module (RPM-XF) in the Cisco MGX 8850 Release 4 switch. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and basic Cisco IOS configuration information.
<i>Regulatory Compliance and Safety Information for the Cisco MGX 8830, MGX 8850 (PXM45 and PXM1E), and MGX 8950 Switches.</i> * DOC-7814790=	Provides regulatory compliance, product warnings, and safety recommendations for the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches.

* This book was last updated for Release 3.

SES PNNI Release 4

Table 5 lists the product documentation for the understanding, the installation, and the operation of the Service Expansion Shelf (SES) Private Network-to-Network Interface (PNNI) Controller.

Table 5 *SES PNNI Controller Release 4 Documentation*

Title	Description
<i>Cisco SES PNNI Controller Software Configuration Guide, Release 3*</i> DOC-7814258=	Describes how to configure, operate, and maintain the SES PNNI Controller.
<i>Cisco SES PNNI Controller Command Reference, Release 3*</i> DOC-7814260=	Provides a description of the commands used to configure and operate the SES PNNI Controller.
<i>PNNI Network Planning Guide for MGX and SES Products</i> OL-3847-01	Provides guidelines for planning a PNNI network that uses Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), Cisco MGX 8950, and Cisco BPX 8600 switches. When connected to a PNNI network, each Cisco BPX 8600 series switch requires an SES for PNNI route processing.

* This book was last updated for Release 3.

Cisco MGX 8830 Multiservice Switch Release 4

Table 6 lists the product documentation for the installation and operation of the Cisco MGX 8830 Multiservice Switch Release 4.

Table 6 *Cisco MGX 8830 Release 4 Documentation*

Title	Description
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Hardware Installation Guide</i> OL-3842-01	Describes how to install the Cisco MGX 8950, the Cisco MGX 8850 (PXM1E/PXM45), and the Cisco MGX 8830 switches. This documentation explains what each switch does and covers site preparation, grounding, safety, card installation, and cabling. The Cisco MGX 8850 switch uses either a PXM45 or a PXM1E controller card and provides support for both serial bus based and cell bus based service modules. The Cisco MGX 8950 supports only serial bus based service modules. This hardware installation guide replaces all previous hardware guides for these switches.
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Software Configuration Guide, Release 4</i> OL-3845-01	Describes how to configure the Cisco MGX 8950, the Cisco MGX 8850 (PXM1E/PXM45), and the Cisco MGX 8830 switches with PXM45 or PXM1E controller cards to operate as ATM core switches or edge switches. This guide also provides some operation and maintenance procedures.
<i>Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Command Reference, Release 4</i> OL-3846-01	Describes the PXM commands that are available on the CLI of the Cisco MGX 8830, Cisco MGX 8850, and Cisco MGX 8950 switches.

Table 6 Cisco MGX 8830 Release 4 Documentation (continued)

Title	Description
<i>Cisco Circuit Emulation Software Configuration Guide and Command Reference, Release 4</i> OL-3853-01	Provides software configuration procedures for provisioning connections and managing the CESM cards supported in this release. Also provides descriptions for all CESM commands.
<i>Cisco Frame Relay Software Configuration Guide and Command Reference, Release 4</i> OL-3851-01	Provides software configuration procedures for provisioning connections and managing the FRSM cards supported in this release. Also provides descriptions for all FRSM commands.
<i>Cisco AUSM Software Configuration Guide and Command Reference for MGX 8850 (PXM1E) and MGX 8830, Release 3*</i> DOC-7814254=	Provides software configuration procedures for provisioning connections and managing the AUSM cards supported in this release. Also provides descriptions for all AUSM commands.
<i>PNNI Network Planning Guide for MGX and SES Products</i> OL-3847-01	Provides guidelines for planning a PNNI network that uses Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), Cisco MGX 8950, and Cisco BPX 8600 switches. When connected to a PNNI network, each Cisco BPX 8600 series switch requires an SES for PNNI route processing.
<i>Cisco Voice Services (VISM) Configuration and Command Reference Guide Release 3.2</i> OL-4359-01	Describes how to install and configure the Voice Interworking Service Module (VISM) in the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and Cisco CLI configuration information.
<i>Regulatory Compliance and Safety Information for the Cisco MGX 8830, MGX 8850 (PXM45 and PXM1E), and MGX 8950 Switches.*</i> DOC-7814790=	Provides regulatory compliance, product warnings, and safety recommendations for the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches.

* This book was last updated for Release 3.

Cisco WAN Switching Software Release 9.4

Table 7 lists the product documentation for the installation and operation of the Cisco WAN Switching Software Release 9.4.

Table 7 Cisco WAN Switching Release 9.4 Documentation

Title	Description
<i>9.4.00 Version Software Release Notes Cisco WAN Switching System Software</i> OL-3189-01	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.
<i>Cisco BPX 8600 Series Installation and Configuration, Release 9.3.30</i> DOC-7812907=	Provides a general description and technical details of the Cisco BPX broadband switch.

Table 7 Cisco WAN Switching Release 9.4 Documentation (continued)

Title	Description
<i>Cisco WAN Switching Command Reference, Release 9.3.30</i> DOC-7812906=	Provides detailed information on the general command line interface commands.
<i>Cisco IGX 8400 Series Installation Guide</i> OL-1165-05	Provides hardware installation and basic configuration information for Cisco IGX 8400 Series switches that are running Switch Software Release 9.3.30 or later.
<i>Cisco IGX 8400 Series Provisioning Guide</i> OL-1166-03	Provides information for configuration and provisioning of selected services for the Cisco IGX 8400 Series switches that are running Switch Software Release 9.3.30 or later.
<i>Cisco IGX 8400 Series Regulatory Compliance and Safety Information</i> DOC-7813227=	Provides regulatory compliance, product warnings, and safety recommendations for the Cisco IGX 8400 Series switch.

MGX 8850 (PXM1) Edge Concentrator Release 1.2.20



Note

The Release 1.x books have not been updated recently. Please check the Release Notes for the latest information.

[Table 8](#) lists the product documentation for the installation and operation of the Cisco MGX 8850 Edge Concentrator.

Table 8 MGX 8850 Edge Concentrator Release 1.2.20 Documentation

Title	Description
<i>Release Notes for Cisco WAN MGX 8850 (PXM1), MGX 8250, and MGX 8230 Software Version 1.2.20</i> OL-3244-01	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.
<i>Cisco MGX 8850 Edge Concentrator Installation and Configuration, Release 1.1.3</i> DOC-7811223=	Provides installation instructions for the Cisco MGX 8850 edge concentrator.
<i>Cisco MGX 8800 Series Switch Command Reference, Release 1.1.3</i> DOC-7811210=	Provides detailed information on the general command line for the Cisco MGX 8850 edge concentrator.
<i>Cisco MGX 8800 Series Switch System Error Messages, Release 1.1.3</i> DOC-7811240=	Provides error message descriptions and recovery procedures.
<i>Cisco MGX 8850 Multiservice Switch Overview, Release 1.1.3</i> OL-1154-01	Provides a technical description of the system components and functionality of the Cisco MGX 8850 edge concentrator from a technical perspective.

Table 8 *MGX 8850 Edge Concentrator Release 1.2.20 Documentation (continued)*

Title	Description
Cisco MGX Route Processor Module Installation and Configuration Guide, Release 1.1 DOC-7812278=	Describes how to install and configure the Cisco MGX Route Processor Module (RPM/B and RPM-PR) in the Cisco MGX 8850, the Cisco MGX 8250, and the Cisco MGX 8230 edge concentrators. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and basic Cisco IOS configuration information.
Cisco Voice Services (VISM) Configuration and Command Reference Guide Release 3.2 OL-4359-01	Describes how to install and configure the Voice Interworking Service Module (VISM) in the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and Cisco CLI configuration information.

MGX 8250 Edge Concentrator Release 1.2.20

Table 9 lists the product documentation for the installation and operation of the Cisco MGX 8250 Edge Concentrator.

Table 9 *MGX 8250 Multiservice Gateway Documentation*

Title	Description
Release Notes for Cisco WAN MGX 8850 (PXM1), MGX 8250, and MGX 8230 Software Version 1.2.20 OL-3244-01	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.
Cisco MGX 8250 Edge Concentrator Installation and Configuration, Release 1.1.3 DOC-7811217=	Provides installation instructions for the Cisco MGX 8250 Edge Concentrator.
Cisco MGX 8250 Multiservice Gateway Command Reference, Release 1.1.3 DOC-7811212=	Provides detailed information on the general command line interface commands.
Cisco MGX 8250 Multiservice Gateway Error Messages, Release 1.1.3 DOC-7811216=	Provides error message descriptions and recovery procedures.
Cisco MGX 8250 Edge Concentrator Overview, Release 1.1.3 DOC-7811576=	Describes the system components and functionality of the Cisco MGX 8250 Edge Concentrator from a technical perspective.

Table 9 *MGX 8250 Multiservice Gateway Documentation (continued)*

Title	Description
<i>Cisco MGX Route Processor Module Installation and Configuration Guide, Release 1.1</i> DOC-7812278=	Describes how to install and configure the Cisco MGX Route Processor Module (RPM/B and RPM-PR) in the Cisco MGX 8850, the Cisco MGX 8250, and the Cisco MGX 8230 edge concentrators. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and basic Cisco IOS configuration information.
<i>Cisco Voice Services (VISM) Configuration and Command Reference Guide Release 3.2</i> OL-4359-01	Describes how to install and configure the Voice Interworking Service Module (VISM) in the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and Cisco CLI configuration information.

MGX 8230 Edge Concentrator Release 1.2.20

[Table 10](#) lists the product documentation for the installation and operation of the Cisco MGX 8230 Edge Concentrator.

Table 10 *MGX 8230 Edge Concentrator Documentation*

Title	Description
<i>Release Notes for Cisco WAN MGX 8850 (PXM1), MGX 8250, and MGX 8230 Software Version 1.2.20</i> OL-3244-01	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.
<i>Cisco MGX 8230 Edge Concentrator Installation and Configuration, Release 1.1.3</i> DOC-7811215=	Provides installation instructions for the Cisco MGX 8230 Edge Concentrator.
<i>Cisco MGX 8230 Multiservice Gateway Command Reference, Release 1.1.3</i> DOC-7811211=	Provides detailed information on the general command line interface commands.
<i>Cisco MGX 8230 Multiservice Gateway Error Messages, Release 1.1.3</i> DOC-78112113=	Provides error message descriptions and recovery procedures.
<i>Cisco MGX 8230 Edge Concentrator Overview, Release 1.1.3</i> DOC-7812899=	Provides a technical description of the system components and functionality of the Cisco MGX 8250 Edge Concentrator from a technical perspective.

Table 10 MGX 8230 Edge Concentrator Documentation (continued)

Title	Description
Cisco MGX Route Processor Module Installation and Configuration Guide, Release 1.1 DOC-7812278=	Describes how to install and configure the Cisco MGX Route Processor Module (RPM/B and RPM-PR) in the Cisco MGX 8850, the Cisco MGX 8250, and the Cisco MGX 8230 edge concentrators. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and basic Cisco IOS configuration information.
Cisco Voice Services (VISM) Configuration and Command Reference Guide Release 3.2 OL-4359-01	Describes how to install and configure the Voice Interworking Service Module (VISM) in the Cisco MGX 8830, Cisco MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 switches. Also provides site preparation procedures, troubleshooting procedures, maintenance procedures, cable and connector specifications, and Cisco CLI configuration information.

Conventions

This publication uses the following conventions to describe commands:

- **Bold** type—indicates command names and user entry text.
- *Italic* type—indicates arguments for which you supply values.
- |—vertical bars indicate optional arguments.

This publication uses the following conventions to describe examples:

- `Courier` font—indicates terminal sessions and system display information.
- `Courier bold` font—indicates user entry.



Note

Means *reader take note*. Notes contain helpful suggestions or references to materials not contained in this manual.



Caution

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Obtaining Documentation

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

Cisco.com

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

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

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

All users can order annual or quarterly subscriptions through the online Subscription Store:

<http://www.cisco.com/go/subscription>

Click Subscriptions & Promotional Materials in the left navigation bar.

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:
<http://www.cisco.com/en/US/partner/ordering/index.shtml>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit e-mail comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

Cisco TAC Website

The Cisco TAC website (<http://www.cisco.com/tac>) provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year.

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

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

Opening a TAC Case

Using the online TAC Case Open Tool (<http://www.cisco.com/tac/caseopen>) is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer.

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

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

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The Cisco Product Catalog describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:

http://www.cisco.com/en/US/products/products_catalog_links_launch.html

- Cisco Press publishes a wide range of general networking, training and certification titles. Both new and experienced user will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press online at this URL:

<http://www.ciscopress.com>

- Packet magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:

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

- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqumagazine>

- Internet Protocol Journal is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html

- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:

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



New Features in Release 3.2

[Table 1-1](#) summarizes the new features in VISM/VISM-PR Release 3.2 and provides links to the corresponding sections in the documentation.

Table 1-1 *New Features in Release 3.2*

Feature	Description and Link
Lossless Compression	VISM-PR supports a new codec for Lossless compression. See VISM-PR Lossless Compression, page 1-2 .
Call Progress Tones	VISM-PR detects a subset of commonly used call progress tones and reports these tones to the call agent. See Call Progress Tones, page 1-15 .
Wireless Tones	VISM-PR supports the addition of wireless tones to the set of call progress tones. See Wireless Tones, page 1-21 .
Diagnostic Testing for DSP Failures	VISM-PR supports enabling DSP diagnostic testing. See Diagnostic Testing for DSP Failures, page 1-31 .
TGCP 1.0 (IT Packaging and Endpoint Naming)	VISM and VISM-PR support TGCP 1.0. See TGCP 1.0, page 1-34 . See also Call Control Function, page 5-15 of the VISM/VISM-PR Functional Description section.
Alarm Suppression	VISM and VISM-PR support alarm suppression. See Alarm Suppression, page 1-38 .
G.729a with 20 ms	VISM and VISM -PR support the G.729a codec with 20 ms. See G.729a Codec with 20 ms, page 1-41 .
E1 CAS Idle Code	VISM and VISM-PR support E1 CAS idle code. See E1 CAS Idle Code, page 1-44 .

VISM-PR Lossless Compression

In Release 3.2, VISM-PR supports a new codec for Lossless compression. This section describes how to configure the VISM-PR card to support Lossless compression and includes the following sections:

- [Prerequisites, page 1-2](#)
- [Overview, page 1-2](#)
- [Configuration, page 1-3](#)

The Lossless compression feature is available only on VISM-PR hardware.

Prerequisites

Before configuring your VISM-PR card for Lossless compression, complete the following prerequisites:

- Install a VISM-PR into your Cisco MGX 8000 series chassis.
For card installation procedures, see [Hardware Installation, page 3-1](#) of the [Installing VISM/VISM-PR Hardware and Software](#) section.
- Install a PXM card with one of the following software versions:
 - PXM1—1.2.11 or 1.2.21
 - PXM1E—3.0.10, 3.0.23, or 4.0.10
 - PXM45—3.10, 3.0.23, or 4.0.10
- Upgrade to software Release 3.2.
For upgrade information, see [Software Upgrades, page 3-7](#) of the [Installing VISM/VISM-PR Hardware and Software](#) section.

Overview

Lossless compression decompresses voice traffic without changing the original form.

Lossless compression provides the following features:

- Reduces the transmission bandwidth between the base transceiver station (BTS) and the base station controller (BSC).
- Aggregates traffic between the BTS and BSC.
- Compresses traffic.
- Converts traffic from TDM to packet.

The Lossless compression feature includes the Lossless compressed (LLC) codec that allows higher throughput through the T1/E1 lines by removing information redundancy.

The Lossless compression feature supports the following specifications:

- 192 T1 and 248 E1 channels
- Template 5 for Lossless codec
- Same packetization period as clear channel

- SNMP MIB support
- AAL2 trunking mode

**Note**

Lossless codec is not recommended when the voice traffic stream is incompressible. If used with incompressible voice traffic stream, expansion might occur due to internal compression headers.

Configuration

This section provides a quick start procedure for configuring your VISM-PR card for Lossless compression and describes the following procedures:

- [Select the Operating Mode, page 1-4](#)
- [Select the Template, page 1-5](#)
- [Allocate Resources, page 1-6](#)
- [Configure PVC Connection, page 1-6](#)
- [Configure Lines, page 1-8](#)
- [Add Endpoints, page 1-10](#)
- [Add a Channel Identifier, page 1-11](#)
- [Configure Jitter Delay, page 1-14](#)

The following table in this section provides a summary of the tasks required to configure Lossless compression on your VISM-PR card. This procedure is provided as an overview and as a quick reference.

	Command	Purpose
Step 1	cnfvismmode 2 cnfcac Related command dspvismparam	Configure the VISM-PR mode to AAL2 trunking (2). Ensure that CAC is disabled. See the “Select the Operating Mode” procedure on page 1-4 .
Step 2	cnfcodectmpl 5	Select the Lossless codec template (5). See the “Select the Template” procedure on page 1-5 .
Step 3	addport addrscrptn	Add a port, and create a resource partition. See the “Allocate Resources” procedure on page 1-6 .
Step 4	addcon <localVCI> <preference> <pvc_type> <application> <PCR> <mastership> /remote end connection <nodename.slot.port.vpi.vci>	Configure the PVC connection with the PXM or AUSM card. Use the values that are applicable for Lossless compression. See the “Configure PVC Connection” procedure on page 1-6 .
Step 5	addln 1	Add an E1 line to your VISM-PR card. See the “Configure Lines” procedure on page 1-8 .
Step 6	cnflnsig 1 2	Configure signaling on the line for clear channel (2). See the “Configure Lines” procedure on page 1-8 .

	Command	Purpose
Step 7	cnfln <line_number> <line_code> <line_length> <clk_src> <line_type> <loopback_detection> Related command dspln	Configure the line for E1 parameters. See the “Configure Lines” procedure on page 1-8.
Step 8	addendpts <endpt_num> <ds1_num> <ds0_num> <endpts_num>	Add endpoints. Use the endpoint range from 1 to 248 for the Lossless compression template 5. See the “Add Endpoints” procedure on page 1-10.
Step 9	addcid <LCN> <cid_num> <codec_type> <profile_type> <profile_number> <voice_activity_detection> <vad_init_timer> <echo_cancellation> <triple_redundancy_protection> <cas_signaling_transport> <dtmf_tone_transport_as_AAL2> <ICS_enable> <pkt_period> Related commands: dspcid dspcids	Add a channel identifier. Use the endpoint range from 1 to 248 for the Lossless compression template 5. See the “Add a Channel Identifier” procedure on page 1-11.
Step 10	cnfcodecjtrdelay	Configure jitter delay. See the “Configure Jitter Delay” procedure on page 1-14.

Select the Operating Mode

To configure the operating mode on your VISM-PR card as AAL2 trunking for Lossless compression, complete the following steps after power is applied:

- Step 1** Ensure that you have logged in to the PXM card and have used the **cc** command to switch to the VISM-PR card.
- Step 2** To determine the current operating mode of the VISM-PR card, enter the **dspvismparam** command.

```
mgx8850.1.12.VISM8.a > dspvismparam
```



Note A new VISM-PR card (one that has not been configured) is displayed by default in VoIP operating mode.

The operating mode of the VISM card is displayed in the first line of the VISM card parameter list.

```
VISM mode:                voipSwitching/voipTrunking
VISM Features Bit Map:    0x5bc
FunctionModuleType:       VISM-PR-8E1
CAC flag:                 enable
DS0s available:          248
```



```

Template number:          2
Percent of functional DSPs: 100
IP address:              0.0.0.0
Subnet mask:             0.0.0.0
Bearer IP address:       0.0.0.0
Bearer Subnet mask:      0.0.0.0
RTCP report interval:    5000 msec
RTCP receive multiplier: 3
RTP receive timer:       disable
ControlPrecedence/Tos:   0x60
BearerPrecedence/Tos:    0xa0
Aal2 muxing status:      disable
Tftp Server Dn           TFTPDOMAIN
Aggregate Clipping        enable
Aggregate Svc Bandwidth   0

```

Step 3 To configure the operating mode for AAL2 trunking, enter the following **cnfvismmode** command.

```
mgx8850.1.12.VISM8.a > cnfvismmode <mode_number>
```

Replace *<mode_number>* with 2 to indicate AAL2 trunking.

Step 4 Type a **y** after the following warning message appears:

```
WARNING: Available CLI Commands will be changed, do you want to proceed (Yes/No)? y
```

The following informational message displays:

```
INFORMATION: The new 'aal2Trunking' mode has 188 CLI commands.
```

Step 5 If connection admission control (CAC) is enabled, enter the **cnfcac** command.

```
mgx8850.1.12.VISM8.a > cnfcac <cac_flag_enable>
```

Replace *<cac_flag_enable>* with 1 to disable CAC.

CAC reserves bandwidth for voice calls, however, calls using LLC require much less bandwidth than specified by CAC.

Select the Template

After selecting the VISM-PR operating mode, select Template 5 for Lossless compression by completing the following steps:

Step 1 Ensure that you have logged in to the PXM card and have used the **cc** command to switch to the VISM-PR card.

Step 2 Enter the **cnfcodectmpl** command with the following *template_num* parameter for Lossless compression.

```
mgx8850.1.12.VISM8.a > cnfcodectmpl <template_num>
```

Replace *<template_num>* with 5 to select the Lossless compression template.

Step 3 After the following message, type **y** to proceed.

```
The card will be reset, do you want to proceed (Yes/No)? y
```

The prompt displays after the card is reset.

```
mgx8850.1.12.VISM8.a >
```

Allocate Resources

After selecting the Lossless compression codec, allocate resources by completing the following steps:

Step 1 Ensure that you have logged in to the PXM card and have used the **cc** command to switch to the VISM-PR card.

Step 2 To add a virtual port to your VISM-PR card, enter the **addport** command (this command does not have arguments).

```
mgx8850.1.12.VISM8.a > addport
```

This command adds an ATM port on a VISM-PR card. When you add the ATM port, the bandwidth, VPI range, and VCI range are determined. The VPI range is the slot ID.

The added port is not detected by the controller until you create a resource partition (see [Step 3](#)).

Step 3 To create a resource partition, enter the **addrscprtn** command with the *controller_id* argument value of **1**.

```
mgx8850.1.12.VISM8.a > addrscprtn <controller_id>
```

Replace *<controller_id>* with **1**.



Note Always specify the *controller_id* argument value as **1**.

Configure PVC Connection

After allocating resources, configure a PVC connection by completing the following steps:

Step 1 Ensure that you have logged in to the PXM card and have used the **cc** command to switch to the VISM-PR card.

Step 2 To add an ATM PVC between the VISM-PR and PXM cards, enter the **addcon** command with the following arguments:

```
mgx8850.1.12.VISM8.a > addcon <localVCI> <preference> <pvc_type> <application> <PCR>
<mastership> /remoteConnId <nodename.slot.port.vpi.vci>/|serviceType| <scr> <mbs>
```

Replace the above arguments with the values listed in [Table 1-2](#) for the **addcon** parameters. This example shows the following recommended values for Lossless compression.

```
mgx8850.1.12.VISM8.a > addcon 220 1 2 2 50000 1 mgx8850.0.4.120.120
```

Table 1-2 Parameters for addcon Command

Parameter	Description
<i>localVCI</i>	Range from 131 to 510.
<i>preference</i>	Preference level of the local VCI. <ul style="list-style-type: none"> 1 = Primary 2 = Secondary (for redundancy) For Lossless compression, this value is 1.
<i>pvc_type</i>	AAL type of connection. <ul style="list-style-type: none"> 1 = AAL5 2 = AAL2 3 = AAL1 For AAL2 trunking this value is 2.
<i>application</i>	Connection application. <ul style="list-style-type: none"> 1 = Control 2 = Bearer 3 = Signaling Use value 2.
<i>PCR</i>	Peak cell rate defined as cells per second. Use the range from 1 to 60000 for AAL2 E1. For the VBR service type, the minimum PCR is 15.
<i>mastership</i>	Type of connection. <ul style="list-style-type: none"> 1 = Master 2 = Slave Set this value to 1.
<i>/remoteConnId/</i>	(Optional) Remote connection identifier. Type the value in the following format: <i>nodename.slot.port.vpi.vci</i> Note Use the optional <i>/remoteConnId/</i> argument only if you selected the <i>mastership</i> argument value of 1 (Master). This remote end connection could be a PXM or AUSM slave connection already created.

Table 1-2 Parameters for addcon Command (continued)

Parameter	Description
<i>/serviceType</i>	<p>Service type.</p> <ul style="list-style-type: none"> - 1 = Constant bit rate (CBR) - 2 = Variable bit rate real time (rtVBR) - 3 = Variable bit rate non-real time (nrtVBR) - 4 = rt3VBR - 5 = rt2VBR - 6 = nrt2VBR - 7 = nrt3VBR <p>Note Use value 7 for VISM-PR to RPM-PR connections.</p>
<i>/scr/</i>	<p>Sustainable cell rate in the range from 15 to the value you specified for the <i>PCR</i> argument.</p> <p>This argument is required if the <i>serviceType</i> is rt-VBR or nrt-VBR.</p>
<i>/mbs/</i>	<p>Maximum burst rate—number of cells transmitted at the peak cell rate.</p> <p>This value is in the range from 1 to 10 times the value you specified for the <i>scr</i> argument.</p> <p>This argument is required if the <i>serviceType</i> is rt-VBR or nrt-VBR.</p>

Configure Lines

After configuring the PVC, configure the E1 lines of your VISM-PR card by completing the following steps:

Step 1 Ensure that you have logged in to the PXM card and have used the **cc** command to switch to the VISM-PR card.

Step 2 To add a line to your VISM-PR card, enter the **addln** command with the following argument.

```
mgx8850.1.12.VISM8.a > addln <line_number>
```

Replace *<line_number>* with a value in the range 1–8. This example shows adding line 1.

```
mgx8850.1.12.VISM8.a > addln 1
```

Step 3 To configure signaling on the line, enter the **cnflnsig** command with the following arguments:

```
mgx8850.1.12.VISM8.a > cnflnsig <line_number> <signaling_type>
```

Replace *<line_number>* with the value of the line you added in Step 2.

Replace *<signaling_type>* with 2 for CCS.

This example shows configuring line 1 with CCS.

```
mgx8850.1.12.VISM8.a > cnflnsig 1 2
```

Step 4 To configure the parameters of the line you added, enter the **cnfln** command with the following arguments:

```
mgx8850.1.12.VISM8.a > cnfln <line_number> <line_code> <line_len> <clk_src> <line_type>
<loop_detection> |<circuit_identifier>|
```

Replace the above arguments with the values listed in [Table 1-11](#) for the **cnfln** parameters. This example shows the recommended E1 parameters.

```
mgx8850.1.12.VISM8.a > cnfln 1 3 9 2 7 1
```

Table 1-3 Parameters for cnfln Command

Parameter	Description
<i>line_number</i>	Line number in the range 1–8.
<i>line_code</i>	Line coding method. Use one of the following values for E1 lines: <ul style="list-style-type: none"> • 3 = HDB3 for E1 lines • 4 = AMI for T1 or E1 lines
<i>line_len</i>	Line length. Use one of the following values for E1 lines: <ul style="list-style-type: none"> • 8 = AX-SMB-8E1 and AX-R-SMB-8E1 back card types • 9 = AX-RJ48-8E1 and AX-R-RJ48-8E1 back card types
<i>clk_src</i>	Clock source. <ul style="list-style-type: none"> • 1 = Loop clock • 2 = Local clock
<i>line_type</i>	Line type. Use one of the following values for E1 lines: <ul style="list-style-type: none"> • 3 = E1 • 4 = E1CRC • 5 = E1MF • 6 = E1MFCRC • 7 = E1 Clear • 8 = E1Q50 • 9 = E1Q50CRC
<i>loop_detection</i>	Loopback detection. Ensure that this parameter is disabled for Lossless compression. <ul style="list-style-type: none"> • 1 = Disabled • 2 = Enabled
<i>/circuit_identifier/</i>	(Optional) Name of the circuit in ASCII format. Range is 1–64 characters.

Step 5 To display the values of the line, enter the **dspln** command with the *line_number* (1) argument value.

```
mgx8850.1.12.VISM8.a > dspln 1
```

The following example shows some of the sample output from the **dspln** command:

```

LineNum:                1
LineConnectorType:      RJ-48
LineEnable:             Modify
LineType:               dsx1E1CLEAR
LineCoding:             dsx1HDB3
LineLength:            G.703 120 ohm
LineXmtClockSource:     LocalTiming
LineLoopbackCommand:   NoLoop
LineSendCode:          NoCode
LineUsedTimeslotsBitMap: 0xfffffffffe
LineLoopbackCodeDetection: codeDetectDisabled
LineSignalingType:     CCS
LineCcsChannels:       0x0
LineTrunkConditioning: disable
CircuitIdentifier:
TxDigitOrder:          aniThenDnis
TonePlanRegion:
TonePlanVersion:       0
RingingTO:             180
RingBackTO:            180
BusyTO:                30
Type <CR> to continue, Q<CR> to stop:
ReorderTO:             30
DialTO:                16
StutterDialTO:         16
OffHookAlertTO:       5
RemoteRingbackMethod: proxy
LineNumOfValidEntries: 8

```

Add Endpoints

After configuring the E1 lines, add the endpoints by completing the following steps:

-
- Step 1** Ensure that you have logged in to the PXM card and have used the **cc** command to switch to the VISM-PR card.
 - Step 2** Enter the **addendpts** command with the values for the following arguments:

```
mgx8850.1.12.VISM8.a > addendpts <endpt_num> <ds1_num> <ds0_num> <endpts_num>
```

Replace the above arguments with the values listed in [Table 1-4](#) for the **addendpts** parameters. This example shows adding 31 endpoints to line 1 starting at DS0 1 for Lossless compression.

```
mgx8850.1.12.VISM8.a > addendpts 1 1 1 31
```

Table 1-4 Parameters for **addendpts** Command

Parameter	Description
<i>endpt_num</i>	First endpoint number of a range of consecutive endpoints. For Lossless compression use the following range for template 5: VISM-PR E1 1–248.
<i>ds1_num</i>	Line number in the range 1–8.

Table 1-4 Parameters for addendpts Command (continued)

Parameter	Description
<i>ds0_num</i>	DS0 number to which the endpoints are added. Use one of the following ranges for E1 lines: <ul style="list-style-type: none"> • For non-CAS E1 lines, range from 1 to 31 • For CAS E1 lines, range from 1 to 15 and 17 to 31
<i>endpts_num</i>	Number of endpoints you want to add. For Lossless compression use the following range for template 5: VISM-PR E1 1–248.

Step 3 To display the endpoint configurations for line 1, enter the **dspendpt** command.

```
mgx8850.1.12.VISM8.a > dspendpt 1

  EndptNum:      1
  EndptLineNum:  1
  EndptName:     E1-1/1@cisco.com
  EndptSpeed:    64 kbps
  EndptState:    active
  EndptChannelMap:2
  EndptEnable:   active
  EndptLoopback: disabled
```

Add a Channel Identifier

The channel identifier (CID) is a mechanism within AAL2 that allows multiple calls to be transported across a single AAL2 PVC. The **addcid** command binds an endpoint to a logical channel (PVC).

To add a CID to an AAL2 PVC (for AAL2 trunking mode), complete the following steps.

Step 1 Ensure that you have logged in to the PXM card and have used the **cc** command to switch to the VISM-PR card.

Step 2 To add a CID to an AAL2 PVC, enter the **addcid** command with the following arguments:

```
mgx8850.1.12.VISM8.a > addcid <endpt_num> <LCN> <cid_num> <codec_type> <profile_type>
<profile_number> <voice_activity_detection> <vad_init_timer> <echo_cancellation>
<triple_redundancy_protection> <cas_signaling_transport> <dtmf_tone_transport_as_AAL2>
<ICS_enable> <pktPeriod>
```

Replace the above arguments with the values listed in [Table 1-5](#) for the **addcid** parameters. This example shows adding a CID to an AAL2 PVC for Lossless compression.

```
mgx8850.1.12.VISM8.a > addcid 1 220 8 15 3 201 2 250 2 2 2 2 2
```

Table 1-5 Parameters for addcid Command

Parameter	Description
<i>endpt_num</i>	Endpoint to be related to the LCN/CID pair being added. For Lossless compression use the following range for template 5: VISM-PR E1 1–248.
<i>LCN</i>	LCN of the LCN/CID pair in the range 131–510.
<i>cid_num</i>	CID of the LCN/CID pair in the range 8 to 255.
<i>codec_type</i>	Codec type. Use value 15 for Lossless compression. Note VAD must be off when codec is Lossless.
<i>profile_type</i>	Profile type used for the CID. <ul style="list-style-type: none"> 1 = International Telecommunication Union (ITU) I.366.2 3 = Custom
<i>profile_number</i>	Profile number. <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>voice_activity_detection</i>	VAD. For Lossless compression this value must be off. <ul style="list-style-type: none"> 1 = On 2 = Off (default)
<i>vad_init_timer</i>	Holdover timer; in milliseconds. Range is 250–65535.
<i>echo_cancellation</i>	ECAN. For Lossless compression ECAN must be off. <ul style="list-style-type: none"> 1 = ECAN on (default) 2 = ECAN off

Table 1-5 Parameters for addcid Command (continued)

Parameter	Description
<i>triple_redundancy_protection</i>	Triple redundancy protection. For Lossless compression this parameter must be off. <ul style="list-style-type: none"> • 1 = On • 2 = Off (default)
<i>cas_signaling_transport</i>	CAS signaling transport. For Lossless compression this parameter must be off. <ul style="list-style-type: none"> • 1 = On • 2 = Off (default)
<i>dtmf_tone_transport_as_AAL2</i>	DTMF tone transport as AAL2 type 3 packets. For Lossless compression this parameter must be off. <ul style="list-style-type: none"> • 1 = On • 2 = Off (default)
<i>ICS_enable</i>	Idle code suppression. For Lossless compression this parameter must be off. <ul style="list-style-type: none"> • 1 = On • 2 = Off
<i>pkt_period</i>	Packet period (in milliseconds). This parameter can be configured only if the codec is G.729a. The only allowed value is 10 ms.

Step 3 To display the CID you added, enter the **dspsid** command with the LCN number and CID number.

```
mgx8850.1.12.VISM8.a > dspsid 220 8
```

The following information is displayed:

```
LCN number :      220
CID number:      8
Endpoint number : 1
CidRowStatus:    active
Type3redundancy: enabled
VAD:             disabled
VADInitTimer:   250
Profile type:    Custom
Profile number:  201
Codec type:     Lossless
Cas transport:   disabled
DTMF transport: disabled
Ecan on/off:    disabled
ICS enable:     Disabled
pkt period:     5
Cid state:      Active
Cid Fail Reason: High Level
```

Step 4 To display a list of all the CIDs, enter the **dspsids** command with the LCN number.

```
mgx8850.1.12.VISM8.a > dspsids 220
```

The following information is displayed:

LCN Num	CID Num	Endpt Num	Cid Status	Type3 Redun	VAD Timer	Prof Type	Prof Num	Codec Type	Cas Tran	DTMF Tran	ICS Ecan	ICS Enable	Pkt Period	
220	8	1	active	enabl	dis	250	Custo	201	Lossless	dis	dis	dis	Dis	5

Configure Jitter Delay

For Lossless compression, the default jitter delay is 16. Cisco recommends the jitter delay to be at least 16 or 20 depending on your network.



Note

In AAL2 trunking operation mode, you cannot change the jitter parameters while the CIDs are active.

To configure the jitter delay, complete the following steps:

Step 1 Ensure that you have logged in to the PXM card and have used the **cc** command to switch to the VISM-PR card.

Step 2 To display the current jitter delay, enter the **dspscodecjtrdelays** command.

```
mgx8850.1.12.VISM8.a > dspscodecjtrdelays
```

The following example shows the default delays:

codecType	delay mode	initial delay
1 - G.711u	fixed	hundred
2 - G.711a	fixed	hundred
3 - G.726-32K	adaptive	sixty
4 - G.729a	adaptive	sixty
5 - G.729ab	adaptive	sixty
6 - clr chan	fixed	hundred
7 - G.726-16K	adaptive	sixty
8 - G.726-24K	adaptive	sixty
9 - G.726-40K	adaptive	sixty
11 - G.723.1-H	adaptive	sixty
12 - G.723.1a-H	adaptive	sixty
13 - G.723.1-L	adaptive	sixty
14 - G.723.1a-L	adaptive	sixty
15 - Lossless	fixed	sixteen

Step 3 To configure the jitter delay for the Lossless codec, enter the **cnfcodecjtrdelay** command with the jitter delay as 20.

```
mgx8850.1.12.VISM8.a > cnfcodecjtrdelay <codecType> <jitter_mode> <jitter_initdelay>
```

Replace the above arguments with the following values (respectively):

```
mgx8850.1.12.VISM8.a > cnfcodecjtrdelay 15 1 20
```

Step 4 To display the change, enter the **dspscodecjttrdelays** command.

```
mgx8850.1.12.VISM8.a > dspscodecjttrdelays
```

The following example shows the output:

```
codecType          delay mode          initial delay
-----
 1 - G.711u          fixed                hundred
 2 - G.711a          fixed                hundred
 3 - G.726-32K       adaptive             sixty
 4 - G.729a          adaptive             sixty
 5 - G.729ab         adaptive             sixty
 6 - clr chan        fixed                hundred
 7 - G.726-16K       adaptive             sixty
 8 - G.726-24K       adaptive             sixty
 9 - G.726-40K       adaptive             sixty
11 - G.723.1-H       adaptive             sixty
12 - G.723.1a-H     adaptive             sixty
13 - G.723.1-L       adaptive             sixty
14 - G.723.1a-L     adaptive             sixty
15 - Lossless        fixed                twenty
```

You have completed configuring the VISM-PR for Lossless compression.

Call Progress Tones

In a VoIP network, a call agent can originate a call to an analog network. The call supervision information from the analog switch might be sent back as special information tones. A voice gateway can detect the subscriber line tones and pass the tones to the remote gateway as telephony events.

This section contains the following topics:

- [Default Values, page 1-16](#)
- [Configure Call Progress Tones, page 1-18](#)

In Release 3.2 the VISM-PR detects a subset of commonly used call progress tones and reports these tones to the call agent. [Table 1-6](#) lists the supported call progress tones.

Table 1-6 Call Progress Tones

Tone Name	NTE Representation (Decimal)
Ringing	70
Special Ringing	71
Busy	72
Congestion	73
Special Information	74

These tones are only applicable to the VISM-PR card with PXM1, PXM1E, and PXM45 processor cards. The tones are only supported in VoIP switching mode.

**Note**

This feature is not supported on VISM-PR E1 cards.

Although the NTE is sent regardless of the codec, it is recommended that you use codec G.711u. Using any codec other than G.711u can cause distortion in the in-band propagated tone on the other end.

The call progress tones are supported on all of the templates.

Default Values

This section contains the VISM-PR default values for each of the call progress tones. These values are recommended for configuration.

Dual Tones

This section contains the recommended values for the four dual tones.

When the two frequency components of a dual frequency tone are less than 60 Hz apart, the frequency pair must be configured according to the following formula:

frequency pair $(F1 + F2)/2, 0$

For example, if the Ringback tone has the following frequency components: F1= 440 Hz, F2 = 480 Hz, the frequency must be configured as Freq1 = 460, Freq2 = 0.

The cadences of the tones are used to differentiate between tones that have overlapping frequencies.

**Note**

If the call agent requests multiple dual-frequency tone events which have overlapping frequencies and cadences, the VISM-PR attempts to match the tones in ascending order of the requested event Ids (Event Number). The lowest event ID that matches the frequency and cadence combination is reported to the call agent.

Ringback Tone

```
PXM1E_SJ.1.28.VISM8.a > dspdualtonedet 1
```

```
Tone Index:          1
Event Number:        70
Freq1:               460 Hz
Freq2:               0 Hz
OnCadence:           2000 ms
OffCadence:          4000 ms
CadenceMatch:        1
FreqMaxDeviation:    30 Hz
ToneMaxPower:        -3 dB
ToneMinPwr:          -35 dB
TonePwrTwist:         10
FreqMaxDelay:        100 ms
MinOnCadence:        200 ms
axOffCadence:        4500 ms
```

Special Ringback Tone

```
PXM1E_SJ.1.28.VISM8.a > dspdualtonedet 2

Tone Index:           2
Event Number:         71
Freq1:                460 Hz
Freq2:                0 Hz
Oncadence:            1000 ms
OffCadence:           3000 ms
CadenceMatch:         1
FreqMaxDeviation:     30 Hz
ToneMaxPower:         -3 dB
ToneMinPwr:           -35 dB
TonePwrTwist:         10
FreqMaxDelay:         100 ms
MinOnCadence:         200 ms
MaxOffCadence:        4500 ms
```

Busy Tone

```
PXM1E_SJ.1.28.VISM8.a > dspdualtonedet 3

Tone Index:           3
Event Number:         72
Freq1:                480 Hz
Freq2:                620 Hz
Oncadence:            500 ms
OffCadence:           500 ms
CadenceMatch:         1
FreqMaxDeviation:     30 Hz
ToneMaxPower:         -3 dB
ToneMinPwr:           -35 dB
TonePwrTwist:         10
FreqMaxDelay:         100 ms
MinOnCadence:         200 ms
MaxOffCadence:        4500 ms
```

Congestion Tone

```
PXM1E_SJ.1.28.VISM8.a > dspdualtonedet 4

Tone Index:           4
Event Number:         73
Freq1:                480 Hz
Freq2:                620 Hz
Oncadence:            250 ms
OffCadence:           250 ms
CadenceMatch:         1
FreqMaxDeviation:     30 Hz
ToneMaxPower:         -3 dB
ToneMinPwr:           -35 dB
TonePwrTwist:         10
FreqMaxDelay:         100 ms
MinOnCadence:         200 ms
MaxOffCadence:        4500 ms
```

Special Information Tone

The following values are recommended for a sequential tone.

```
PXM1E_SJ.1.28.VISM8.a > dpseqtonedet

seqToneNumOfFrequencies      3
seqToneEventID               74
seqToneDurationOfEachTone    330 ms
seqToneGapBetweenEachTone    10 ms
seqToneDurationDeviation     20 ms
seqToneMaximumGapDuration    150 ms
seqToneGapDurationDeviation  20
seqToneFreqDeviation         40 Hz
seqTonePowerLevelCeiling     -3 dB
seqTonePowerLevelFloor       -35 dB
seqToneFrequency1            950 Hz
seqToneFrequency2            1400 Hz
seqToneFrequency3            1800 Hz
seqToneFrequency4            280 Hz
seqToneFrequency5            280 Hz
seqToneFrequency6            280 Hz
seqToneFrequency7            280 Hz
seqToneFrequency8            280 Hz
seqToneFrequency9            280 Hz
seqToneFrequency10           280 Hz
```

Configure Call Progress Tones

This section contains the following call progress tones configuration information:

- [Configure Dual Tones, page 1-18](#)
- [Configure Sequential Tones, page 1-20](#)

Configure Dual Tones

To add or delete dual tones, complete the following steps:

-
- Step 1** Ensure you have configured the call agent for the VISM-PR card.
- Step 2** To add a dual frequency tone, enter the **adddualtonedet** command.

```
PXM1E_SJ.1.28.VISM8.a > adddualtonedet <dtoneId> <dteventId> <dtfreq1> <dtfreq2>
<onCadence> <offCadence> [<cadMatch> <maxFreqDev> <maxPwr> <minPwr> <pwrTwist> <maxDelay>
<minOnCad> <maxOffCad>]
```

Replace the above values with the values listed in [Table 1-11](#).



Note Cisco recommends that you use the dual tones values listed in the [Default Values](#) section.

Table 1-7 Parameters for the *addualtonedet* Command

Parameter	Description
<i>dttoneId</i>	Dual tone ID. Range is 1–10.
<i>dteventId</i>	Dual tone event ID. Range is 0–255.
<i>dtfreq1</i>	Dual tone first frequency. Range is 280–3800 Hz.
<i>dtfreq2</i>	Dual tone second frequency. Range is 0–3800 Hz.
<i>onCadence</i>	Time duration in the tone cycle when the tone is played. Range is <i>minOnCad</i> –5000 ms in units of 10 ms.
<i>offCadence</i>	Duration of silence in the tone cycle. Range is <i>maxOffCad</i> –5000 ms in units of 10 ms.
<i>cadMatch</i>	(Optional) Number of cadence cycles to match before reporting the tone. Range is 0–6 matches.
<i>maxFreqDev</i>	(Optional) Maximum frequency deviation of the dual tone. Range is 10–125 Hz.
<i>maxPwr</i>	(Optional) Maximum power level of the dual tone. Range is absolute values of 0–30 db.
<i>minPwr</i>	(Optional) Minimum power level of the dual tone. Range is 10–35 db.
<i>pwrTwist</i>	(Optional) Power twist in the dual tone. Range is 0–15 db.
<i>maxDelay</i>	(Optional) Maximum delay in the dual tone. Range is 0–100 ms in units of 10 ms.
<i>minOnCad</i>	(Optional) Minimum on-time duration in the tone cycle. Range is 3–100 ms in units of 10 ms.
<i>maxOffCad</i>	(Optional) Maximum off-time duration. Range is 5–5000 ms in units of 10 ms.

Step 3 To display a dual frequency tone, enter the **dspdualtonedet** command.

```
PXM1E_SJ.1.28.VISM8.a > dspdualtonedet <tone_det_num>
```

Replace the *<tone_det_num>* with the dual tone ID.

```
PXM1E_SJ.1.28.VISM8.a > dspdualtonedet 1
```

Step 4 To remove a dual frequency tone, enter the **deldualtonedet** command.

```
PXM1E_SJ.1.28.VISM8.a > deldualtonedet <vismConfigToneDetectNum>
```

Replace the *<vismConfigToneDetectNum>* with the dual tone ID.

```
PXM1E_SJ.1.28.VISM8.a > deldualtonedet 1
```

Configure Sequential Tones

A sequential tone is a sequence of single frequencies. Sequential tones can be configured, but they cannot be deleted.



Note

If you do not configure sequential tones, the VISM-PR uses the default system settings.

Step 1 Ensure you have configured the call agent for the VISM-PR card.

Step 2 To change the default settings of a sequential tone, enter the **cnfseqtonedet** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfseqtonedet <numfreq> <eventid> <tonedur> <tonegap> <durdev>
<maxgap> <gapdev> <freqdev> |<maxpwr> <minpwr>| <freq1>,[<freq2>,<freq3>... <freq10>]
```

Replace the above values with the values listed in [Table 1-8](#).

Table 1-8 Parameters for the cnfseqtonedet Command

Parameter	Description
<i>numfreq</i>	Number frequency. Range is 1–10.
<i>eventid</i>	Event ID. Range is 0– 255.
<i>tonedur</i>	Duration of the tone. Range is 1–65534 ms.
<i>tonegap</i>	Amount of time between the different frequencies of the sequential tone. Range is 1–6553 ms.
<i>durdev</i>	Deviation in the durations of the sequential tone frequencies. Range is 1–4095 ms.
<i>maxgap</i>	Maximum time between the different frequencies of the sequential tone. Range is 1–4095 ms.
<i>gapdev</i>	Deviation in the inter-frequency time duration. Range is 1–4095.
<i>freqdev</i>	Deviation in the duration of the sequential tone frequencies. Range is 1–1000 Hz.
<i>maxpwr</i>	(Optional) Maximum power level of the sequential tone. Range is absolute values of 0 to -40 db.
<i>minpwr</i>	(Optional) Minimum power level of the sequential tone. Range is 0 to -40 db.
<i>freq1</i> (Optional: <i>freq2</i> , <i>freq3</i> ... <i>freq10</i>)	Different frequencies that make up the sequential tone. Range is 280–3800 Hz. For example, the special information tone is made up of three frequencies. The first three frequencies (<i>freq1</i> – <i>freq3</i>) have valid values. The other frequencies (<i>freq4</i> – <i>freq10</i>) have default values of 280 Hz.

Step 3 To display a sequential tone, enter the **dspseqtonedet** command.

```
PXM1E_SJ.1.28.VISM8.a > dspseqtonedet
```


Wireless Tones

This release supports the addition of wireless tones to the set of call progress tones. These wireless tones are required to alert the mobile stations.

VISM-PR supports programmable tones through 48 built-in country tone plans. Also, VISM supports 32 user defined tones through an external text file that is downloaded via a TFTP server. This feature adds wireless tones to the set of existing tone plans: dial tone, stutter tone, ring-back tone, busy tone, fast busy tone, alert tone.

Wireless tones are only supported on the VISM-PR in the switched VoIP mode. Also, wireless tones are only supported for the TDM interface and for MGC signaling.

This section contains the following topics:

- [List of Supported Tones, page 1-21](#)
- [Tone Plan File Description, page 1-22](#)
- [Adding the Tone Plan, page 1-26](#)

List of Supported Tones

VISM provides the following wireless tones for the built-in tone plans:

- Dial Tone
- Ringback or AudibleAlerting
- InterceptTone or Mobil Reorder
- CongestionTone or ReorderTone
- BusyTone
- ConfirmationTone
- AnswerTone
- CallWaitingTone
- OffHookTone
- RecallDialTone
- BargeInTone
- PPCInsufficientTone
- PPCWarningTone1
- PPCWarningTone2
- PPCWarningTone3
- PPCDisconnectTone
- PPCRedirectTone
- TonesOff
- PipTone
- AbbreviatedIntercept
- AbbreviatedCongestion

- WarningTone
- DenialToneBurst
- DialToneBurst
- IncomingAdditionalCallTone

Up to 28 additional custom tones are supported for each user configurable tone plan.

Tone Plan File Description

Tone definitions are specified in ASCII files, one file per tone plan. These files are stored on a TFTP server in the directory /tftpboot.

[Example 1-1](#) shows a tone plan file named `UnitedStates_2_tone_plan_file.txt`. An explanation of the fields follows the example.

Example 1-1 Tone Plan Definition File

```

////////////////////////////////////
// Comments : Text after '/' through the end of the line are ignored.
////////////////////////////////////
System Section
////////////////////////////////////
version 2
description "Tone Plan Defined for CompanyX"
////////////////////////////////////
Tones Section
////////////////////////////////////
dial_tone 1 14656 0 0 400 0 65535 0 65535
stutter_tone 2 4000 4000 0 350 440 100 100 1
ring_back_tone 2 3681 3681 0 440 480 2000 4000 1
busy_tone 2 2070 2070 45000 480 620 500 500 1
fast_busy_tone 2 2070 2070 16000 440 620 250 250 1
alert_tone 1 14656 0 45000 400 0 65535 0 1
intercept_tone 2 2070 2070 2000 440 620 250 250 1
confirmation_tone 1 8241 0 2000 440 0 100 150 1
answer_tone 1 8241 0 6000 440 0 100 100 1 440 0 100 900 1
call_waiting_tone 1 8241 0 6000 440 0 100 100 1 440 0 100 900 1
recall_dial_tone 1 14656 0 45000 400 0 65535 0 1
berge_in_tone 1 4634 0 0 1004 0 65535 0 65535
ppc_insuffice_tone 1 4000 4000 0 480 0 100 100 3
ppc_warn1_tone 1 4000 4000 0 480 0 200 65535 1
ppc_warn2_tone 1 4000 4000 0 480 0 100 200 2
ppc_warn3_tone 1 4000 4000 0 480 0 100 200 3
ppc_disc_tone 1 4000 4000 0 480 0 400 65535 1
ppc_redirect_tone 1 4000 4000 0 480 0 200 200 2
all_tone_off 1 0 0 0 0 0 65535 0 1 0 0 0 0 0
pip_tone 1 14656 0 0 480 0 100 900 1
warning_tone 1 4634 0 0 1004 0 65535 0 1
denial_tone 1 4634 0 0 1004 0 65535 0 1
custom1_tone 1 14656 0 0 480 0 100 900 1 // Click Tone
custom2_tone 1 4634 0 0 1004 0 65535 0 65535 // Milliwatt Tone -20dBm
custom3_tone 1 46348 0 0 1004 0 65535 0 65535 // Milliwatt Tone 0dBm
custom4_tone 1 0 0 0 0 0 65535 0 65535 // Scilence
// custom5_tone
// custom6_tone
// custom7_tone
// custom8_tone
// custom9_tone
// custom10_tone

```

```

// custom11_tone
// custom12_tone
// custom13_tone
// custom14_tone
// custom15_tone
// custom16_tone
// custom17_tone
// custom18_tone
// custom19_tone
// custom20_tone
// custom21_tone
// custom22_tone
// custom23_tone
// custom24_tone
// custom25_tone
// custom26_tone
// custom27_tone
// custom28_tone
dtmf_digit 16384 16384
mf_r1_digit 16384 16384
/////////////////////////////////////////////////////////////////

```

- **File name**—The name of the tone plan file is restricted to 64 characters.
- **System Section** are mandatory keywords. Use this section to define tone plans. This section can contain only the following two lines:
 - *version*—Use version **2** to define the tone plan with wireless tones. Version 2 includes the format of version 1 with additional syntax items for defining the tones.
 - *description*—Provide a general description of the tone plan.
- **Tone Section** are mandatory keywords. Use this section to define the call progress tones. Specify each tone on a separate line, and use white spaces as delimiters.

The syntax of the tone plan definition file must be specified in the following order and on the same line:

```

<tone_name> <number_of_freq_components> <amp_of_first> <amp_of_second> <timeout>
<freq_1st_cadence1> <freq_2nd_cadence1> <ontime_cadence1> <offtime_cadence1>
<repeat_count_cadence1>
[<freq_1st_cadence2> <freq_2nd_cadence2> <ontime_cadence2> <offtime_cadence2>
<repeat_count_cadence2>]
[<freq_1st_cadence3> <freq_2nd_cadence3> <ontime_cadence3> <offtime_cadence3>
<repeat_count_cadence3>]
[<freq_1st_cadence4> <freq_2nd_cadence4> <ontime_cadence4> <offtime_cadence4>
<repeat_count_cadence4>]

```

Table 1-9 lists the mandatory values for defining the call tones.

Table 1-9 Mandatory Parameters for Defining Tones

Syntax Item	Description
<i>tone_name</i>	<p>Identifies the tone as one of the following values:</p> <ul style="list-style-type: none"> • dial_tone • stutter_tone • ring_back_tone • busy_tone • fast_busy_tone • alert_tone • intercept_tone • confirmation_tone • answer_tone • call_waiting_tone • recall_dial_tone • berge_in_tone • ppc_insuffice_tone • ppc_warn1_tone • ppc_warn2_tone • ppc_warn3_tone • ppc_disc_tone • ppc_redirect_tone • all_tone_off • pip_tone • warning_tone • denial_tone • custom1_tone • custom2_tone • custom3_tone • custom4_tone • custom5_tone • custom6_tone • custom7_tone • custom8_tone • custom9_tone • custom10_tone • custom11_tone • custom12_tone • custom13_tone • custom14_tone • custom15_tone • custom16_tone • custom17_tone • custom18_tone • custom19_tone • custom20_tone • custom21_tone • custom22_tone • custom23_tone • custom24_tone • custom25_tone • custom26_tone • custom27_tone • custom28_tone
<i>number_of_freq_components</i>	<p>Number of frequency components as one of the following values:</p> <ul style="list-style-type: none"> • 1 • 2
<i>amp_of_first</i> ¹	<p>Peak-to-peak amplitude of the first frequency according to the following formula:</p> $46348 * 10 \text{ to the power of } (\text{dBm}/20)$ <p>Value range is 0–65535.</p>

Table 1-9 Mandatory Parameters for Defining Tones (continued)

Syntax Item	Description
<i>amp_of_second</i> ¹	Peak-to-peak amplitude of the second frequency according to the following formula: $46348 * 10$ to the power of (dBm/20) Value range is 0–65535.
<i>timeout</i>	Time when tone generation is stopped. Range is 0–65535 msec. A value of 0 means no timeout, and thus the tone is stopped explicitly by call agent.
<i>freq_1st_cadence1</i>	First frequency in cadence 1. Range is 0–3999 Hz.
<i>freq_2nd_cadence1</i>	Second frequency in cadence 1. Range is 0–3999 Hz.
<i>ontime_cadence1</i>	First on time that the tone plays in cadence 1. Range is 0–65535 msec.
<i>offtime_cadence1</i>	First off time that the tone does not play in cadence 1. Range is 0–65535 msec.
<i>repeat_count_cadence1</i>	Repeat count for cadence 1. Range is 1–65535 msec.

1. To specify amplitudes of DTMF and MFR1 tones, you must use the following syntax: **dtmf_digit** amp-low amp-high or **mf_r1_digit** amp-low amp-high. The amp-low value = low group frequency. The amp-high value = high group frequency.

Table 1-10 describes the optional parameters you can use to define the tones.

Table 1-10 Optional Parameters for Defining Tones

Syntax Item	Description
<i>freq_1st_cadence2</i>	First frequency in cadence 2. Range is 0–3999 Hz.
<i>freq_2nd_cadence2</i>	Second frequency in cadence 2. Range is 0–3999 Hz.
<i>ontime_cadence2</i>	First on time that the tone plays in cadence 2. Range is 0–65535 msec.
<i>offtime_cadence2</i>	First off time that the tone does not play in cadence 2. Range is 0–65535 msec.
<i>repeat_count_cadence2</i>	Repeat count for cadence 2. Range is 1–65535 msec.
<i>freq_1st_cadence3</i>	First frequency in cadence 3. Range is 0–3999 Hz.
<i>freq_2nd_cadence3</i>	Second frequency in cadence 3. Range is 0–3999 Hz.
<i>ontime_cadence3</i>	First on time that the tone plays in cadence 3. Range is 0–65535 msec.
<i>offtime_cadence3</i>	First off time that the tone does not play in cadence 3. Range is 0–65535 msec.
<i>repeat_count_cadence3</i>	Repeat count for cadence 3. Range is 1–65535 msec.
<i>freq_1st_cadence4</i>	First frequency in cadence 4. Range is 0–3999 Hz.
<i>freq_2nd_cadence4</i>	Second frequency in cadence 4. Range is 0–3999 Hz.
<i>ontime_cadence4</i>	First on time that the tone plays in cadence 4. Range is 0–65535 msec.

Table 1-10 Optional Parameters for Defining Tones (continued)

Syntax Item	Description
<i>offtime_cadence4</i>	First off time that the tone does not play in cadence 4. Range is 0–65535 msec.
<i>repeat_count_cadence4</i>	Repeat count for cadence 4. Range is 1–65535 msec.

Adding the Tone Plan

To add a tone plan to the VISM-PR card, complete the following steps.

- Step 1** Use your text editor to create the new tone plan according to the format listed in the [Tone Plan File Description](#) above.



Note The file name must not exceed 64 characters.

- Step 2** Place the new tone plan on the TFTP server in the /tftpboot directory.
- Step 3** Add the TFTP server domain name to the VISM-PR card by entering the **adddn** command.

```
PXM1E_SJ.1.28.VISM8.a > adddn <mg_domain_num> <mg_domain_name> [Resolution_Type]
```

Replace the above values with the values listed in [Table 1-11](#). This example shows adding the TFTP server with the name tftp_server.

```
PXM1E_SJ.1.28.VISM8.a > adddn 1 tftp_server 1
```

Table 1-11 Parameters for the adddn Command

Parameter	Description
<i>mg_domain_num</i>	Number to identify this domain in the range 1–11.

Table 1-11 Parameters for the `adddn` Command (continued)

Parameter	Description
<i>mg_domain_name</i>	Name of the TFTP server as a text string with 1–64 characters.
<i>Resolution_Type</i>	(Optional) Resolution type to configure for the specified domain name. It can be one of the following values: <ul style="list-style-type: none"> • 1 = Internal only (default). You must statically provision all IP addresses on the VISM-PR card for the domain name. The VISM-PR card does not resolve the domain name using an external domain name server (DNS). • 2 = External only. The VISM-PR card attempts to resolve the domain name using an external DNS. Statically configured IP addresses for this domain name are not used. • 3 = Internal first. The VISM-PR card attempts to resolve the domain name using an external DNS. The VISM-PR card uses the statically provisioned IP addresses for this domain name before using IP addresses from external resolution. • 4 = External first. The VISM-PR card attempts to resolve the domain name using an external DNS. The VISM-PR card uses IP addresses from external resolution before using the statically provisioned IP addresses.

Step 4 Add the IP address of the TFTP server by entering the **adddnip** command.

```
PXM1E_SJ.1.28.VISM8.a > adddnip <Resolution_index> <DomainName> <IpAddress> <preference>
```

Replace the above values with the values listed in [Table 1-12](#). This example shows adding the IP address of the TFTP server with the name `tftp_server`.

```
PXM1E_SJ.1.28.VISM8.a > adddnip 1 tftp_server 172.29.52.18 1
```

Table 1-12 Parameters for the `adddnip` Command

Parameter	Description
<i>Resolution_index</i>	Resolution number of the domain name in the range 1–88.
<i>DomainName</i>	Name of the TFTP server as a text string with 1–64 characters.
<i>IpAddress</i>	IP address which corresponds to the <i>DomainName</i> argument. This value must be in the following format: nnn.nnn.nnn.nnn.
<i>preference</i>	IP address resolution preference order in the range 1 (highest) –8. Note The preference order must be unique for all IP addresses you specify with the <i>DomainName</i> argument.

Step 5 Configure the parameters of the TFTP server domain name by entering the **cnftftpdn** command.

```
PXM1E_SJ.1.28.VISM8.a > cnftftpdn <domain_name>
```

Replace *<domain_name>* with the name of your TFTP server. This example shows configuring the parameters for the `tftp_server` server.

```
PXM1E_SJ.1.28.VISM8.a > cnftftpdn tftp_server
```

Step 6 Ensure you can ping the VISM-PR from the TFTP server.

Also check that the TFTP functionality is enabled on the TFTP server.

Step 7 Add the new tone plan to the VISM card by entering the **addtoneplan** command.

```
PXM1E_SJ.1.28.VISM8.a > addtoneplan <tone_plan_region> <tone_plan_version>
<tone_plan_file>
```

Replace the above values with the values listed in [Table 1-13](#). This example shows adding the `custx2_tone.txt` to the United States country tone plan.

```
PXM1E_SJ.1.28.VISM8.a > addtoneplan UnitedStates 2 custx2_tone.txt
TFTP: Transferred file='custx2_tone.txt', size=3108 bytes, sec=0, nsec=80000000
```

Table 1-13 Parameters for the addtoneplan Command

Parameter	Description
<i>tone_plan_region</i>	Tone plan country or region to which you want to add the tone plan. This value is in the range 1–64 alphanumeric characters and can contain underscores (_). This value is case sensitive.
<i>tone_plan_version</i>	Tone plan version number of the tone plan country or region to which you are adding. This value is in the range 1–65535.
<i>tone_plan_file</i>	Tone plan file name (names are located in the TFTP server /tftpboot directory). The range is 1–32 alphanumeric characters and can contain underscores (_), dashes (-), and dots (.).

Step 8 Ensure that the tone plan is added by entering the **dsptoneplans** command.

```
PXM1E_SJ.1.28.VISM8.a > dsptoneplans
```

```
Status          Tone Plan Region          Version  Tone Plan File Name
-----
configure      UnitedStates             2      custx2_tone.txt
configure      ITU                      1      BUILTIN
configure      NorthAmerica            1      BUILTIN
configure      Argentina               1      BUILTIN
configure      Australia               1      BUILTIN
configure      Austria                 1      BUILTIN
configure      Belgium                 1      BUILTIN
configure      Brazil                  1      BUILTIN
configure      Canada                  1      BUILTIN
configure      China                   1      BUILTIN
configure      Cyprus                  1      BUILTIN
configure      CzechRepublic           1      BUILTIN
configure      Denmark                 1      BUILTIN
configure      Finland                 1      BUILTIN
configure      France                   1      BUILTIN
configure      Germany                  1      BUILTIN
```



```

configure Greece 1 BUILTIN
configure HongKong 1 BUILTIN
configure Hungary 1 BUILTIN
configure Iceland 1 BUILTIN
configure India 1 BUILTIN
configure Indonesia 1 BUILTIN
configure Ireland 1 BUILTIN
configure Israel 1 BUILTIN
configure Italy 1 BUILTIN
configure Japan 1 BUILTIN
configure KoreaRepublic 1 BUILTIN
configure Luxembourg 1 BUILTIN
configure Malaysia 1 BUILTIN
configure Mexico 1 BUILTIN
configure Netherlands 1 BUILTIN
configure NewZealand 1 BUILTIN
configure Norway 1 BUILTIN
configure Philippines 1 BUILTIN
configure Poland 1 BUILTIN
configure Portugal 1 BUILTIN
configure Russia 1 BUILTIN
configure Singapore 1 BUILTIN
configure Slovakia 1 BUILTIN
configure Slovenia 1 BUILTIN
configure SouthAfrica 1 BUILTIN
configure Spain 1 BUILTIN
configure Sweden 1 BUILTIN
configure Switzerland 1 BUILTIN
configure Taiwan 1 BUILTIN
configure Thailand 1 BUILTIN
configure Turkey 1 BUILTIN
configure UnitedKingdom 1 BUILTIN
configure UnitedStates 1 BUILTIN

```

Total number of Tone Plans = 50.

Step 9 To display the elements of a tone plan enter the **dsptoneplan** command.

(Some parts of the example in this step are truncated.)

```
PXM1E_SJ.1.28.VISM8.a > dsptoneplan UnitedStates 2
```

```

Region Name          : UnitedStates
Version              : 2
Description           : Tone Plan defined for CustX
File name            : cust2_tone.txt

```

```

DTMF Amplitude (Low Group) : 16384
DTMF Amplitude (High Group) : 16384
MF R1 Amplitude (Low Group) : 16384
MF R1 Amplitude (High Group) : 16384

```

```

-----
Name          Defined No.Freq.  Amp1  Amp2  Timeout (ms)
-----
dial_tone     YES      1      14656  0      0
stutter_tone  YES      2      4000   4000   0
ring_back_tone YES      2      3681   3681   0
busy_tone     YES      2      2070   2070   45000
fast_busy_tone YES      2      2070   2070   16000
alert_tone    YES      1      14656  0      45000
intercept_tone YES      2      2070   2070   2000
confirmation_tone YES      1      8241   0      2000
answer_tone   YES      1      8241   0      6000

```

call_waiting_tone	YES	1	8241	0	6000
recall_dial_tone	YES	1	14656	0	45000
berge_in_tone	YES	1	4634	0	0
ppc_insuffice_tone	YES	1	4000	4000	0
ppc_warn1_tone	YES	1	4000	4000	0
ppc_warn2_tone	YES	1	4000	4000	0
ppc_warn3_tone	YES	1	4000	4000	0
ppc_disc_tone	YES	1	4000	4000	0
ppc_redirect_tone	YES	1	4000	4000	0
all_tone_off	YES	1	0	0	0
pip_tone	YES	1	14656	0	0
warning_tone	YES	1	4634	0	0
denial_tone	YES	1	4634	0	0
custom1_tone	YES	1	14656	0	0
custom2_tone	YES	1	4634	0	0
custom3_tone	YES	1	46348	0	0
custom4_tone	YES	1	0	0	0
custom5_tone	NO	-	-	-	-
custom6_tone	NO	-	-	-	-
custom7_tone	NO	-	-	-	-
custom8_tone	NO	-	-	-	-
custom9_tone	NO	-	-	-	-
custom10_tone	NO	-	-	-	-
custom11_tone	NO	-	-	-	-
custom12_tone	NO	-	-	-	-
custom13_tone	NO	-	-	-	-
custom14_tone	NO	-	-	-	-
custom15_tone	NO	-	-	-	-
custom16_tone	NO	-	-	-	-
custom17_tone	NO	-	-	-	-
custom18_tone	NO	-	-	-	-
custom19_tone	NO	-	-	-	-
custom20_tone	NO	-	-	-	-
custom21_tone	NO	-	-	-	-
custom22_tone	NO	-	-	-	-
custom23_tone	NO	-	-	-	-
custom24_tone	NO	-	-	-	-
custom25_tone	NO	-	-	-	-
custom26_tone	NO	-	-	-	-
custom27_tone	NO	-	-	-	-
custom28_tone	NO	-	-	-	-

Name	Cadence 1					Cade		
	Freq1 Hz	Freq2 Hz	OnTm1 ms	OffTm2 ms	Repeat count1	Freq1 Hz	Freq2 Hz	OnTt ms2
dial_tone	400	0	65535	0	65535	0	0	0
stutter_tone	350	440	100	100	1	0	0	0
ring_back_tone	440	480	2000	4000	1	0	0	0
busy_tone	480	620	500	500	1	0	0	0
fast_busy_tone	440	620	250	250	1	0	0	0
alert_tone	400	0	65535	0	1	0	0	0
intercept_tone	440	620	250	250	1	0	0	0
confirmation_tone	440	0	100	150	1	0	0	0
answer_tone	440	0	100	100	1	440	0	11
call_waiting_tone	440	0	100	100	1	440	0	11
recall_dial_tone	400	0	65535	0	1	0	0	0
berge_in_tone	1004	0	65535	0	65535	0	0	0
ppc_insuffice_tone	480	0	100	100	3	0	0	0
ppc_warn1_tone	480	0	200	65535	1	0	0	0
ppc_warn2_tone	480	0	100	200	2	0	0	0
ppc_warn3_tone	480	0	100	200	3	0	0	0
ppc_disc_tone	480	0	400	65535	1	0	0	0

ppc_redirect_tone	480	0	200	200	2	0	0	0
all_tone_off	0	0	65535	0	1	0	0	0
pip_tone	480	0	100	900	1	0	0	0
warning_tone	1004	0	65535	0	1	0	0	0
denial_tone	1004	0	65535	0	1	0	0	0
custom1_tone	480	0	100	900	1	0	0	0
custom2_tone	1004	0	65535	0	65535	0	0	0
custom3_tone	1004	0	65535	0	65535	0	0	0
custom4_tone	0	0	65535	0	65535	0	0	0
custom5_tone	-	-	-	-	-	-	-	-
custom6_tone	-	-	-	-	-	-	-	-
custom7_tone	-	-	-	-	-	-	-	-
custom8_tone	-	-	-	-	-	-	-	-
custom9_tone	-	-	-	-	-	-	-	-
custom10_tone	-	-	-	-	-	-	-	-
custom11_tone	-	-	-	-	-	-	-	-
custom12_tone	-	-	-	-	-	-	-	-
custom13_tone	-	-	-	-	-	-	-	-
custom14_tone	-	-	-	-	-	-	-	-
custom15_tone	-	-	-	-	-	-	-	-
custom16_tone	-	-	-	-	-	-	-	-
custom17_tone	-	-	-	-	-	-	-	-
custom18_tone	-	-	-	-	-	-	-	-
custom19_tone	-	-	-	-	-	-	-	-
custom20_tone	-	-	-	-	-	-	-	-
custom21_tone	-	-	-	-	-	-	-	-
custom22_tone	-	-	-	-	-	-	-	-
custom23_tone	-	-	-	-	-	-	-	-
custom24_tone	-	-	-	-	-	-	-	-
custom25_tone	-	-	-	-	-	-	-	-
custom26_tone	-	-	-	-	-	-	-	-
custom27_tone	-	-	-	-	-	-	-	-
custom28_tone	-	-	-	-	-	-	-	-

Diagnostic Testing for DSP Failures

When a VISM-PR card detects channel failures on the DSP, the call agent and CWM are informed. In AAL2 trunking mode a trap is generated for a DSP failure.

For DSPs to initiate diagnostics and report any failures to the call agent or CWM, the exec diag, that performs the diagnostic activities, must be enabled. If the exec diag is disabled, DSP failures are not reported.

Enable or Disable Diagnostics

To ensure that exec diag is enabled, use the commands in the following steps.



Note By default, exec diag is enabled.

Step 1 Log in to your VISM-PR card.

Step 2 To enable or disable the exec diag for all of the channels on a VISM-PR card, enter the **cnfexecdiag** command.

```
mgx.1.28.VISM8.a > cnfexecdiag <execdiag>
```

Replace *<execdiag>* with a value of 1 to enable or 2 to disable the exec diag on all of the channels.

Step 3 Display the testing status (enabled or disables) of all the channels on the VISM-PR card using the **dspexecdiag** command.

```
mgx.1.28.VISM8.a > dspexecdiag
```

LineNo/Ds0No	DSP Exec Status
1/ 1	Enable
1/ 2	Enable
1/ 3	Enable
1/ 4	Enable
1/ 5	Enable
1/ 6	Enable
1/ 7	Enable
1/ 8	Enable
1/ 9	Enable
1/10	Enable
1/11	Enable
1/12	Enable
1/13	Enable
1/14	Enable
1/15	Enable
1/16	Enable
1/17	Enable
1/18	Enable
1/19	Enable
1/20	Enable
1/21	Enable
1/22	Enable
1/23	Enable
1/24	Enable
INFO: line ds1 '2' is not enabled	
INFO: line ds1 '3' is not enabled	
INFO: line ds1 '4' is not enabled	
INFO: line ds1 '5' is not enabled	
INFO: line ds1 '6' is not enabled	
INFO: line ds1 '7' is not enabled	
INFO: line ds1 '8' is not enabled	

Step 4 To configure channel level diagnostics on a line, enter the **cnflnexecdiag** command.

```
mgx.1.28.VISM8.a > cnflnexecdiag <line_number> <execdiag>
```

Replace *<line_number>* with the line number, in the range 1–8; replace *<execdiag>* with a 1 to enable or 2 to disable diagnostics. The following example shows channel diagnostics enabled on line 1.

```
mgx.1.28.VISM8.a > cnflnexecdiag 1 1
```

- Step 5** To verify all endpoints on the line are enabled for channel level diagnostics, enter the **dsplnexecdiag** command with the line number *<line_number>* value.

```
mgx.1.28.VISM8.a > dsplnexecdiag 1
```

LineNo/Ds0No	DSP Exec Status
1/ 1	Enable
1/ 2	Enable
1/ 3	Enable
1/ 4	Enable
1/ 5	Enable
1/ 6	Enable
1/ 7	Enable
1/ 8	Enable
1/ 9	Enable
1/10	Enable
1/11	Enable
1/12	Enable
1/13	Enable
1/14	Enable
1/15	Enable
1/16	Enable
1/17	Enable
1/18	Enable
1/19	Enable
1/20	Enable
1/21	Enable
1/22	Enable
1/23	Enable
1/24	Enable

- Step 6** To enable testing on an individual endpoint, enter the **cnfds0execdiag** command.

```
mgx.1.28.VISM8.a > cnfds0execdiag <line_number> <ds0_number> <execdiag>
```

Replace *<line_number>* with the line, in the range 1–8; replace *<ds0_number>* with a value in the range 1–24 for T1 lines or 1–31 for E1 lines; replace *<execdiag>* with a 1 to enable or 2 to disable diagnostics.

- Step 7** To verify that testing is enabled on a channel, enter the **dspds0execdiag** command with the line number *<line_number>* and DS0 number *<ds0_number>*.

```
mgx.1.28.VISM8.a > dspds0execdiag 1 1
```

LineNo/Ds0No	DSP Exec Status
1/ 1	Enable

Configure Heartbeat Timer

The DSP has a heartbeat mechanism that sends an "I'm alive and well" message at a regular intervals. If a heartbeat does not reach the host, the DSP is considered failed. The host displays the heartbeat messages and the interval it receives the messages.

For the DSP to generate a heartbeat message within a specified period of time, the heartbeat timer value must be set on the VISM-PR card.

Step 1 Log in to the VISM-PR card.

Step 2 To configure the heartbeat timer, enter the **cnfdspheartbeattimer** command.

```
mgx.1.28.VISM8.a > cnfdspheartbeattimer <Heart_beat_interval>
```

Replace *<Heart_beat_interval>* with a timeout value of 0 or a value in the range 100–65535. The recommended timer is 0 (disabled). The following example shows the timeout value of 0.

```
mgx.1.28.VISM8.a > cnfdspheartbeattimer 0
```

Step 3 Display the heartbeat value configured of the VISM-PR card by entering the **dspheartbeattimer** command.

```
mgx.1.28.VISM8.a > dspheartbeattimer
```

```
DSP Heartbeat timer value: 0
```

TGCP 1.0

The Trunking Gateway Control Protocol (TGCP) is a profile of the Media Gateway Control Protocol (MGCP) 1.0 that is used to control the trunking gateway in packet cable network.

This section contains the following topics:

- [Configure TGCP, page 1-34](#)
- [Configure the Timers, page 1-37](#)

Configure TGCP

To configure the call agent for TGCP 1.0 protocol, complete the following steps.

Step 1 Ensure that TGCP 1.0 appears as an Media Gateway protocol by entering the **dspmprotocols** command.

```
PXM1E_SJ.1.28.VISM8.a > dspmprotocols
```

Number	mgProtocol
1	MGCP 0.1
2	SGCP 1.1+
3	SRCP 1.0.2
4	SGCP 1.5
5	MGCP 1.0
6	TGCP 1.0

Step 2 Add TGCP 1.0 as an MGC group protocol by entering the **addmgcgrpprotocol** command.

```
addmgcgrpprotocol <Red_Group_Num> <protocol_number> <Qrntn_Persist> <Qrntn_Def>
<Sign_OnOff> <Prov_Resp> <RspAck_Attr> <Disc_Proc> <Cancel_Graceful>
```

Replace the above values with the values listed in [Table 1-11](#). This example shows adding TGCP 1.0 protocol to redundancy group 1.

```
PXM1E_SJ.1.28.VISM8.a > addmgcgrpprotocol 1 6 1 1 2 1 1 1 1
```

Table 14 Parameters for the addmgcgrpprotocol Command

Parameter	Description
<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>protocol_number</i>	Protocol number. <ul style="list-style-type: none"> • 1 = MGCP 0.1 • 2 = SGCP 1.1+ • 3 = SRCP 1.0.2 • 4 = SGCP 1.5 • 5 = MGCP 1.0 • 6 = TGCP 1.0
<i>Qrntn_Persist</i>	(Optional) Quarantine handling method for persistent events. <ul style="list-style-type: none"> • 1 = Quarantine persistent events (Default) • 2 = Do not quarantine persistent events
<i>Qrntn_Def</i>	(Optional) Default quarantine handling method for each protocol. <ul style="list-style-type: none"> • 1 = Step, process (Default for MGCP 1.0 and TGCP 1.0) • 2 = Step, discard (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5) • 3 = Loop, process • 4 = Loop, discard <p>Note Step means one notification command is generated per notification request. Loop means multiple notification commands are generated per notification request.</p>
<i>Sign_OnOff</i>	(Optional) Value to delete events. <ul style="list-style-type: none"> • 1 = Delete events from the previous list which are not present in the current list. (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5) • 2 = Delete negative events. Remove events from the previous list, only if the event is present in the current list with hyphen (-) as the parameter. (Default for MGCP 1.0 and TGCP 1.0)
<i>Prov_Resp</i>	(Optional) Value that enables or disables the sending of a provisional response. <ul style="list-style-type: none"> • 1 = Send (Default for MGCP 1.0 and TGCP 1.0) • 2 = Not send (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)

Table 14 Parameters for the `addmgcgrprotocol` Command (continued)

Parameter	Description
<i>RspAck_Attr</i>	(Optional) Value that enables or disables sending a response acknowledgment. <ul style="list-style-type: none"> 1 = Send (Default for MGCP 1.0 and TGCP 1.0) 2 = Not send (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<i>Disc_Proc</i>	(Optional) Value that enables or disables the disconnect process. A disconnect indicates that the endpoint has become disconnected and is trying to establish connectivity. <ul style="list-style-type: none"> 1 = Enable (Default for MGCP 1.0 and TGCP 1.0) 2 = Disable (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<i>Cancel_Graceful</i>	(Optional) Value that enables or disables VISM cancelling a previously issued graceful restart-in-progress command. <ul style="list-style-type: none"> 1 = Send (Default for MGCP 1.0 and TGCP 1.0) 2 = Not send (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)

Step 3 To change the protocol or any optional parameters of a redundancy group, enter the `cnfmgcgrprotocol` command with the following parameters listed in [Table 1-11](#).

Step 4 To verify that TGCP 1.0 has been added to the MGC redundancy group, enter the `dspmgcgrprotocols` command.

```
PXM1E_SJ.1.28.VISM8.a > dspmgcgrprotocols
```

```

MgcGrp Prot   Qrntn   Qrntn   Sign     Prov     RspAck   Disc   Cancel
 Num   Num   Persist Def     OnOff    Resp     Attr     Proc   Graceful
-----
 1   TGCP 1.0   Qrtn StepProcess   DelNegEvt   Send     Send   Enable   Send

```

The above example shows the default values for TGCP 1.0.

Step 5 To delete TGCP 1.0 from a specified call agent redundancy group, enter the `delmgcgrprotocol` command.

```
PXM1E_SJ.1.28.VISM8.a > delmgcgrprotocol <Red_Group_Num> <protocol_number>
```

Replace *Red_Group_Num* with a value of 1–8 and the *protocol_number* with 6 shown in the following example:

```
PXM1E_SJ.1.28.VISM8.a > delmgcgrprotocol 1 6
```


Configure the Timers

To configure the timers for TGCP, complete the following steps.

- Step 1** Configure the timeout value by entering the **cnflongdurationtimer** command.

```
cvgmgx1a.1.20.VISM8.a > cnflongdurationtimer <timeout>
```

Replace the *<timeout>* parameter with a value in the range 0–24 hours. The following example shows the timeout value configured to 1 hour.

```
cvgmgx1a.1.20.VISM8.a > cnflongdurationtimer 1
```

- Step 2** Display the long duration timer value by entering the **dsplongdurationtimer** command.

```
cvgmgx1a.1.20.VISM8.a > dsplongdurationtimer
```

```
Long duration timer value: 1
```

- Step 3** Configure the continuity timers by entering the **cnfco1timer** and **cnfco2timer** commands.

```
cvgmgx1a.1.20.VISM8.a > cnfco1timer <timeout>
```

```
cvgmgx1a.1.20.VISM8.a > cnfco2timer <timeout>
```

Replace the *<timeout>* parameter with a value in the range 0–60 seconds. The following example shows the continuity timer 1 timeout is set to 3 seconds, and the continuity timer 2 is set to 60 seconds.

```
cvgmgx1a.1.20.VISM8.a > cnfco1timer 3
```

```
cvgmgx1a.1.20.VISM8.a > cnfco2timer 60
```

- Step 4** Display the continuity timer timeout values by entering the **dscco1timer** and **dscco2timer** commands:

```
cvgmgx1a.1.20.VISM8.a > dscco1timer
```

```
CO1 timer value: 3
```

```
cvgmgx1a.1.20.VISM8.a > dscco2timer
```

```
CO2 timer value: 60
```

- Step 5** Specify the timers for TGCP 1.0 by entering the **cnfdisctimers** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfdisctimers <TdInit> <TdMin> <TdMax>
```

Replace the above values with the values listed in [Table 15](#).

Table 15 Parameters for the cnfdisctimers Command

Parameter	Description
<i>TdInit</i>	Initial disconnect waiting delay time (defined in seconds). Range is 1–100.
<i>TdMin</i>	Minimum disconnect waiting delay time (defined in seconds). In the range from 0 to 100.
<i>TdMax</i>	Maximum disconnect waiting delay time (defined in seconds). In the range from 1 to 5000.

Alarm Suppression

The purpose of this feature is to prevent the CPE from dropping calls when a network link failure is temporary.

This section contains the following topics:

- [Configure AIS Suppression, page 1-38](#)
- [Configure OAM Loop Count, page 1-39](#)
- [Display Alarms, page 1-39](#)
- [Alarms not Suppressed, page 1-41](#)
- [Upgrade Notes, page 1-41](#)

If the endpoint is in AAL2 trunking mode, the VISM/VISM-PR propagates network alarms to the T1/E1 line that is associated with the network link. The CPE equipment (PBX) receives this alarm and drops the calls.

VISM/VISM-PR processes several alarms. However, for this feature, only the following alarms are suppressed:

- OAM Alarm Indication Signal (AIS)
- OAM Far End Receive Failure (FERF)
- OAM Remote Defect Indication (RDI)

In this release only, these alarms do not propagate onto the T1/E1 lines as line alarms, which cause call drops.

Since this alarm suppression causes network link failures to be ignored, the OAM end-to-end loopback monitoring function must be configured to detect permanent network failures.

Configure AIS Suppression

By default, alarm indication signal (AIS) suppression is disabled. VISM/VISM-PR cards on both ends of the AAL2 trunk need to be loaded with firmware that supports and enables AIS suppression.

To enable AIS suppression, complete the following steps.



Note

You can only enable or disable AIS suppression in the AAL2 trunking mode. The other modes do not support this function.

Step 1 Ensure that the VISM/VISM-PR card is in AAL2 trunking mode.

```
cvgmgx1a.1.12.VISM8.a > cnfvismmode 2
WARNING: Available CLI Commands will be changed, do you want to proceed (Yes/No)? yes
INFORMATION: The new 'aal2Trunking' mode has 182 CLI commands.
```

Step 2 To enable AIS suppression, use the **cnfaissuppression** command.

```
mgx.1.12.VISM8.a > cnfaissuppression <enableFlag>
```

Replace *<enableFlag>* with 1 to enable AIS suppression.

```
mgx.1.12.VISM8.a > cnfaissuppression 1
INFORMATION: Successfully Enabled AIS Suppression.
```

If you attempt to enable AIS suppression when it is already enabled, the following message displays:

```
WARNING: AIS Suppression is already enabled.
```

Step 3 To show that AIS suppression has been enabled, use the **dspaissuppression** command.

```
mgx.1.12.VISM8.a > dspaissuppression
AIS Suppression : ENABLED
```

Step 4 To disable AIS suppression, use the **cnfaissuppression** command with the value of 2.

```
mgx.1.12.VISM8.a > cnfaissuppression 2
INFORMATION: Successfully Disabled AIS Suppression.
```

Configure OAM Loop Count

Since an OAM end-to-end loopback failure can still cause line alarms, you must configure the OAM loop count to be longer than the expected duration of the temporary network outage due to a reroute.



Note

The OAM end-to-end loopback functionality has not been changed.

Step 1 Ensure that the VISM/VISM-PR is in AAL2 trunking mode.

```
mgx.1.12.VISM8.a > cnfvismmode <2>
```

Step 2 To check the OAM loop count, enter the **dspoamloopcnt** command.

```
mgx.1.12.VISM8.a > dspoamloopcnt
```

The loop count is displayed with the default value of 5 seconds.

```
OAM Loopback Cell Timeout Count:      5
```

Step 3 To configure the OAM loop count, enter the **cnfoamloopcnt** command.

```
mgx.1.12.VISM8.a > cnfoamloopcnt <count>
```

Replace *<count>* with the number of seconds in the range 5 to 60.

Display Alarms

With this feature, VISM/VISM-PR discovers network outages via OAM end-to-end loopback failures. Lost OAM loopback cells can be monitored by using the following command:

```
dsponcnt <LCN>
```

The following example shows the output:

```
mgx.1.12.VISM8.a > dsponcnt 131
ChanNum:                131
Chan State:              alarm
Chan XMT ATM State:     Sending FERF OAM
Chan RCV ATM State:     Receiving AIS OAM
```

```

Chan Status Bit Map:          0x2
OAM Lpb Lost Cells:          20
AAL2 HEC Errors:             2
AAL2 CRC Errors:             0
AAL2 Invalid OSF Cells:      1
AAL2 Invalid Parity Cells:    0
AAL2 CPS Packet Xmt:         118467937
AAL2 CPS Packet Rcv:         116227849
AAL2 Invalid CID CPS:        0
AAL2 Invalid UUI CPS:         0
AAL2 Invalid Len. CPS:       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

```

OAM AIS and FERF cells that are transmitted and received are accounted for via counters. With this feature, an alarm is not generated on the line.

The following examples show alarms after an OC-3 failure. AIS alarm cells are received, and FERF cells are transmitted in response.

- Use the **dspsarcnt** <LCN> command to show the number of AIS, FERF, OAM end-to-end loopback, and total cells that are received and transmitted.

```

mgx.1.12.VISM8.a > dspsarcnt 131

                SarShelfNum:      1
                SarSlotNum:       5
                SarChanNum:       131
                Tx                Rx
                -----
Total Cells:    406656            333840
Total CellsCLP: 0                 0
Total CellsAIS: 0                 13
Total CellsFERF: 12                0
Total CellsEnd2EndLpBk: 85         69
Total CellsSegmentLpBk: 0          0
RcvCellsDiscOAM: 0                 0

```

- Use the **dsppalm -ds1** <LineNum> command to show the line alarm state with the AIS suppression feature. The `LineAlarmState` does not show any alarms. With the alarm suppression feature, no alarms are generated on the line in response to the OAM AIS alarm received.

```

mgx.1.12.VISM8.a > dsppalm -ds1 1
LineNum:          1
LineAlarmState:   No Alarms
LineStatisticalAlarmState: Alarm(s) On --
                    SEFS24hrAlarm
                    UAS24hrAlarm

```

**Note**

Once the configured number of OAM end-to-end loopback cells are lost, the **dsppalm** status shows that the lines are in alarm.

Without the AIS suppression feature, the LineAlarmState shows XmtAIS and RcvRAI

```
mgx.1.12.VISM8.a > dspalm -ds1 1

LineNum: 1
LineAlarmState: Alarm(s) On --
                RcvRAI
                XmtAIS
LineStatisticalAlarmState: Alarm(s) On --
                SEFS24hrAlarm
                UAS15minAlarm
                UAS24hrAlarm
```

Alarms not Suppressed

Alarm suppression does not affect the following AAL2 type 3 packet alarms (transmitted and received per CID):

- external AIS
- external RDI
- connection AIS
- connection RDI

These alarms allow the line alarms that are received due to a T1/E1 failure to be propagated to the remote end.

Upgrade Notes

The default for AIS suppression is disabled. If you upgrade to Release 3.2 from a release with AIS suppression enabled, you must re-enable AIS suppression.

After the upgrade, enable AIS suppression using the **cnfaissuppression** command.

G.729a Codec with 20 ms

VISM/VISM-PR cards contain a new custom profile to support G.729a with 20 milliseconds (ms) packetization period.

The new Custom profile type, 210, supports upspeeding from G.729a with 20 ms packetization period to other codecs, for example, G.711 MU/A law.

G.729a with 20 ms packetization period is supported for AAL2 trunking and applies to templates 1, 3, and 4 on the VISM/VISM-PR cards.

The following commands have been modified to support this feature. This list includes examples of using these commands to configure this feature. For more information about these commands and their syntax, see [Chapter 7, “CLI Commands.”](#)

**Note**

The commands in this list are linked to the corresponding sections in [Chapter 7, “CLI Commands.”](#)

- **addcid**

The following example creates a CID for endpoint 10, LCN 140, with a CID number of 10. The codec type is 4 (G.729a), profile type is 3 (Custom), profile number is 210 (Custom), VAD is 1 (on), VAD holdover is 300 milliseconds, echo cancelling is 1 (on), type 3 redundancy is 1 (on), CAS transport is 1 (on), DTMF transport is 1 (on), idle code suppression is 1 (on) and the packet period is 20 milliseconds.

```
mgx.1.14.VISM8.a > addcid 10 140 10 4 3 210 1 300 1 1 1 1 1 20
```

- **cnfprofparams**

The following example shows that the Custom profile type, profile number 210, is configured with the midrange preference level of 4:

```
mgx.1.14.VISM8.a > cnfprofparams 3 210 4
```

- **cnfprofelemvoice**

The following example shows that the Custom profile type, profile number 210, is configured with the G.729a codec type (4), a packetization period of 20 ms, and VAD enabled:

```
mgx.1.14.VISM8.a > cnfprofelemvoice 3 210 4 20 2
```

- **cnfprofelemvbd**

For voice band data (VBD) the following example shows that the Customer profile type, profile number 210, is configured with the G.729a codec type (4), and a packetization period of 20- ms.

```
mgx.1.14.VISM8.a > cnfprofelemvoice 3 210 4 20
```

- **dspprofparams**

The following example shows the profile elements and preferences for all profiles, including the results of the **cnfprofparams** and **cnfprofelemvoice** commands.

```
mgx.1.14.VISM8.a > dspprofparams

- - - - -
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
- - - - -
Profile Type           : ITU
Profile Number        : 2
Profile Preference     : 3
Voice Profile Codec    : G.711u
Voice Profile Packetization-period(ms) : five
Voice Profile SID      : sidGenric
VBD Profile Codec     : G.711u
VBD Profile Packetization-period (ms) : five
```

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

```

- - - - -
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
- - - - -

```

```

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

```

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

```

- - - - -
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
- - - - -

```

```

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

```

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

```

- - - - -
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
- - - - -

```

```

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

```

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

```

- - - - -
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
- - - - -
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

```

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

```

- - - - -
Profile Type           : Custom
Profile Number        : 210
Profile Preference    : 4
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

```

- **dspaal2profile**

The following example shows that the data for AAL2 profile type 3 and profile number 210 is displayed:

```
mgx.1.14.VISM8.a > dspaal2profile 3 210
```

UUI Codepoint Range	Packet Length (octets)	Codec	SID	M	Packet Time (ms)	Seq. No. Interval (ms)
0-7	40	PCMU	No SID	1	5	5
0-7	40	PCMA	No SID	1	5	5
8-15	40	G726-32	No SID	2	10	5
8-15	20	G729ab	SID729	2	20	5
8-15	20	G729a	No SID	2	20	5

E1 CAS Idle Code

When VISM/VISM-PR is configured for E1 channel associated signaling (CAS) transport in AAL2 trunking mode, the default idle signaling pattern is 13.

This section contains the following topics:

- [Configure the Idle Code, page 1-45](#)
- [CAS Code Sent When Adding a CID, page 1-48](#)
- [CAS Code Sent When Deleting a CID, page 1-49](#)
- [Upgrade Notes, page 1-49](#)

Configure the Idle Code

You can change the default idle ABCD CAS code on endpoint basis on the VISM/VISM-PR E1 cards. ABCD refers to the robbed-bit signaling bits that are sent in CAS lines.

-
- Step 1** Log in to your VISM/VISM-PR card.
 - Step 2** Ensure that you are in the AAL2 trunking mode.
 - Step 3** To configure the idle CAS code as 4, enter the **cnfcascode** command.



Note The **cnfcascode** command can be used only on existing endpoints.

```
mgx.1.14.VISM8.a > cnfcascode <endpt_num> <idle_code> <seized_code> [endpts_num]
```

Replace the arguments with the values listed in the next table.

The following example shows the idle CAS code as 4 on endpoints 1–6. Seized code is not used for AAL2 trunking.

```
mgx.1.14.VISM8.a > cnfcascode 1 4 6 5
```

NOTE:In order for VISM card to use the new Idle Code :
Either Reset the Card OR re-add the Cids

Table 1-16 Parameters for the *cnfcascode* Command

Parameter	Description
<i>endpt_num</i>	<p>Endpoint number which is to be configured with CAS idle code and seized code. Value is one of the following ranges:</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 <p>Note If the second (optional) <i>endpts_num</i> argument is specified, this argument value is the first endpoint in a consecutive number of endpoints.</p>
<i>idle_code</i>	<p>Four-bit idle code. Value can be in the range from 0–15. This argument represents the four signaling bits—A, B, C, and D—in binary, as bits 3, 2, 1, and 0 respectively, with bit 3 the most significant.</p>

Table 1-16 Parameters for the *cnfcascode* Command (continued)

Parameter	Description
<i>seized_code</i>	Four-bit seized code. Value can be in the range from 0–15. This arguments represents the four signaling bits—A, B, C, and D—in binary, as bits 3, 2, 1, and 0 respectively, with bit 3 the most significant.
<i>[endpts_num]</i>	<p>(Optional) Total consecutive range of endpoints on which the cnfcascode command is applied. Value is from one of the following ranges:</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1

Step 4 To show the configured idle code on endpoint 1, enter the **dspds0cascode** command.

```
mgx.1.14.VISM8.a > dspds0cascode <line_number> <ds0_number>
```

Replace the *line_number* argument with a value 1–8 and *ds0_number* with a value 1–24 for T1 lines or 1–31 for E1 lines.

The following example show the idle CAS code on endpoint 1 that you configured in [Step 3](#).

```
mgx.1.14.VISM8.a > dspds0cascode 1 1
```

```
Ds1 line number:          1
ds0 number:              1
Ds0 If Index:           1
Ds0 Idle Code :         4
Ds0 Seized Code:        6
```

Step 5 To view the status of all the DS0s on a line, enter the **dsplndsx0s** command.

```
mgx.1.14.VISM8.a > dsplndsx0s <line_number>
```

The following example shows the idle code you configured using the **cnfcascode** command on line 2.

```
mgx.1.14.VISM8.a > dsplndsx0s 1
```

DS0 Index	If Signaling	Robbed Bit	Idle Code	Seized Code	EndPt Num	If Type	Variant Name	Cadence OnTime	Cadence OffTime
1		False	4	6	1	bearer		75	75
2		False	4	6	2	bearer		75	75
3		False	4	6	3	bearer		75	75
4		False	4	6	4	bearer		75	75
5		False	4	6	5	bearer		75	75
6		False	4	6	6	bearer		75	75
7		False	2	4	7	bearer		75	75
8		False	2	4	8	bearer		75	75
9		False	2	4	9	bearer		75	75
10		False	2	4	10	bearer		75	75
11		False	13	15	-1	-		75	75
12		False	13	15	-1	-		75	75
13		False	13	15	-1	-		75	75
14		False	13	15	-1	-		75	75
15		False	13	15	-1	-		75	75
16		False	13	15	-1	-		75	75
17		False	13	15	-1	-		75	75
18		False	13	15	-1	-		75	75
19		False	13	15	-1	-		75	75
20		False	13	15	-1	-		75	75
21		False	13	15	-1	-		75	75
22		False	13	15	-1	-		75	75
23		False	13	15	-1	-		75	75
24		False	13	15	-1	-		75	75
25		False	13	15	-1	-		75	75
26		False	13	15	-1	-		75	75
27		False	13	15	-1	-		75	75
28		False	13	15	-1	-		75	75
29		False	13	15	-1	-		75	75
30		False	13	15	-1	-		75	75
31		False	13	15	-1	-		75	75

Step 6 To update the new CAS code on previously existing endpoints, reset the VISM/VISM-PR card.

CAS Code Sent When Adding a CID

If the local end CID is added first, the VISM/VISM-PR continues to provide the configured idle code on the DS0 (TDM interface) until the remote AAL2 CID is added and starts sending the CAS signaling traffic over the ATM network.

If the local end CID is added after the remote end CID is added, the VISM/VISM-PR is already receiving a CAS signaling pattern from the remote AAL2 CID. The VISM/VISM-PR begins propagating the received signaling code on the line side (TDM interface).



Note

It is assumed the AAL2 CIDs that are added have CAS transport enabled on them. If CAS transport is disabled, the CAS signaling bits do not propagate end-to-end.

CAS Code Sent When Deleting a CID

If the remote end AAL2 CID is deleted first, the VISM/VISM-PR continues to send the last received CAS signaling pattern from the remote CID to the line side (TDM interface).

If the local end CID is deleted first, the VISM/VISM-PR sends the idle code (configured on this endpoint) to the line side (TDM interface).

Upgrade Notes

Before upgrading from 3.1.x to 3.2 configure the CAS code on the endpoints on the previous release. This step ensures that the configured idle code is carried over to the upgraded VISM/VISM-PR and used on all the endpoints.

If you install a new VISM/VISM-PR card with Release 3.2, and you want to configure a new CAS code on some endpoints, the new idle code is used on the CIDs which are added after configuring the CAS code.



Overview of the VISM and VISM-PR Cards

This chapter provides a general introduction to VISM/VISM-PR cards and describes the hardware and software modules. The following topics are described:

- “Card Types” section on page 2-1
- “Card Service Types” section on page 2-5
- “Card Physical Characteristics” section on page 2-5
- “Card Features” section on page 2-6
- “Redundancy and Bulk Distribution” section on page 2-8
- “Operating Modes” section on page 2-10

The VISM/VISM-PR card, in combination with a Cisco MGX 8000 Series platform, enables telephone calls on conventional time-division multiplexed (TDM) voice circuits to be transported over an Asynchronous Transfer Mode (ATM) packet-switched and VoIP networks.

The VISM card is a single height card designed to operate in the following platforms:

- Cisco MGX 8850 PXM1-based, wide area switch
- Cisco MGX 8250, edge concentrator
- Cisco MGX 8230, edge concentrator

The VISM-PR card is a single height card designed to operate in the following platforms:

- Cisco MGX 8850 PXM1-based, wide area switch
- Cisco MGX 8250, edge concentrator
- Cisco MGX 8230, edge concentrator
- Cisco MGX 8830
- Cisco MGX 8850 PXM45-based
- Cisco MGX 8850 PXM1E-based



Note

VISM/VISM-PR is not supported on the Cisco MGX 8260 switch.

Card Types

VISM and VISM-PR cards are installed in Cisco MGX 8000 Series switches as front cards and their associated back cards—card sets.

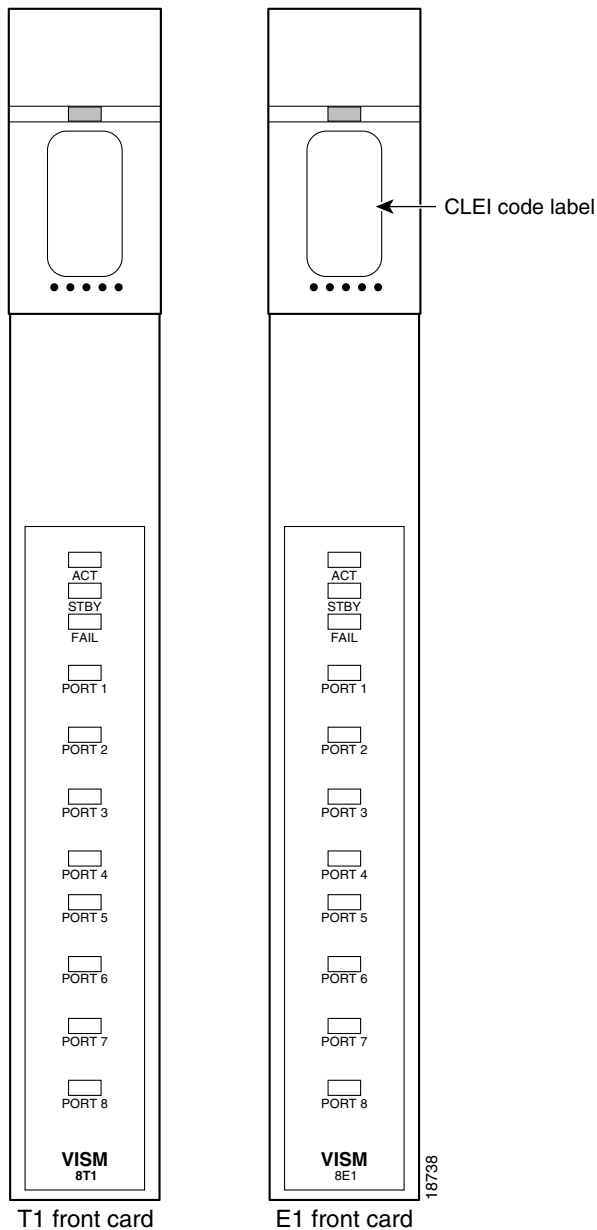
VISM has the following two types of front cards (see [Figure 2-1](#)):

- AX-VISM-8T1—Supports up to eight T1 lines carrying digitized voice.
- AX-VISM-8E1—Supports up to eight E1 lines carrying digitized voice.

**Note**

Using the Service Resource Module (SRM) and the 1:N redundancy features, other physical configurations are supported. See the [“Card Features”](#) section on page 2-6 for more details.

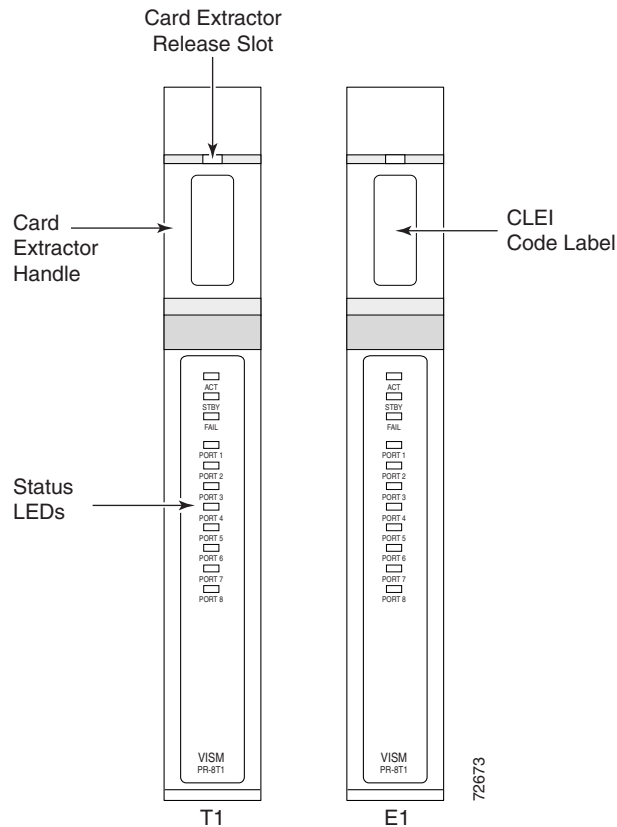
Figure 2-1 VISM T1 and E1 Front Cards



VISM-PR has the following two types of front cards (see [Figure 2-2](#)):

- MGX-VISM-PR-8T1—Supports up to eight T1 lines carrying digitized voice.
- MGX-VISM-PR-8E1—Supports up to eight E1 lines carrying digitized voice.

Figure 2-2 VISM-PR T1 and E1 Front Cards



The VISM and VISM-PR front cards have the same associated back cards.

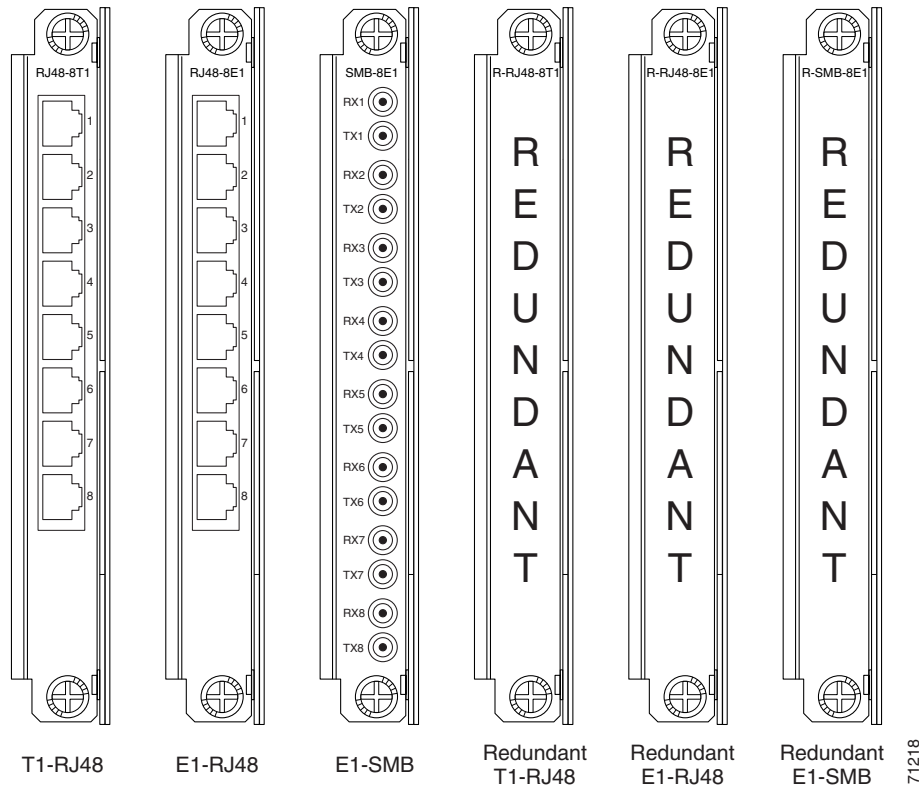
VISM/VISM-PR has the following two types of T1 back cards (see [Figure 2-3](#)):

- AX-RJ48-8T1—Supports eight T1 lines using RJ-48 connectors; use with a T1 front card.
- AX-R-RJ48-8T1—Supports eight T1 lines; use with a redundant T1 front card.

VISM/VISM-PR has the following four types of E1 back cards (see [Figure 2-3](#)):

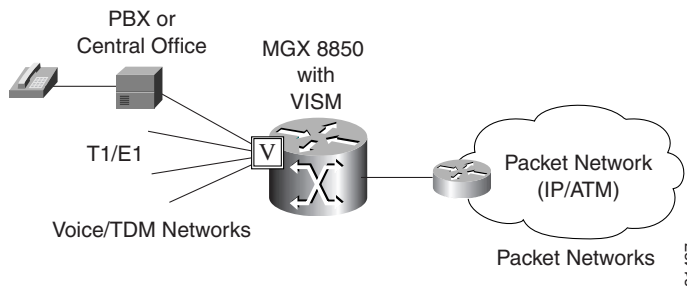
- AX-RJ48-8E1—Supports eight E1 lines using RJ-48 connectors; use with an E1 front card.
- AX-R-RJ48-8E1—Supports eight E1 lines; use with a redundant E1 front card.
- AX-SMB-8E1—Supports eight E1 lines using SMB connectors; use with an E1 front card.
- AX-R-SMB-8E1—Supports eight E1 lines; use with a redundant E1 front card.

Figure 2-3 VISM T1 and E1 Back Cards



The VISM or VISM-PR card and MGX 8000 Series switch combination provides an interface, or voice gateway, between conventional TDM networks and packet-switched networks (see Figure 2-4).

Figure 2-4 Cisco MGX 8850 and VISM as a Voice Gateway



Connection to the packet network is performed by Cisco MGX 8000 Series switch Processor Module cards—PXM1, PXM1E, and PXM45—which communicate with a VISM/VISM-PR card through the switch midplane cellbus. See the documents listed in “[Related Documentation](#)” section on page xxx for more information on the MGX 8000 Series switch midplane cellbus.

Card Service Types

VISM/VISM-PR cards are configured with the following service types:

- Constant bit rate (CBR)



Note CBR is not supported with a combination of a PXM1 with either an RPM or external router.

- Variable bit rate real time (rt-VBR)
- VBR non-real time (nrt-VBR)

VISM-PR card connections with the RPM-PR card requires the VBR (NRT) 3 service type on the PXM1E and PXM45 platforms.

If you are using a VISM-PR card in combination with a PXM1E, PXM45, or RPM-PR card, you must use the VBR (NRT) 3 selection when adding a connection.

The following connection service types can be configured with Release 3.2:

- VBR (RT) 2
- VBR (RT) 3
- VBR (NRT) 2

Card Physical Characteristics

VISM/VISM-PR cards are equipped with the following:

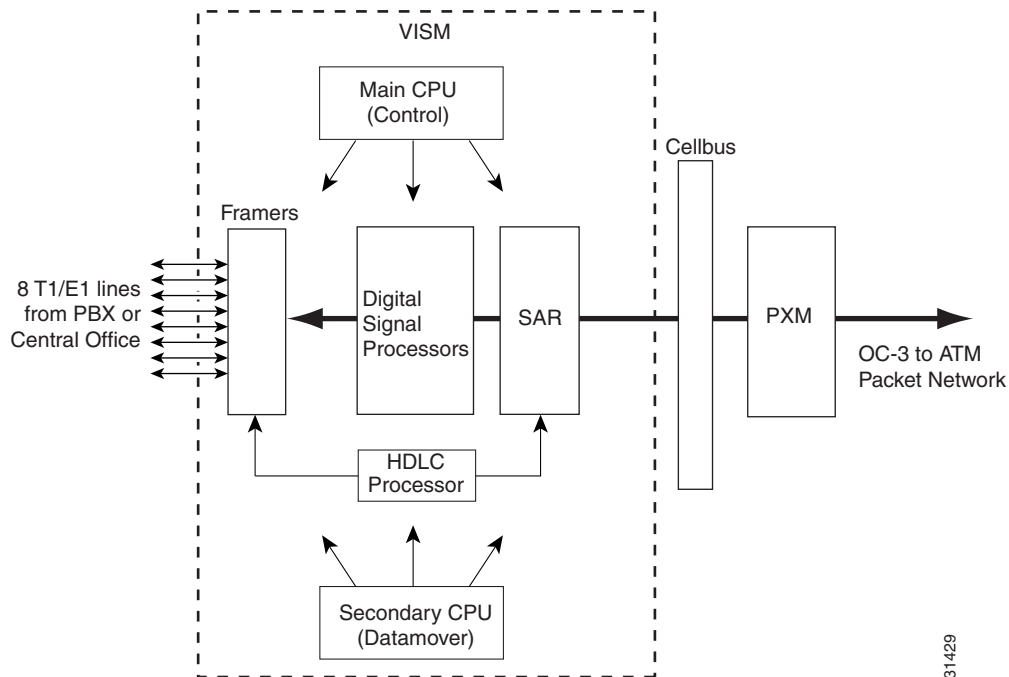
- Eight T1 or E1 ports
- Digital signal processors (DSPs)
- High-level data link control (HDLC) framer
- Broadband interface to the packet network

VISM/VISM-PR card architecture provides the following:

- Flexibility that allows the incorporation of new or improved technology as it becomes available.
- Application flexibility that allows VISM/VISM-PR to be used in a range of situations that provide interoperability with a wide variety of equipment types.
- Modularity that allows equipment to be purchased and installed as it is needed for scalability.

Figure 2-5 shows a simplified diagram of the VISM/VISM-PR architecture and major components.

Figure 2-5 VISM Card Block Diagram



The card is broadly divided into a TDM side and an ATM side. The T1/E1 framers, the array of DSPs, and the HDLC processor support the TDM side. The ATM adaptation layer (AAL) and the segmentation and reassembly (SAR) sections support the ATM side.

VISM is under the control of two independent processors. The main processor performs the control tasks—configuration, call setup and teardown, and management. The second processor, the data mover, handles the moving and processing of the voice and voiceband data traffic through the system.

The VISM card itself contains no ports for the connection of management stations. Workstations, PCs, or terminals used to manage VISM must be attached via the PXM card which provides both serial EIA/TIA-232 and Ethernet ports.

Card Features

VISM/VISM-PR cards process high-density digital voice circuits and provide dynamic compression, echo cancellation, dejittering, silence suppression, and packetization. The VISM/VISM-PR card uses the following features which you can configure:

- Eight standard T1 or E1 interfaces with the following line coding:
 - Bipolar 8-zero substitution (B8ZS)—for T1
 - Alternate mark inversion (AMI)—for T1
 - High density bipolar 3 (HDB3)—for E1

- Voice over ATM (VoATM) using AAL2 cells—No Logical Link Control/Subnetwork Access Protocol (LLC/SNAP) encapsulation.



Note Multiplexing is not supported for AAL2 SVCs.

- VoIP using AAL5 cells to RFC 1889.
- Extended Superframe (ESF) framing with or without cyclic redundancy check (CRC).
- Pulse code modulation (PCM) A/Mu law codecs.
- Programmable 24, 32, 48, 64, 80, 96, 112, 128 ms tail delay near end ECAN.
- Voice compression with the following standards:
 - G.711
 - G.726-16k
 - G.726-24k
 - G.726-32k
 - G.726-40k
 - G.729a
 - G.729ab
 - G.723.1-H
 - G.723.1a-H
 - G.723.1-L
 - G.723.1a-L



Note The G.723.1 codecs are not supported in combination with the VISM card. The G.723.1 codecs are supported with the VISM-PR card.

- Nx64 clear channel (N = 1 only) support.
- Voice activity detection (VAD) and comfort noise generation (CNG) using variable threshold energy (Cisco proprietary).
- Call agent Simple Gateway Control Protocol (SGCP) Version 1.0, 1.1, 1.5, SGCP 1.1+, 1.5, Media Gateway Control Protocol (MGCP) 0.1 and 1.0, and Trunking Gateway Control Protocol (TGCP) 1.0.
- Backhauling channel associated signaling (CAS) to a call agent using xGCP (backhauling can be accomplished with any supported SGCP and MGCP protocol).
- Backhauling Primary Rate Interface (PRI) signaling via Reliable User Datagram Protocol (RUDP) to a call agent.
- Common channel signaling (CCS) transport across an AAL5 trunk.
- Fax and modem VoIP bearer transmissions.
- Dual (redundant) virtual circuits across the packet network.
- Full continuity testing (COT). Supports origination and terminating loopback and transponder COT between VISM and the central office on the TDM side.

- Loop timing, which can be used as the master clock for the entire MGX 8000 Series platform and local clock.
- Line loopback (DS1) toward the TDM lines.
- Channel loopback (DS0) toward both the TDM lines and the ATM network.
- Redundant alarm indication (RAI) and alarm indication signal (AIS) alarms.
- DS0 CCS channel extraction and assignment to the TDM signaling function.
- 1:N cold redundancy using subrate multiplexing SRM-3T3 (bulk mode support for T1 lines only) and SRM-E (for OC3) capabilities. In switching modes, calls do not persist during switchover. In trunking modes, calls are persistent with minimal impact on traffic.
- Graceful shutdown of ongoing voice calls when the VISM/VISM-PR is taken out of service for maintenance or other reasons. Forced shutdown is also supported.

**Caution**

A forced shutdown of the VISM or VISM-PR card might result in dropped calls.

Redundancy and Bulk Distribution

With or without bulk distribution, redundancy allows for the spare VISM card to automatically take over the functions of a failed VISM card.

After a VISM/VISM-PR card switches from standby to active, executing the **dspecds** command on the PXM shows the new active and standby cards. For example, the VISM card in slot 1.1 went from standby to active:

```
8850.1.8.PXM.a > dspecds
```

Slot	CardState	CardType	CardAlarm	Redundancy
1.1	Active	VISM-8T1	Clear	Covering slot 14
1.2	Reserved	VISM-8T1	Clear	
1.3	Active	VISM-8T1	Clear	
1.4	Empty		Clear	
1.5	Active	VISM-PR-8T1	Clear	
1.6	Empty		Clear	
1.7	Standby	PXM1-OC12	Clear	
1.8	Active	PXM1-OC12	Minor	
1.9	Empty		Clear	
1.10	Empty		Clear	
1.11	Empty		Clear	
1.12	Reserved	VISM-8T1	Clear	
1.13	Active	VISM-PR-8T1	Clear	
1.14	Standby	VISM-8T1	Clear	Covered by slot 1
1.15	Standby	SRM-3T3	Clear	
1.16	Active	SRM-3T3	Clear	
1.17	Empty		Clear	
1.18	Active	VISM-8T1	Major	
1.19	Empty		Clear	

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

However, when you change cards to the new active VISM/VISM-PR card using the `cc` command, the display shows the active card as standby.

```
8850.1.8.PXM.a > cc 1
```

```
(session redirected)
```

```
8850.1.1.VISM8.s >
```

When the failed card is repaired, switching back to the repaired card is not automatic. You must manually change the repaired card back to the active state with the command line interface.

**Note**

1:1 redundancy using Y-cables is not supported by VISM.

Redundancy for VISM/VISM-PR cards with or without bulk distribution can be provided through the Service Redundancy Module (SRM) and SRM-E.

Redundancy for VISM/VISM-PR is also provided by Media Gateway Controller (MGC) redundancy groups. VISM/VISM-PR redundancy is cold redundancy in which ongoing calls do not persist during switchover in switching modes. In trunking modes, calls are persistent with minimal impact on traffic.

**Note**

SRM-E is supported with PXM1 and PXM1E cards only.

See [Table 2-1](#) for the support level for 1:N Service Module Redundancy (N = 1 through 11).

Table 2-1 Service Module Redundancy

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

**Note**

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

Redundancy with Bulk Distribution

Redundancy with bulk distribution requires a spare VISM/VISM-PR card to be installed. The system uses the three T3 ports of the SRM back card instead of the normal T1 lines on the VISM/VISM-PR back cards.

**Note**

VISM cards in bulk distribution mode do not require back cards.

The TDM voice data transmitted or received over the T3 ports are distributed to the VISM/VISM-PR card as if they had been received over T1 back card ports in the normal manner. This feature reduces the number of physical lines required to support VISM, but requires external equipment to multiplex and demultiplex the T1 data onto the T3 lines.

Redundancy without Bulk Distribution

Redundancy without bulk distribution also requires a spare VISM/VISM-PR card equipped with a VISM/VISM-PR T1 redundant back card. In this arrangement the VISM/VISM-PR cards require and use their normal T1 back cards.

Redundancy can also be configured at the ATM permanent virtual circuits (PVCs) level. Two separate PVCs can be set up, each using a different PXM physical port and each routed to a separate router. Configure one PVC as active and the other as standby. Both PVCs are monitored by heartbeat OAM F5 loopback cells every 200 ms. If three consecutive OAM cells are lost, the PVC fails, and only the remaining PVC is active. A PVC recovers automatically when five consecutive OAM cells are received while the PVC remains in standby mode (no automatic fallback to active state is provided).

Control and bearer PVCs can be set up with a redundant PVC.

Operating Modes

The VISM/VISM-PR card performs in the following operating modes:

- Voice over IP (VoIP) switching/VoIP trunking
- AAL2 trunking
- AAL1 switching
- Switched AAL2 SVC
- Switched AAL2 PVC
- VoIP and AAL1 SVC
- VoIP trunking/AAL2 trunking

To support the operating modes, the VISM/VISM-PR card supports connections to the following three major interfaces:

1. Voice TDM network
2. ATM network
3. Call agent—signaling (either CAS or CCS but not both) and call control
4. IP network via RPM

In VoIP switching, switched AAL2 PVC, AAL1 SVC, and AAL2 SVC interfaces are always present and active. In AAL2 trunking mode, the interface to the call agent interface is not present, and the only active interfaces are to the TDM network and the ATM network.

The operating modes, combined with features you configure, can be used by VISM/VISM-PR cards in the following telephony applications:

- Provide many of the functions of a tandem (Class 4) switch. VISM/VISM-PR can be used to replace, or partially off load, a tandem switch by directing calls over a packet network rather than the conventional voice TDM network.

- Concentrate voice and data user services onto a single broadband circuit for transmission over the packet network. In this application, VISM/VISM-PR performs as a front end to a voice gateway.
- Use the VISM/MGX combination to concentrate voice (and fax/modem voiceband data) user services over a preprovisioned AAL2 trunk. VISM/VISM-PR passes bearer and signaling data across a packet network and does not perform call setup and teardown functions.

VoIP Switching and Switched AAL2 PVC Operating Modes

In VoIP switching mode and switched AAL2 PVC mode, VISM/VISM-PR operates under the control of a call agent to set up and tear down calls. When a call is set up, VISM/VISM-PR transports voice payloads over an ATM network to the called station destination. VISM/VISM-PR performs either as a voice gateway or as a multiservice access front end to a voice gateway.

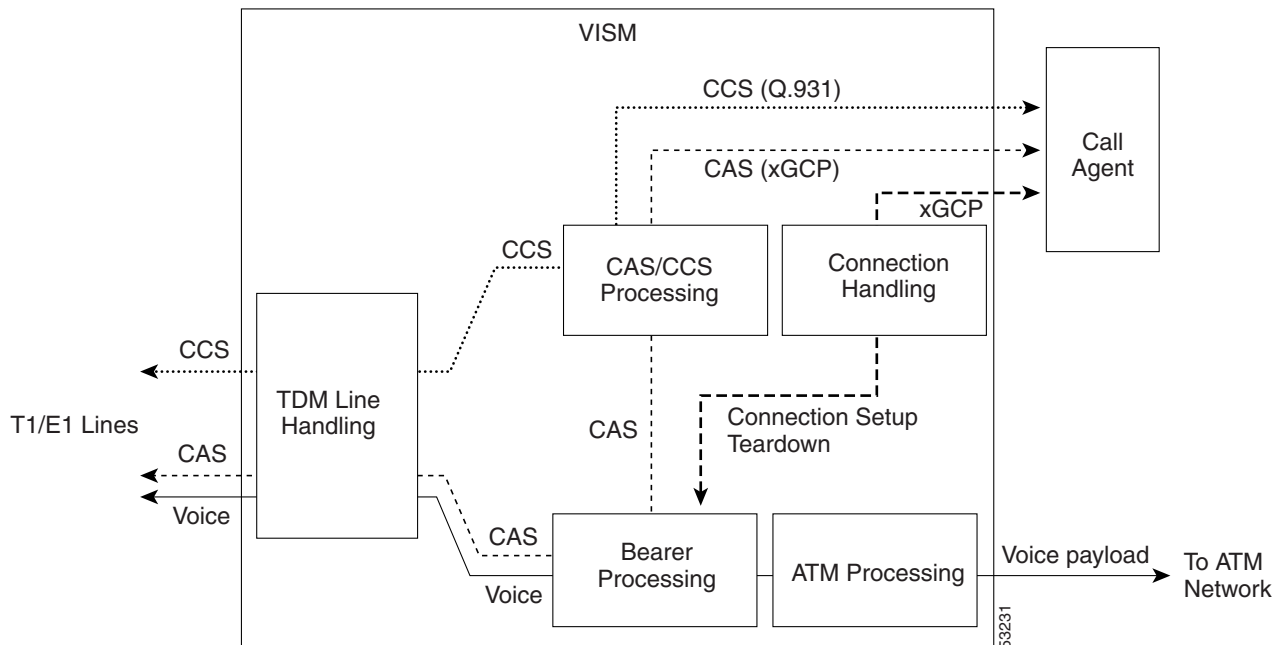


Note

This document refers to the device that provides the interface between VISM/VISM-PR and the telephone Signaling System 7 (SS7) as a call agent. Other terms that describe the same device are Virtual Switch Controller, Media Gateway Controller, and Gatekeeper.

Figure 2-6 shows the major functional blocks and interfaces for the VoIP switching and switched AAL2 PVC operating modes.

Figure 2-6 VISM Block Diagram for VoIP Switching and Switched AAL2 PVC Operating Modes



The CAS signaling path on the TDM side is embedded in the voice stream but is separated at the bearer processing function. The CAS signaling then joins the CCS signaling path for CAS/CCS processing and is backhauled to the call agent. The path between the call agent and bearer processing, via a connection handling function, is for call setup and teardown.

Voice TDM Network Interface

The voice payload path is shown as a solid line along the bottom of [Figure 2-6](#). All external TDM streams arrive and depart on the T1/E1 lines. Depending on the application, these streams consist of voice bearer channels (with or without CAS signaling) and separate CCS channels (if CCS signaling is used). The TDM line handling function provides the physical layer interface, which includes framing, line codes, clocking, loopbacks, physical alarms, and so forth. Bearer channels, including CAS, are sent to the bearer processing function. CCS channels are sent to the CAS/CCS processing function.

Further processing of the bearer channels is performed by the DSPs. This processing provides echo cancelling, compression, A/Mu law conversion, silence suppression, and fax/modem handling. If CAS signaling is present, signaling bits are extracted at the DSP stage and sent to the CAS/CCS processing function.

ATM Network Interface

The ATM processing function receives the processed DS0 voice streams and prepares them for transport over a packet network. The voice streams are divided into specific sample periods (for example, 5 ms or 10 ms) and formatted into service specific convergence sublayer (SSCS) packets appropriate for the method of transport over the ATM network. The available transport methods are VoIP (using AAL5) and voice over AAL2. Processing of the ATM packets further segments the voice payload into ATM cells for transport over the network using a SONET port on the PXM card.

Call Agent Interface

The call agent interface consists of CAS signaling or CCS signaling and call control. The path between the call agent and bearer processing, via a connection handling function, is for call setup and teardown.

The CAS signaling path on the TDM side is embedded in the voice stream (bearer DS0s) and is separated at the bearer processing function. The CAS signaling (robbed bits, digits, and tones) is passed to the CAS/CCS processing function where it is passed (backhauled) to the call agent under the control of the call agent. The mechanism for communicating between VISM/VISM-PR and the call agent is a gateway control protocol:

- MGCP
- TGCP
- SGCP
- SRCP

The separate CCS signaling path channels are passed to the CAS/CCS processing function and backhauled to the call agent. The CCS signaling is transported as ISDN Q.931 messages both on the TDM side and on the call agent side. On the TDM side, the messages are carried in the Q.921 layer protocol (which terminates at the VISM/VISM-PR card). On the call agent side, communication with the call agent consists of Q.931 messages encapsulated in RUDP/UDP/IP packets. The Q.931 connection is terminated at the call agent and not at the VISM/VISM-PR card.

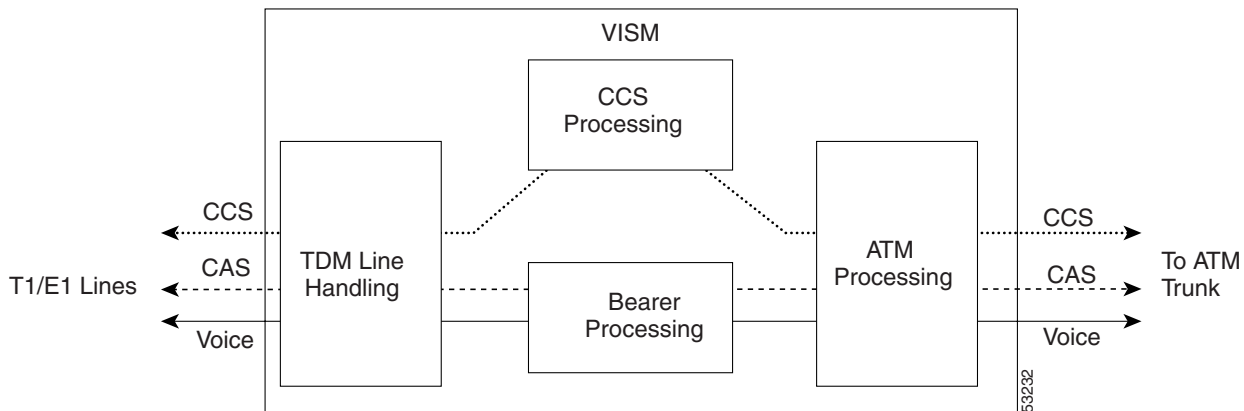
The call control path uses MGCP, TGCP, SGCP, and SRCP for call setup and teardown. Because signaling and call control are so intertwined, both call control and CAS use the same path and protocol for the VISM/VISM-PR card-to-call agent communications.

AAL2 Trunking Operating Mode

In the AAL2 trunking operating mode, the VISM/VISM-PR card serves as an access to one or more trunks to preprovisioned locations. VISM/VISM-PR can be used at both ends of the trunk or at one end with a compatible device at the other.

In AAL2 trunking mode, VISM/VISM-PR plays no part in call setup and teardown. Other network elements handle call control while VISM/VISM-PR handles voice transport over the trunks. [Figure 2-7](#) shows the major functional blocks for the AAL2 trunking operating mode.

Figure 2-7 VISM Block Diagram for the AAL2 Trunking Operating Mode



The AAL2 trunking mode is less complex than the VoIP switching and AAL2 PVC switched modes because call control is not involved, and a call agent is not needed.

The voice bearer path is treated in the same manner as in the VoIP switching and AAL2 PVC modes, except that only preprovisioned AAL2 PVCs are available for transport of voice over the trunks. The CAS signaling data is transported over the ATM network in the same AAL2 trunk as Type 3 messages. The CCS signaling data is transported over the ATM network in a separate AAL5 PVC.

VoIP Trunking Operating Mode

The Voice over IP (VoIP) trunking feature allows the VISM/VISM-PR to connect to the PBX, or central office digital systems, using T1/E1 digital interfaces. The TDM bit stream is converted into RTP packets, after echo cancellation and compression, and transports it over the IP network.

No call agent is required for setting up and tearing down calls. You must configure the DS0 circuits. The connection between VISM/VISM-PR and the first router is ATM. Then, the connection is IP only. VISM/VISM-PR and the router can have one or multiple PVCs to transport the data. You have the option to configure PVC for bearer or control. If the PVC is configured as bearer and no control PVC exists, then PRI signal traffic and bearer traffic go through this PVC. If you configure separate PVCs for control and bearer, PRI signaling goes through control traffic only. You can modify some of the connection parameters after the PVC is added.

CAS is transported to the far end using a Cisco proprietary format (not NSEs). PRI is transported over RUDP to the far end once the trunk is provisioned between the originating and terminating VISM/VISM-PR.

PRI transport is handled in a way identical to PRI backhaul except that the PRI traffic is sent to remote gateway instead of a call agent. You can configure one line for PRI trunking and another line for PRI backhauling.

You must provision the Link Access Procedure on the D-channel (LAPD) trunk when configuring one line for PRI trunking and another line for PRI backhauling.

You must configure a line number, remote gateway IP address, local UDP port, and remote gateway UDP port, and then open a trunk. You must then configure the D-channel as a trunk or backhaul:

- To configure the D channel as trunk, use the **addlapdtrunk** command prior to the **addlapd** command. If the **addlapd** command has been previously executed for that line, the command is rejected.



Note Two D channels on one line are not supported.

- To configure the D channel as backhaul, use the **addses** command prior to the **addlapd** command. If you do not configure either trunk or session, the **addlapd** command is rejected.

AAL1/AAL2 SVC Operating Mode

Release 3.2 supports the AAL1 and AAL2 switched virtual connection (SVC) operating modes for VISM-PR cards. AAL1 SVC is supported with the G.711 codec and clear channel.



Note

VAD is not supported in combination with AAL1 SVCs. CAS is not supported in combination with SVCs.

AAL2 SVC is supported with the G.711, G.726, G.729a, and G.729ab codecs and profiles 1, 2, 3, 7, 8, 100, 101, 110, and 200.



Note

The AAL1/AAL2 SVC operating modes require you to use a PXM1E or PXM45 in your MGX 8000 Series switch chassis.



Installing VISM/VISM-PR Hardware and Software

This section describes how to install VISM/VISM-PR cards and how to upgrade the VISM/VISM-PR boot code and firmware. The following topics are described:

- [Hardware Installation, page 3-1](#)
- [Software Upgrades, page 3-7](#)

Hardware Installation

You can install VISM/VISM-PR cards in the following combinations:

- Install a VISM/VISM-PR front card and a back card as a pair. The front and back cards must occupy the same slot.
- Install a VISM/VISM-PR front card with no back card. The MGX 8000 Series bulk distribution feature allows this configuration. Access to and from the TDM lines is performed by the Service Resource Module (SRM) and the MGX 8000 Series distribution bus.



Note VISM cards in bulk distribution mode do not require back cards.

- Install a VISM/VISM-PR front card as a redundant card with a redundant back card in the same slot.



Note

VISM/VISM-PR T1 front cards require T1 back cards, and E1 front cards require E1 back cards. Ensure that your configuration meets this requirement.

In each of these configurations, connections to the packet network are made through the MGX 8000 Series cellbus and an OC-3 port located on the MGX 8000 Series PXM card. See the [“Card Physical Characteristics” section on page 2-5](#) for more information on front and back cards.

VISM Cards in MGX 8000 Series Chassis

VISM front and back cards can be installed in the MGX 8000 Series platforms with the following basic guidelines:

- Cisco MGX 8850 (PXM1)—Up to 24 slots can be used for VISM cards.
- Cisco MGX 8250—Up to 24 slots can be used for VISM cards.
- Cisco MGX 8230—Up to eight slots can be used for VISM cards.

The VISM card can be used with the PXM1 processor module.

VISM-PR Cards in MGX 8000 Series Chassis

VISM-PR front and back cards can be installed in the MGX 8000 Series platforms with the following basic guidelines:

- MGX 8250 and MGX 8850 (PXM1 and PXM45)—Up to 24 slots can be used for VISM-PR cards.
- MGX 8230—Up to eight slots can be used for VISM-PR cards.
- MGX 8830—Up to eight slots can be used for VISM-PR cards.

The VISM-PR card can be used with the following processor modules:

- PXM1
- PXM1E
- PXM45

You must install an additional fan tray spacer at the bottom of your MGX 8000 Series switch chassis directly above the intake plenum if you are using the VISM-PR card in combination with the PXM45 card.

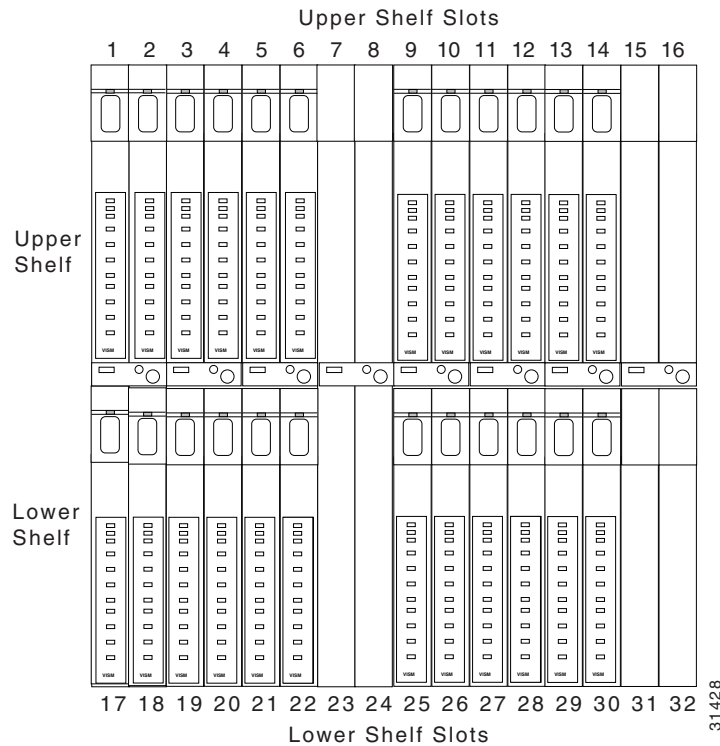
Refer to the *Cisco MGX 8850 (PXM45/PXM1E) Hardware Installation Guide* for step-by-step instructions to install a fan tray.

MGX 8850 and MGX 8250 Chassis

VISM and VISM-PR card installation in a Cisco MGX 8850 (PXM1 and PXM45) or a Cisco MGX 8250 platform consists of installing one front card and one back card (if not using the bulk distribution feature) in either the upper or lower shelf of the chassis.

You can use slots 1 to 6, 9 to 14, 17 to 22, and 25 to 30 to install VISM/VISM-PR cards (see [Figure 3-1](#)).

Figure 3-1 Available Chassis Slots for VISM Cards in the MGX 8850 and MGX 8250—Front View



Note

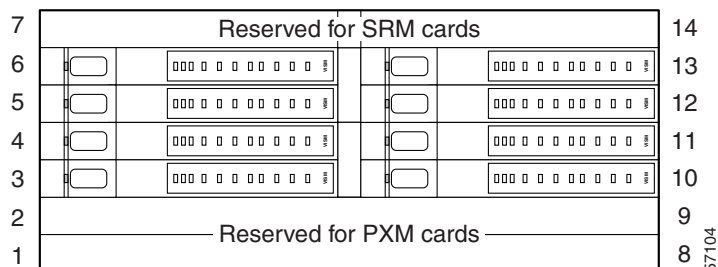
If you use all the available slots, you can configure the Cisco MGX 8850 and Cisco MGX 8250 with up to 24 VISM/VISM-PR cards. However, the two lower shelf cellbuses can each sustain a bandwidth of one OC-3/STM-1 link. This bandwidth limits the number of E1 ports on the lower shelf to 78 when using the G.711 code. The number of VISM/VISM-PR cards is limited to 10.

MGX 8230 and MGX 8830 Chassis

VISM/VISM card installation in a Cisco MGX 8230 platform and VISM-PR card installation in a Cisco MGX 8830 platform consist of installing one front card and one back card (if not using the bulk distribution feature) in either a left or right shelf slot.

You can use slots 3 to 6, and 10 to 13 to install VISM/VISM-PR cards (see [Figure 3-2](#) for an example of VISM cards in an MGX 8230). If you use all the available slots, you can configure the Cisco MGX 8230 or Cisco MGX 8830 with up to eight VISM cards.

Figure 3-2 Available Chassis Slots for VISM Cards in the Cisco MGX 8230—Front View



Installing VISM and VISM-PR Front and Back Cards

This section describes the following hardware installation procedures:

1. [Installing a VISM or VISM-PR Front Card](#)
2. [Installing a VISM or VISM-PR Back Card](#)
3. [Connecting Cables to Cards](#)

Installing a VISM or VISM-PR Front Card

Complete the following instructions to install a VISM or VISM-PR front card:

-
- Step 1** Position the rear card guides over the appropriate slot in the chassis.
- Step 2** Gently slide the card all the way into the slot and press the insertion/extractor lever until it snaps into the vertical, Cisco MGX 8250 or Cisco MGX 8850 (PXM1 and PXM45), or horizontal (Cisco MGX 8230 or Cisco MGX 8830) position.



Caution

The card should slide in and out with only slight friction on the EMI gaskets on the adjacent board. Do not use force. Investigate any binding.

Installing a VISM or VISM-PR Back Card

Complete the following instructions to install a VISM or VISM-PR back card:

-
- Step 1** Ensure that the two extractor levers are at the “in” position.
- When you insert the card into the slot, the levers should be vertical or horizontal along the line of the back card.
- Step 2** Position the rear card guides over the appropriate slot in the chassis.

- Step 3** Gently slide the card all the way into the slot.
- Step 4** Tighten the two captive screws on the back card's faceplate.
- Step 5** Tighten the upper and lower screws to prevent misalignment of the card.



Note Do not overtighten the screws. Tighten them only enough to secure the card.

Connecting Cables to Cards

After you install the VISM/VISM-PR front and back cards, connect the T1 or E1 cables to the RJ-48 or SMB connectors on the back cards. The T1 and E1 cables connect the eight ports on the back cards to the voice T1 or E1 lines. The T1 lines use RJ-48 connectors. The E1 lines use either RJ-48 or SMB connectors.



Note In all text references to cables, “transmit” refers to a cable used for data moving away from the VISM/VISM-PR card, and “receive” refers to a cable used for data moving toward the VISM/VISM-PR card.

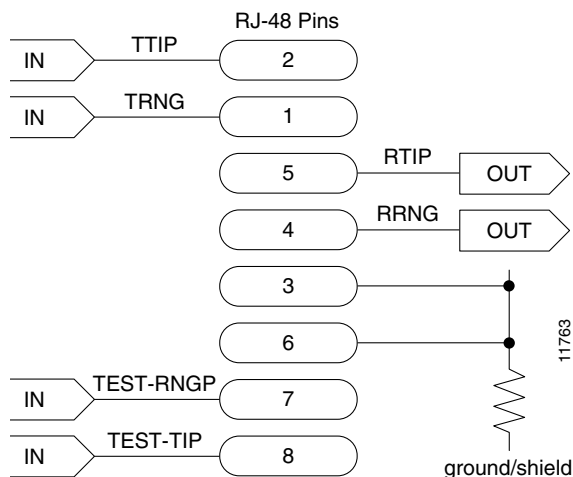
Cabling for RJ-48 Connectors on T1 and E1 Ports

For T1 and E1 ports that connect through an RJ-48 connector, each connector has the following pins:

- Transmit TIP (TTIP) pin
- Transmit RING (TRNG) pin
- Receive TIP (RTIP) pin
- Receive RING (RRNG) pin
- Two pins for shielded ground
- Test RING (TEST-RNG P)
- Test TIP (TEST-TIP)

The connector wiring is shown in [Figure 3-3](#).

Figure 3-3 RJ-48 PIN Connector



Cabling for SMB Connectors on E1 Ports

When you use the E1 VISM/VISM-PR back card with SMB cables, the E1 trunk cables connect the customer DSX-1 cross-connect point or E1 channel service unit (CSU) to the node using 75-ohm coaxial cable fitted with SMB connectors.

Removing VISM and VISM-PR Front and Back Cards

This section describes how to remove VISM/VISM-PR front and back cards and contains the following topics:

- [Removing a VISM or VISM-PR Front Card](#)
- [Removing a VISM or VISM-PR Back Card](#)

Removing a VISM or VISM-PR Front Card

To remove a VISM or VISM-PR front card, complete the following steps.

-
- Step 1** Insert a small, flat-blade screwdriver into the slot in the insertion/extractor lever and press until the latch springs open, to approximately 10°.
 - Step 2** Continue to lift the insertion/extractor lever to disconnect the connector.
 - Step 3** Gently pull the card out of the chassis.
-

Removing a VISM or VISM-PR Back Card

To remove a VISM or VISM-PR back card, complete the following steps:

-
- Step 1** Remove any cables connected to the back card.
- Step 2** Use a small, flat-blade screwdriver to unscrew the two retaining screws in the back card faceplate.
- Step 3** Pull both of the extractor levers out to the horizontal position.
This action starts the removal of the card.
- Step 4** Gently pull the card out of the chassis.
-

Applying Power to the VISM/VISM-PR Card

Apply power to a VISM/VISM-PR card by installing the card in an already running MGX 8000 Series platform. Or, apply power to a chassis that has a previously installed VISM/VISM-PR card.

When power is applied, the VISM/VISM-PR card performs extensive testing and initialization functions. If the card has already been configured, the initialization downloads the configuration data from the disk on the PXM. This process takes approximately two minutes, during which the LED indicator blinks. When the Active LED becomes solid green, the card is in the Active state and is ready to be configured (if necessary) and is able to process data.

Software Upgrades

VISM/VISM-PR Release 3.2 provides a graceful upgrade procedure for the following releases:

- From VISM 1.5 to VISM 3.2
- From VISM 2.1 to VISM 3.2
- From VISM 2.2 to VISM 3.2
- From VISM 3.1(1) to VISM 3.2
- From VISM 3.1(2) to VISM 3.2

**Caution**

Installing VISM software updates from VISM Release 2.2 with CALEA to VISM Release 3.2 without CALEA is not graceful.

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 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 3.2 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.

Download 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.
- a. **fttp** *<node_name or IP address>*
 - b. **bin**
 - c. **put** *<backup boot>* POPEYE@SM_1_0.BT
 - d. **quit**

- Step 4** Download the selected firmware file.

To upgrade all VISM cards, proceed to [Step 4c](#). To upgrade an individual VISM card, proceed to [Step 4d](#).

- a. **fttp** *<node_name or IP address>*
- b. **bin**
- c. **put** *<FW file>* POPEYE@SM_1_0.FW
quit
- d. **put** *<FW file>* POPEYE@SM_1_<slot number of card to upgrade>.FW
quit



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

Upgrade VISM/VISM-PR Firmware with PXM1 Card

Software Release 3.2 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 3.2 are available:

- 003.002.000.000—without CALEA
- 003.052.000.000—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 3.1(2) and prior.
- New-rev refers to the firmware after the upgrade, Release 3.2.

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).

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

savesmcnf *<SM slot#>*

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

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

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

where:

SM slot# is the slot number of the primary VISM or VISM-PR card and *new-rev* is the file name of the new firmware (for example, `vism_8t1e1_003.002.000.000.fw`).

This 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.

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

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

where:

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

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

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

commit sm *<SM slot#>* *<new-rev>*

where:

SM slot# is the slot number of the primary VISM or VISM-PR card and *new-rev* is the filename 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 6 Log in to the active VISM or VISM-PR card and use the display commands (for example, **dspendpts**, **dspcasvar**, 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 4](#) and [Step 5](#) for each VISM card in the redundancy group.

It is also recommended that you 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 [Step 1](#) to [Step 3](#).

For more information about the VISM and VISM-PR card specifications, see [Appendix B, “VISM and VISM-PR Release 3.2 Specifications”](#).

Boot Code Upgrade Procedure with PXM1 Cards

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



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

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



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

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

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



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

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



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

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

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

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



Note [Step 4](#) is optional.

You have completed upgrading the new VISM backup boot code.

VISM-PR Upgrades 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.

Download 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 image on the Cisco Web site.

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

ftp *node-ip*

where *node-ip* 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 Access the appropriate directory.

cd C:FW

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

put *image-version*

where *image-version* is the downloaded image from [Step 1](#).

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

Upgrade VISM-PR Firmware with PXM1E and PXM45 Cards

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 3.2 are available:

- 003.002.000.000—without CALEA
- 003.052.000.000—with CALEA

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 as a contingency plan, enter the **saveallcnf** command.
 - Step 4** To load the new software, enter the **loadrev** command.

loadrev *sm-primary-slot-num new-rev*

where *sm-primary-slot-num* is the slot number of the VISM-PR card in which you want to install the new software; and *new-rev* is the new firmware version number for the VISM-PR software.



Caution Temporary traffic loss occurs.

- Step 5** To execute the download, enter the **runrev** command.
- runrev** *sm-primary-slot-num new-rev*



Caution Temporary traffic loss occurs.

- Step 6** To commit the new download to the VISM-PR card, enter the **commitrev** command.
- commitrev** *sm-primary-slot-num new-rev*

You have completed the steps. Proceed to the [Boot Code Upgrade Procedure with PXM1E and PXM45 Cards, page 3-12](#).

Boot Code Upgrade Procedure 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 [VISM-PR Upgrades with PXM1E and PXM45, page 3-11](#).
 - Step 2** Log in to the PXM1E or PXM45 card.
 - Step 3** Use the **burnboot** *sm-primary-slot-num new-rev* command, where *sm-primary-slot-num* is the slot number of the VISM-PR card you want to upgrade and *new-rev* is the firmware version number of the new VISM software, to upgrade the VISM-PR boot code.

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

VISM/VISM-PR Downgrade Procedure

Use this procedure to downgrade VISM software from software Release 3.2 to an earlier VISM release. By following the downgrade procedure described here, the configurations are retained 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 software from software Release 3.2 for VISM/VISM-PR to Release 3.1.2, 2.2, 2.1, or 1.5:

-
- Step 1** If the VISM card is in a redundancy group, remove the redundancy.
- delred** <SM slot#>
- Step 2** Download the old-rev firmware onto the MGX shelf.
- Step 3** Execute the PXM **clrmscnf** command:
- clrmscnf** <SM slot#>
- where:
- SM slot#* is the slot number of the VISM card to be downgraded.
- The VISM card resets on executing this command. Wait for the card to come active.
- Step 4** Execute the PXM **restoresmcnf** command:
- restoresmcnf -f** <filename> -s <SM slot#>
- where:
- The *filename* is the name of the old configuration file that was saved while the old-rev firmware was running. The file can be found in the C:CNF directory on the MGX shelf.
- The *SM slot#* is the slot number of the VISM card to be downgraded.
- The VISM card resets again. When the card becomes active, it has the old-rev firmware running with the old configuration.
- Step 5** Reconfigure redundancy group, if required.
-

VISM to VISM-PR Hardware Upgrade

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

**Caution**

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

-
- Step 1** Remove the redundant (standby) VISM card from your chassis.
- Step 2** Install a VISM-PR card in the slot you removed the VISM card from in [Step 1](#).
- Step 3** Administratively configure the VISM-PR card you installed in [Step 2](#) as primary (active).
- Step 4** Remove the now redundant VISM card from your chassis.
- Step 5** Install a VISM-PR card in the slot you removed the VISM card from in [Step 4](#).

- Step 6** Log 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 insure 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 and repeat the **dspcd** command to insure that the correct card type is shown.
- Step 8** If you have no other VISM cards in your chassis, you have completed the hardware upgrade procedure; do not proceed to [Step 9](#). If you have more VISM cards in your chassis, proceed to [Step 9](#).
- Step 9** Remove a standby VISM card from your chassis.
- Step 10** Install a VISM-PR card in the slot you removed the VISM card from in [Step 9](#).
- Step 11** Repeat [Step 9](#) and [Step 10](#) to remove any remaining VISM cards in your chassis and replace them with VISM-PR cards.
- Step 12** Repeat [Step 6](#) and [Step 7](#) on the remaining VISM-PR cards to insure the correct card type is shown.
-



Telephony Applications Using VISM

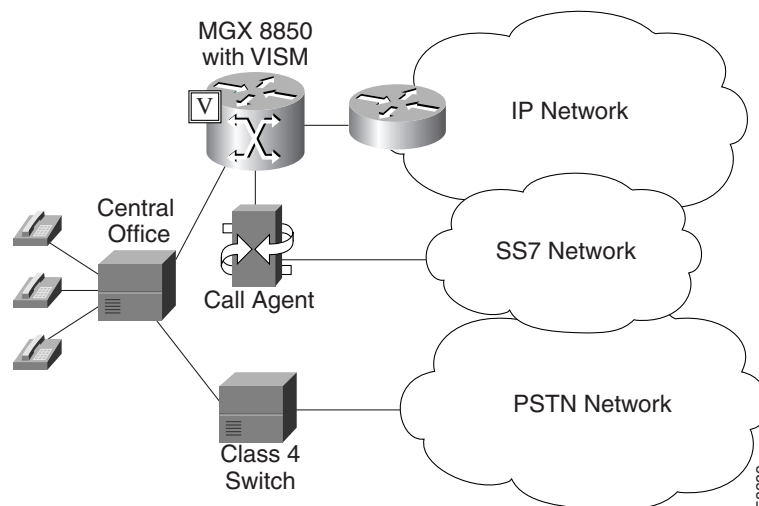
This chapter describes how the VISM card is used in telephony applications to transport traditional TDM voice traffic as digitized voice traffic over ATM networks. The following topics are discussed:

- “[Tandem Switch Offloading](#)” section on page 4-1
- “[Multiservice Access](#)” section on page 4-3
- “[AAL2 Trunking](#)” section on page 4-3

Tandem Switch Offloading

[Figure 4-1](#) shows VISM used to offload a Class 4 tandem switch by transporting a portion of the voice traffic across an ATM network instead of the Public Switched Telephone Network (PSTN). VISM acts as the voice gateway in this application. Use VISM in the VoIP switching or switched AAL2 PVC operating mode to enable this application.

Figure 4-1 VISM Used in a Tandem Switch Offloading Application



When a call is initiated, the central office can use either the Class 4 switch or VISM to handle the call. When calls are passed to VISM, VISM backhauls the signaling to an MGCP compliant call agent. The call agent at the near end manages the call setup in conjunction with the call agent at the far end and the calling and called VISM cards.

**Note**

Although not shown in the diagram, an alternative method for handling common channel signaling (CCS) signaling is to transport it directly between the central office and the call agent with no VISM involvement. With this arrangement, there is no backhauling function performed in the VISM.

Each VISM card supports up to eight T1 or E1 lines for voice traffic. You can use an alternative method to connect the voice lines to the VISM cards—the TDM lines can be carried over a T3 line to an SRM card in the Cisco MGX shelf where the individual T1 lines are broken out and distributed to the VISM card internally.

For more information refer to the *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Hardware Installation Guide Release 2 through 4*.

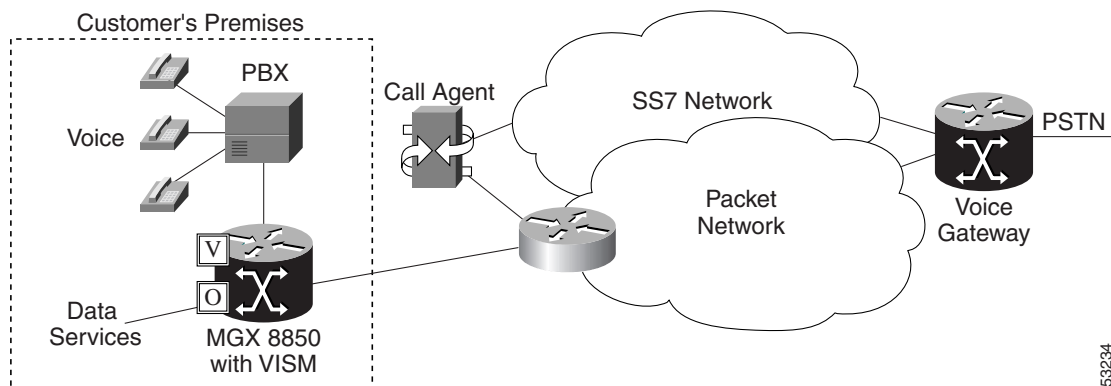
The VISM connects to the ATM network using either VoAAL2 or VoIP (UDP/IP packets encapsulated in AAL5 PVCs). VISM and the call agent communicate with each other and their activities are coordinated through MGCP.

For VoIP, when the call setup procedure is complete, each VISM has the IP address of the other VISM associated with the call. An end-to-end IP bearer circuit is established between the calling and called parties. At this point, the voice conversation can proceed.

By way of example, [Figure 4-1](#) shows only one location for the VISM and call agent; in reality there is a similar arrangement for each tandem switch.

[Figure 4-2](#) shows the connection from VISM to the call agent in greater detail.

Figure 4-2 VISM Used as a Voice Gateway Application



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The VISM/MGX 8000 shelf is connected to the network by an OC-3 line which is used for both the voice payload and the communication with the call agent. A network edge router moves the voice traffic across the network to the called party's VISM and routes call control information between the VISM and the call agent.

For reliability, two PVCs using separate physical links to two separate edge routers to the packet network can be established. If the primary circuit fails, transmission automatically switches to the secondary circuit. For enhanced reliability, the physical OC-3 links to the network can be protected by the SONET APS feature.

Using all the available slots, the Cisco MGX 8850 (PXM1, PXM1E, and PXM 45) and the Cisco MGX 8250 can be configured with up to 24 VISM cards. The Cisco MGX 8230 and Cisco MGX 8830 can be configured with up to 8 VISM cards.

Multiservice Access

A Cisco MGX 8000 series shelf, combined with one or more VISM cards, provides multiservice access between a customer's TDM network and a voice gateway over a packet network. The voice gateway provides the interface to the telephone network.

When voice traffic is conveyed over a packet network using VISM and an MGX 8000 series shelf (multiservice access), the MGX 8000 series shelf is located either at the customer's premises or at the central office. Use VISM in the VoIP switching or switched AAL2 PVC operating mode to enable multiservice access.

Multiservice access is similar to the tandem switch offloading application, except that instead of performing as the voice gateway, VISM provides access to the voice gateway.

VISM operates in conjunction with an MGCP compatible call agent via an edge router/switch on the packet network. Signaling is backhauled from VISM to the call agent through this connection. The call agent connects to the SS7 network and handles call setup and teardown across the packet network. The VISM connects to the ATM network and handles the voice payload between the TDM voice/data network and a voice gateway. For transmitting the voice payload to the network, VISM uses either VoIP transported in AAL5 ATM cells or VoAAL2.

Other data services (such as Frame Relay) can also be accommodated by configuring the MGX 8000 series shelf with the appropriate service modules (for example, FRSM) and using separate PVCs into the packet network.

AAL2 Trunking

A Cisco MGX 8000 series shelf, in combination with VISM cards, provides AAL2 trunking between a voice TDM network and voice gateways over a packet network. Use VISM in the AAL2 trunking operating mode to enable this application.

Figure 4-3 shows a trunk with a VISM-equipped MGX 8850 shelf at one end of a trunk (at the central office) and a Cisco 3810 Multiservice Access Concentrator and a Cisco MGX 8830 edge concentrator at the other end of the trunk (customer premises).

Figure 4-3 AAL2 Trunking—One End

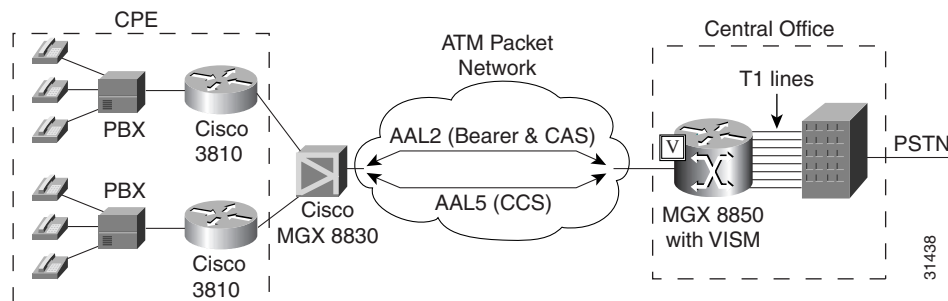
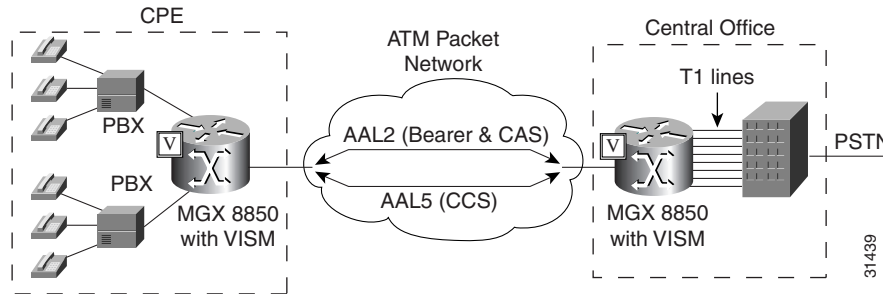


Figure 4-4 shows a trunk with a VISM-equipped MGX 8850 shelf at each end of the trunk.

Figure 4-4 AAL2 Trunking—Two Ends



Note

Figure 4-4 shows one trunk; however, VISM can support up to 64 trunks in this arrangement.

In Figure 4-3 and Figure 4-4, the trunk is an AAL2 non-switched ATM PVC that carries the voice traffic. The voice traffic is delivered to, or received from, the central office over short-haul T1 lines.

If CAS signaling is used, the signaling is transported across the trunk as AAL2 type 3 cells.

If CCS signaling is used, the signaling is delivered across the ATM network as AAL5 cells over separate PVCs. VISM supports up to eight AAL5 PVCs, one for each T1/E1 line.

Other data services (such as Frame Relay) can be accommodated by configuring Cisco 3810 or Cisco MGX 8000 hardware with the appropriate service modules and using separate PVCs into the packet network. The packet network routes these other data services as required.

In AAL2 trunking mode, VISM is not involved with a call agent and the functions of call control. Multiple calls can be transported over a single PVC using the AAL2 channel identifier (CID) mechanism. DS1/DS0s are bound to virtual channel identifier (VCI)/CIDs so that voice traffic from any particular DS0 is automatically passed to its bound VCI/CID (and vice versa).



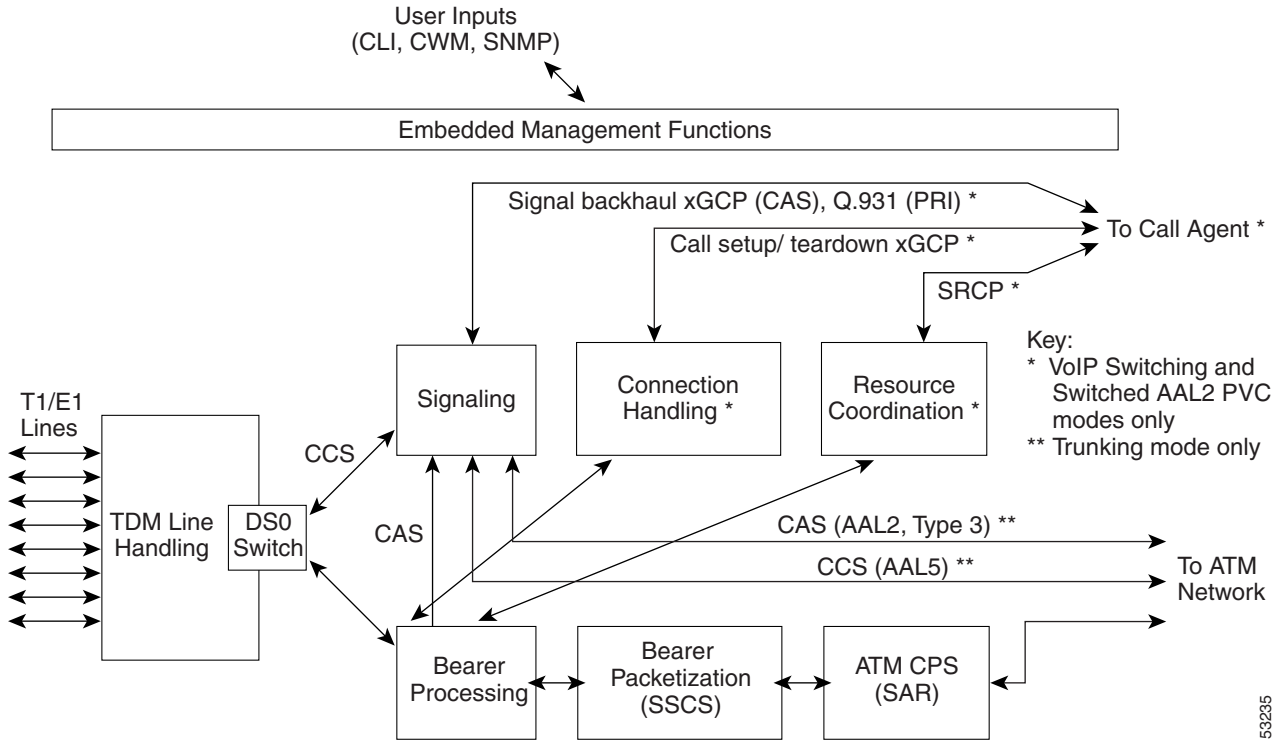
VISM/VISM-PR Functional Description

The functions performed by VISM/VISM-PR are described in the following sections:

- “TDM Line-Handling Function” section on page 5-2
- “Bearer Processing Function” section on page 5-3
- “Signaling Function” section on page 5-5
- “ATM Voice Data Processing Function” section on page 5-11
- “Call Control Function” section on page 5-15
- “Embedded VISM/VISM-PR Management Functions” section on page 5-19

Figure 5-1 shows the functional blocks of VISM/VISM-PR. Items with single asterisks indicate VoIP switching and switched AAL2 PVC functions. Items with double asterisks indicate AAL2 trunking functions. Items without asterisks indicate VoIP switching, switched AAL2 PVC, and AAL2 trunking functions.

Figure 5-1 VISM /VISM-PR Detailed Functional Blocks



TDM Line-Handling Function

The TDM line-handling function provides the physical layer interface to the T1/E1 lines and handles the following features:

- Framing
- Line codes
- Physical layer alarms and failures
- Clocking
- Loopbacks
- Distinguishes between bearer and CCS signaling channels

Outgoing traffic—in from the TDM network and out to the packet network—is processed by the T1/E1 framers where each DS0 is extracted from its DS1 stream and is routed by a DS0 switch to the appropriate function. Bearer DS0s are routed to the bearer processing function. CCS signaling DS0s are routed to the TDM signaling function.

Outgoing traffic—in from the packet network and out to the TDM network—is processed in the opposite manner. The DS0s received from the ATM side are inserted into their respective DS1s and transmitted over the appropriate line in the TDM network.

Bearer Processing Function

The bearer processing function processes raw bearer DS0 streams from the T1/E1 lines in preparation for packetization and segmentation and reassembly (SAR) processing on the ATM side. Most of the bearer processing is performed by the VISM/VISM-PR daughter card's DSPs.

The main processing categories are

- [Echo Cancellation, Voice Compression, A/Mu Law Conversion](#)
- [Voice Activity Detection and Silence Suppression](#)
- [Fax and Modem Tone Detection](#)
- [Jitter Control](#)
- [CAS Handling](#)

Echo Cancellation, Voice Compression, A/Mu Law Conversion

Bearer DS0 streams are received from the T1/E1 line function, and each is assigned to a DSP configured for echo cancellation (ECAN). You can configure the following ECAN parameters:

- Residual echo control
- Maximum tail in milliseconds (up to 128 ms)
- Fax and modem tone detection

If voice compression is required, the ECAN voice streams are assigned to a second DSP configured with the required codec. Available compression schemes are:

- G.711 64 kbps (A/Mu law, user configurable)
- G.726-16k
- G.726-24k
- G.726-32k
- G.726-40k
- G.729a
- G.729ab
- G.723.1-H
- G.723.1a-H
- G.723.1-L
- G.723.1a-L

VISM/VISM-PR allows the use of codec templates in which the user selects a template instead of specifying each allowable codec individually. VISM/VISM-PR supports the following codec templates:

- Template 1—Supports clear channel, G.711a, G.711u, G.729a, G.729ab, G.726-16k, G.726-24k, G.726-32k, and G.726-40k codecs.
- Template 2—Supports clear channel, G.711a, and G.711u codecs.
- Template 3—Supports G.711u, G.711a, G.726-16k, G.726-24k, G.726-32k, G.726-40k, G.729a, G.729ab codecs, and clear channel.

- Template 4—Supports G.711u, G.711a, G.726-16k, G.726-24k, G.726-32k, G.726-40k, G.729a, G.729ab, G.723.1-H, G.723.1a-H, G.723.1-L, G.723.1a-L codecs, and clear channel.
- Template 5—Supports G.711u, G.711a, G.729a, G.729ab, G.726-32K, CLR-CHAN, G.726-16K, G.726-24K, G.726-40K, and Lossless codecs.

Within each template, you can specify a preference order for each codec. At call setup time, the codec to be used from the configured template is either specified by the call agent or negotiated between the calling and called VISM/VISM-PR cards. If the codec is negotiated, the most preferred codec that both VISM/VISM-PR cards can support is selected.

For each codec, VISM/VISM-PR supports various packetization periods as described in [Table 5-1](#).

Table 5-1 Supported Codecs and Packetization Periods

Codec	Packetization Period (milliseconds)
G.711u	5, 10, and 20
G.711a	5, 10, and 20
G.729a	10, 20, 30, and 40
G.729ab	10, 20, 30, and 40
G.726-16k, 24k, 32k, 40k	10, 20, 30, and 40
G.723.1-H	30 and 60
G.723.1a-H	30 and 60
G.723.1-L	30 and 60
G.723.1a-L	30 and 60
Clear channel	10 and 20
Lossless compression	Range is 0–50. Note For Lossless compression, the default jitter delay is 16. Cisco recommends the jitter delay to be at least 16 or 20 depending on your network.

Voice Activity Detection and Silence Suppression

You can configure the VISM/VISM-PR card DSPs to monitor the TDM voice stream for voice activity. If the voice activity detection (VAD) feature is enabled and no voice activity (silence) is detected for more than a specified period of time, typically 250 ms, the silent voice samples are suppressed. During periods of silence, parameters defining background noises transmit periodically. You can configure the remote VISM/VISM-PR to use the background noise information to generate comfort noise at the called end while silence suppression is in operation.

Fax and Modem Tone Detection

You can configure the VISM/VISM-PR card DSPs to detect the modem or fax tones on the data lines. For VoIP operating mode, the action is specified using command line interface (CLI) commands. See [Chapter 7, “CLI Commands,”](#) for more information on CLI commands. For AAL2 connections, the action is specified in the AAL2 profile. Generally, when a modem or fax tone is detected, VAD and ECAN are turned off, and codec is changed to the specified type (for example G.711 or clear channel).

**Note**

If the codec is already set to clear channel, the DSP cannot detect any tones; fax and modem tones are not detected.

Jitter Control

The VISM/VISM-PR card uses voice buffers on the DSP to reduce jitter on outgoing voice streams. Jitter control operates in the following modes:

- Fixed—Allows you to configure a fixed buffer size in the range 0 to 100 ms. This mode is used when latency jitter is nearly constant. This is the default mode for G.711u/a and clear channel codecs with a 100-ms buffer size.
- Adaptive—Allows you to configure a starting buffer size but adapts the size of the buffer according to the jitter. Use this mode when latency jitter varies greatly. This is the default mode for all codecs other than G.711u/a and clear channel.

CAS Handling

In applications using CAS, you can configure the VISM/VISM-PR card DSPs to monitor incoming traffic and extract the following CAS signaling information:

- ABCD bits
- Digits
- Tones

You can configure VISM/VISM-PR to handle various CAS variations such as immediate start, wink start, ground start. The extracted CAS signaling information is sent to the TDM signaling function.

Signaling Function

All TDM signaling enters and exits VISM/VISM-PR on the T1/E1 lines and is directed to the signaling function. CAS signaling information is received from the bearer processing function, described in the [“Bearer Processing Function” section on page 5-3](#). CCS signaling information arrives directly from the TDM line handling function, described in the [“TDM Line-Handling Function” section on page 5-2](#).

VISM/VISM-PR depends on a combination of the following two features to determine how to handle signaling:

- Operating mode:
 - VoIP switching/VoIP trunking
 - AAL2 trunking

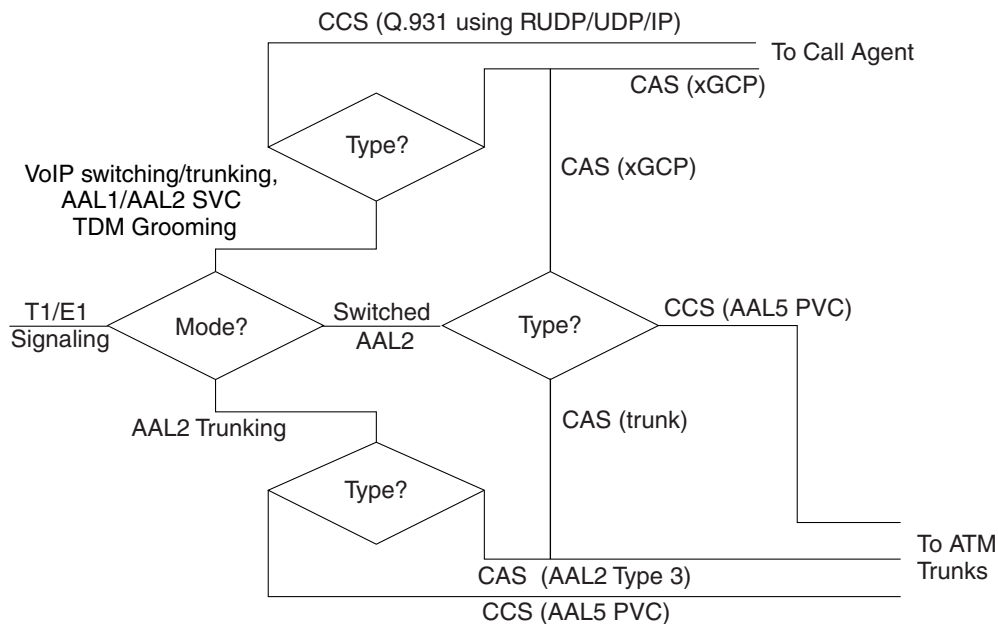
- AAL1 SVC
- AAL2 SVC
- Switched AAL2 PVC
- AAL1/VoIP (for TDM grooming)
- VoIP trunking/AAL2 trunking?
- Signaling type:
 - CAS
 - CCS

Signaling enters from the T1/E1 lines and, depending upon the mode and the type of signaling, is processed for the correct protocol and directed to either the call agent or the ATM trunks (see [Figure 5-2](#)).

**Note**

You can configure the VISM/VISM-PR card to support CCS signaling without card involvement. In this configuration, a CCS channel is connected directly to the call agent that handles all necessary processing of signaling information.

Figure 5-2 VISM /VISM-PR Signaling Paths



CAS signaling can be configured, in the switched AAL2 PVC operating mode to send the signaling to the call agent or over an AAL2 PVC as in the AAL2 application.

CAS Processing in VoIP Switching and Switched AAL2 PVC Operating Modes

In the VoIP switching and switched AAL2 operating modes, CAS signaling is processed by the call agent using xGCP protocols.

The call agent performs the following functions:

- Issues the xGCP Notification Request command to instruct VISM/VISM-PR which CAS signals are to be reported to the call agent.
- Instructs VISM/VISM-PR which CAS signals to send out the DSO.

The VISM/VISM-PR card performs the following functions:

- Responds by sending acknowledge messages in return to call agent commands.
- Sends received CAS signals back to the call agent by using the SGCP Notify command.
- Interfaces with the DSP drivers, which perform the detection and generation of CAS signals.

Figure 5-3 shows the messages involved in CAS processing with the VoIP switching and switched AAL2 PVC operating modes.

Figure 5-3 CAS Processing—Message Structure

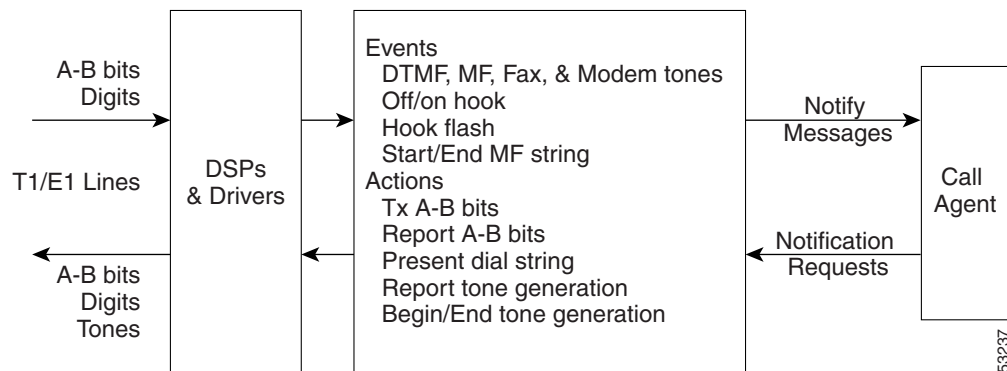
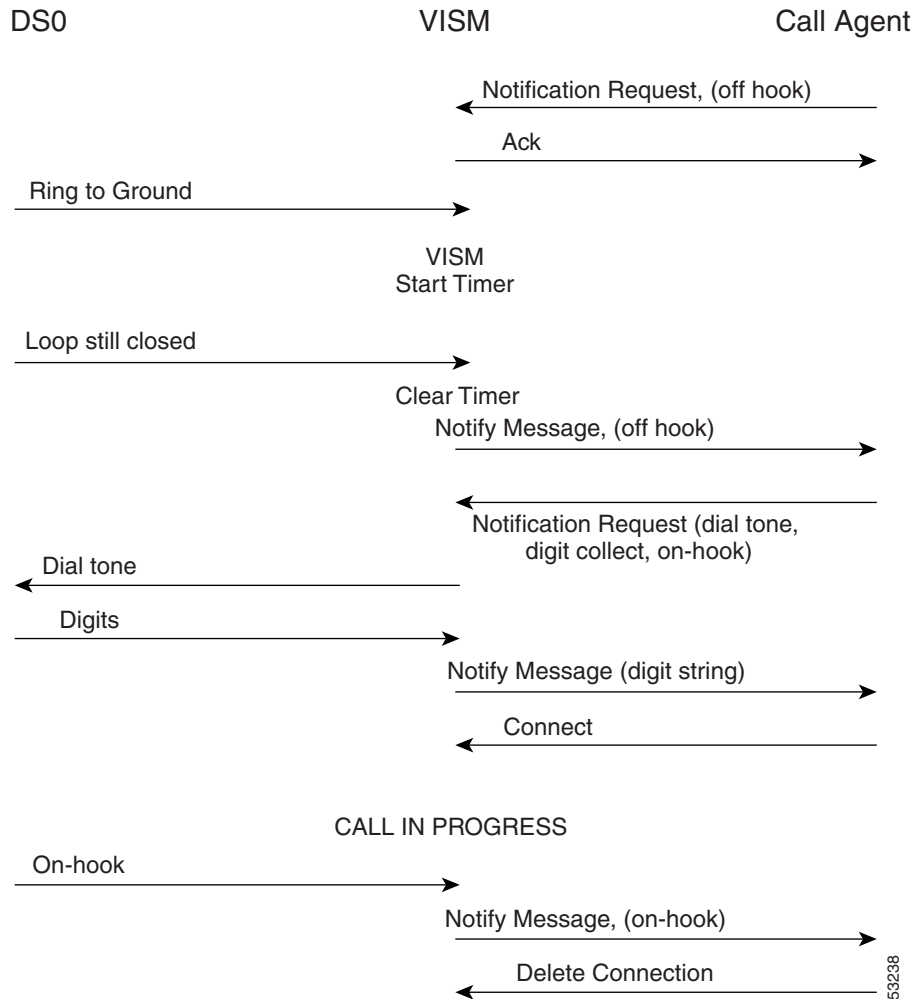


Figure 5-4 shows the local CAS processing call setup message sequences which occur between VISM/VISM-PR, the call agent, and the telephone equipment on the DS0.

Figure 5-4 CAS Signaling in Initiating and Terminating a Call



Note

Figure 5-4 shows only the local CAS aspects of call setup. The entire process of call setup involves many more messages between the local and remote call agents and the local and remote VISM/VISM-PRs. For more information, see the “Call Control Function” section on page 5-15.

The call processing for the VoIP switching and switched AAL2 operating modes is described in the following list:

1. The call agent requests VISM/VISM-PR to look for an off-hook signal when the line is idle.
2. Upon receipt of an on-hook signal, VISM/VISM-PR starts a timer and checks later to ensure that the line is still off-hook.
3. VISM/VISM-PR notifies the call agent that the caller has gone off-hook. This timer mechanism is also used when processing on-hook/off-hook signaling to determine flash-hook events.

4. When the call agent is informed that the user is off-hook, the call agent instructs VISM/VISM-PR to generate dial tone and to look for dialed digits.
5. When the call agent receives the dialed number, the local call agent uses the dial plan to communicate with the remote call agent to set up the call.
6. The call is terminated when either the called or calling party goes on-hook.

CCS Processing in Switched AAL2 PVC Operating Mode

In the switched AAL2 PVC operating mode, CCS signaling can be configured to pass (backhaul) CCS signals between the user PBXs and the call agents.

You can configure T1 and E1 lines for CCS signaling. You must specify a particular DS0 as an Integrated Services Digital Network (ISDN) D channel to carry the Primary Rate Interface (PRI) signaling. Signaling from the private branch exchange (PBX) is received on the D channel as level 3 Q.931 messages encapsulated in the information field of level 2 Q.921 LAPD information frames.

The Q.921 link is terminated at the VISM/VISM-PR and on the call agent side. A Redundant User Datagram Protocol/User Datagram Protocol/Internet Protocol (RUDP/UDP/IP) connection is used to carry level 3 Q.931 signaling between VISM/VISM-PR and the call agent. This link to the call agent flows through an intermediate router. From VISM/VISM-PR to the router, the RUDP/UDP/IP packets are segmented and transported as AAL5 ATM cells.

The function of the VISM/VISM-PR PRI/backhaul feature is to pass the Q.931 messages between the PBX and the call agent.

VISM handles all Q.921 frame types. For information type frames, the process is described in the following list:

1. VISM/VISM-PR extracts the Q.931 frame.
2. VISM/VISM-PR then places the frame in an RUDP datagram.
3. The RUDP datagram is encapsulated in UDP and IP packets (using the IP address and a specified port number of the destination call agent).
4. The SAR section of VISM/VISM-PR segments the IP message into AAL5 ATM cells for transport to the call agent via an edge router.

In CCS processing, communication between VISM/VISM-PR and the call agent involves both call control information using xGCP protocols and CCS signaling using Q.931 protocol. Both are transported using the AAL5 ATM connection.

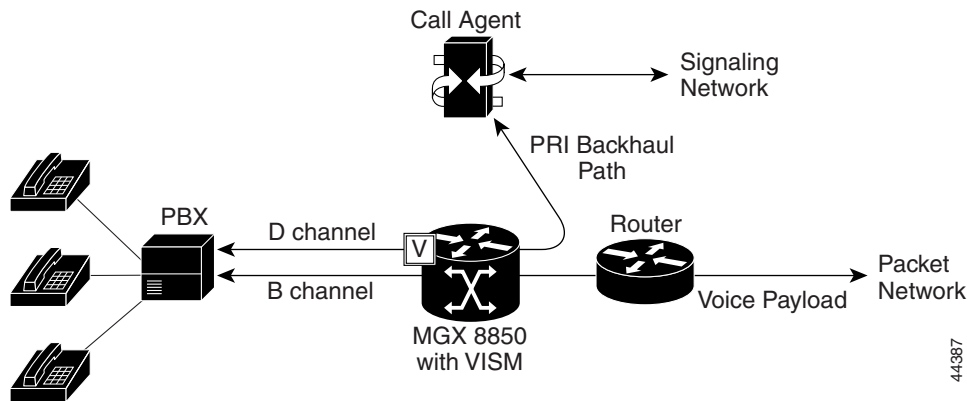
Signaling from the call agent to the PBX is handled in the same manner but in reverse:

1. Signaling from the call agent is stripped of its RUDP/UDP/IP headers and trailers.
2. Signaling is then encapsulated into Q.921 information type frames for transmission to the user's PBX.

VISM/VISM-PR is not involved with the signaling content but acts as an interface between the PBX and the call agent.

Figure 5-5 shows the VISM/VISM-PR PRI/backhaul process.

Figure 5-5 PRI/Backhaul Path

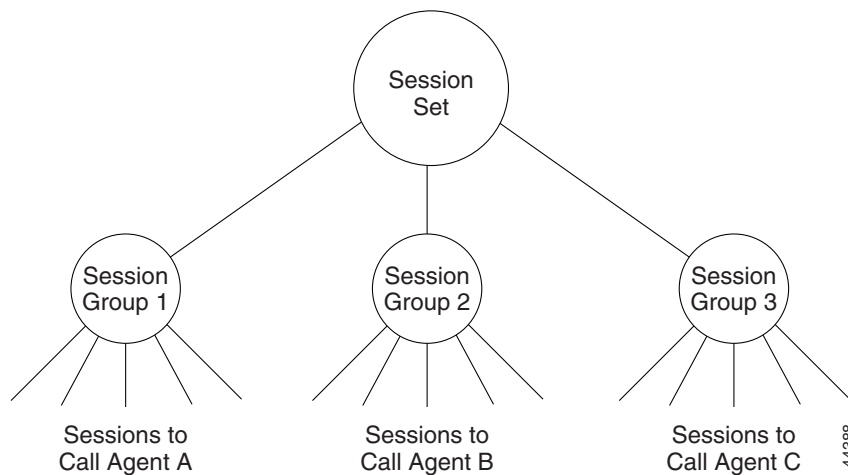


For RUDP links between VISM/VISM-PR and the call agents, use a session with a session manager.

A session represents a single RUDP link to a specified call agent. Sessions are organized into session groups, and session groups are organized into session sets. VISM/VISM-PR architecture supports up to 64 sessions and up to 16 session groups.

Multiple RUDP links for a specified call agent are set up as sessions in a single group. A group is required for each call agent for which CCS signaling is to be backhailed. Within a group, each session is assigned a priority level. When an active session fails, the session manager switches to the next highest priority backup session within the group. Figure 5-6 shows the hierarchy of RUDP sets, groups, and sessions.

Figure 5-6 RUDP Session Hierarchy



VISM/VISM-PR maintains a set of counters for the collection of statistics at both the Q.921 and Q.931 protocol levels. The collected statistics include the number of frames/packets/bytes sent and received, the number of resets, the number of discards and retransmissions, etc. See the CCS session and LAPD display commands in Chapter 7, “CLI Commands,” for more information on collected statistics for the CCS session and LAPD display commands.

Use the CLI PRI/backhaul commands to do the following:

- Create and delete session sets
- Create, delete, configure, and display sessions and sessions groups
- Create, delete, configure, and display D channels for CCS
- Display PRI/backhaul statistics

See [Chapter 7, “CLI Commands,”](#) for more information on CLI commands.

CAS Processing in AAL2 Trunking Operating Mode

CAS signaling is extracted from the voice data and is transported across the packet network in AAL2 trunking operating mode. The signaling is transported across the same trunk (VC) and the same channel identifier (CID) as its associated voice stream, using AAL2 Type 3 messages in accordance with ITU-T I.366.2. The messages are used for CAS (A,B,C, and D) robbed bits, fax/modem tones, and digits and are transported with triple redundancy.

CCS Processing in AAL2 Trunking Operating Mode

CCS signaling is maintained as Q.931 messages and transported across the packet network using an AAL5 PVC in AAL2 trunking operating mode. The local and remote ends of the PVC are the same as those for the AAL2 PVC trunk carrying the associated voice data.

ATM Voice Data Processing Function

The VISM/VISM-PR DSPs process incoming voice data (for compression, ECAN, and so forth), and the data is prepared for transport over the ATM network. Voice samples are processed into ATM packets and then into ATM cells in preparation for transport. VISM/VISM-PR then transports the cells to Voice over ATM (VoATM) networks with the following supported operating modes:

- VoIP
- Switched AAL2 PVC
- AAL2 trunking
- AAL1 SVC

Transporting Voice Cells with VoIP

The VoIP switching operating mode processes voice cells in the following order to transport them over ATM networks:

1. Formatted into Real-Time Transport Protocol (RTP) packets.



Note RTP allows time-stamping of the voice samples, which permits dejittering of the samples transmitted to the destination TDM line.

2. Encapsulated in a UDP packet.

3. Encapsulated in an IP packet.
4. Converted to AAL5 ATM cells for transmission to an edge router on the network.

Figure 5-7 shows the protocol stack for VoIP.

Figure 5-7 VoIP Protocol Stack

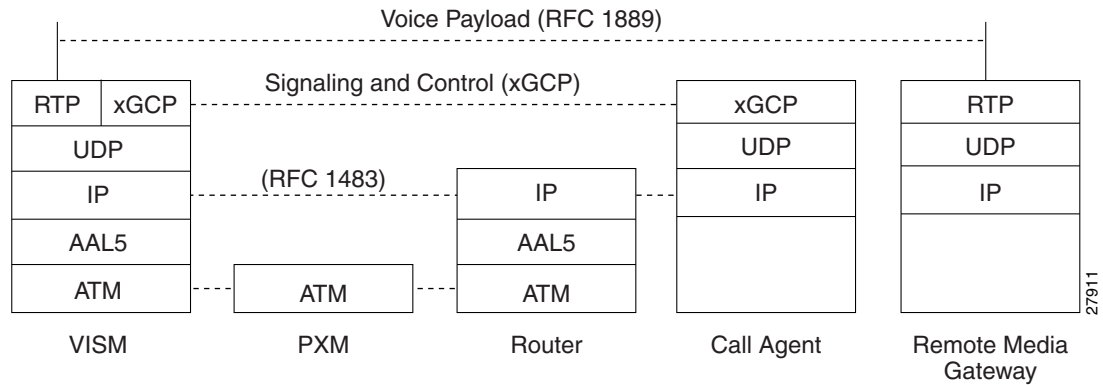
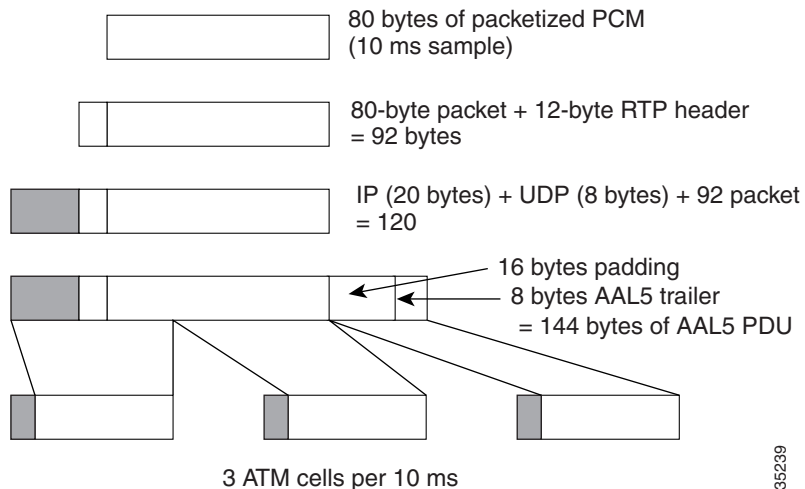


Figure 5-8 shows how a voice sample is packetized and transmitted as cells.

Figure 5-8 VoIP Cell Packetization and Transmission



At the layer containing RTP, a 12-byte header is added to the 80 bytes of packetized PCM. At the layer containing UDP, an 8-byte header is added. At the layer containing IP, a 20-byte header is added for a total of 120 bytes.

At the layer containing AAL5, the 8-byte AAL5 trailer is added and the data is padded with 16 bytes to make an integral number of ATM cell payload bytes. The resulting protocol data unit (PDU) is 144 bytes in length and is transported in three ATM cells.

A single PVC is set up between the Cisco MGX 8000 series platform and the router. All packets are sent across the PVC regardless of their destination. The router extracts the IP addresses and routes the cells accordingly.

To improve reliability, VISM/VISM-PR supports two independent OC-3 interfaces, each connected to a separate edge router and each with its own PVC. One PVC is designated the primary PVC and the other the secondary PVC. The primary circuit is used unless it fails, in which case VISM/VISM-PR switches automatically to the secondary circuit. Switchover may cause a temporary 250 ms delay on the lines.

VISM/VISM-PR communicates with the packet network about transmitting the voice payload by using the SONET OC-3 port on the MGX 8000 series platform PXM card. Voice payload samples are formatted and sent across the MGX 8000 series platform cellbus and onto the SONET connection.

Transporting Voice Cells with Switched AAL2 PVC

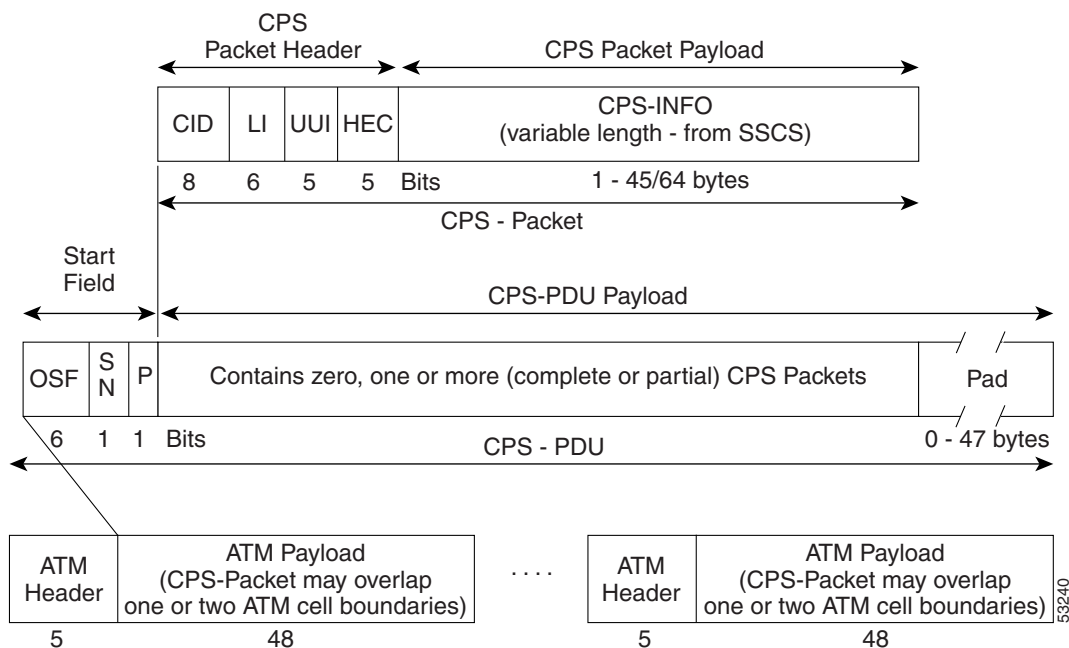
The switched AAL2 PVC operating mode transports voice cells with up to 64 PVCs. Multiple calls can share a single AAL2 connection simultaneously using a CID. Each PVC is assigned a virtual connection circuit identifier (VCCI). The VCCI/CID to endpoint/DS1/DS0 binding is made dynamically by the call agent as part of the call setup procedure. However, you can permanently set the binding, which makes VISM/VISM-PR operate as if it were in AAL2 trunking operating mode.

The AAL2 PVC supports AAL2 profiles and mid-call upspeeds. Codec changes can be supported if they are within the agreed upon profile. The following AAL2 profiles are supported:

- Custom profile 100
- Custom profile 101
- Custom profile 110
- ITU-T I.366.2 profile 1
- ITU-T I.366.2 profile 2
- ITU-T I.366.2 profile 7
- ITU-T I.366.2 profile 8

Figure 5-9 shows the packetization process for AAL2 cells.

Figure 5-9 AAL2 Cell Packetization and Transmission



Transporting Voice Cells with AAL2 Trunking

The AAL2 trunking operating mode transports voice cells with up to 64 AAL2 trunks. The CID/virtual channel identifier (VCI) for each DS1/DS0 pair is preprovisioned, which ensures that DS0 voice streams are automatically transported over the appropriate trunk.

For CAS applications, voice cells and CAS signaling are transported across the AAL2 trunk. If a channel is configured for CCS signaling, the signaling is transmitted by extracting HDLC frames and forwarding them over preprovisioned AAL5 virtual circuits (the voice cells are still transmitted using AAL2).

VISM/VISM-PR does not support any call control functions with the AAL2 trunking operating mode. VISM/VISM-PR passes signal traffic across the trunk.

Alarm and packetization handling are the same as in the switched AAL2 PVC operating mode. See the “Transporting Voice Cells with Switched AAL2 PVC” section on page 5-13.

Transporting Voice Cells with Switched AAL1 SVC

VISM/VISM-PR interacts with a call agent using an xGCP protocol over AAL5 control PVCs. In the switched AAL1 SVC operating mode, the bearer path is VoAAL1, and the bearer connections are SVCs. VISM/VISM-PR dynamically sets up and tears down bearer connections.

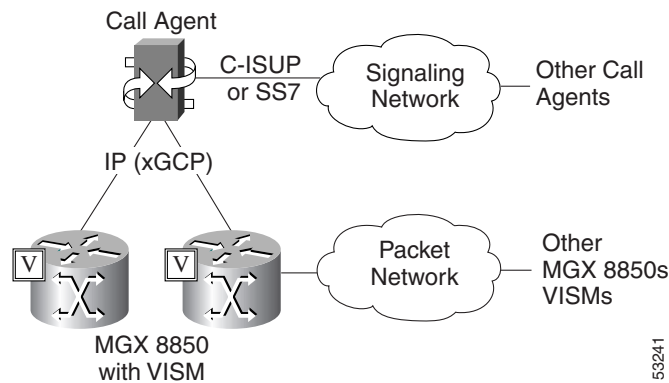
Call Control Function

Call control is used in the VoIP switching and switched AAL2 PVC operating modes and is managed by the call agents. The call agent performs the following functions:

- Analyzes signaling received from VISM/VISM-PR cards and other call agents to monitor the status of all endpoints and connections.
- Signals VISM/VISM-PR cards and other call agents to set up and tear down calls.
- Reacts to fax, modem, alarm, and other line conditions and events.
- Maintains a dial plan to locate the remote call agent using the dialed number.
- Negotiates profiles and codecs between the called and calling locations.

These functions require call agent communication with the VISM/VISM-PR cards under call agent control and peer call agents. [Figure 5-10](#) shows the call agent communications links.

Figure 5-10 Call Agent Communications Links



The interface between the call agent and VISM cards is a gateway call control protocol generically known as xGCP. The following gateway call control protocols are supported:

- Media Gateway Control Protocol (MGCP) 0.1 and 1.0
- Trunking Gateway Control Protocol (TGCP) 1.0
- Simple Gateway Control Protocol (SGCP) 1.5
- Simple Resource Control Protocol (SRCP)

SRCP enables the VISM card and the call agent to resynchronize. Synchronization occurs when the call agent first assumes control of VISM or after the call agent loses communication with VISM.

All protocols use a UDP/IP connection between the call agent and the VISM cards. The IP address of the call agent can be resolved in the following ways:

- Internal table which you set up with the CLI
- External domain name server (DNS)

You can configure VISM/VISM-PR to use the internal table and external DNS in the following ways:

- Internal table only
- External DNS only

- Internal first and external second
- External first and internal second

VISM/VISM-PR supports up to 11 domain names. Each domain name can have up to eight internal and eight external IP addresses.

**Note**

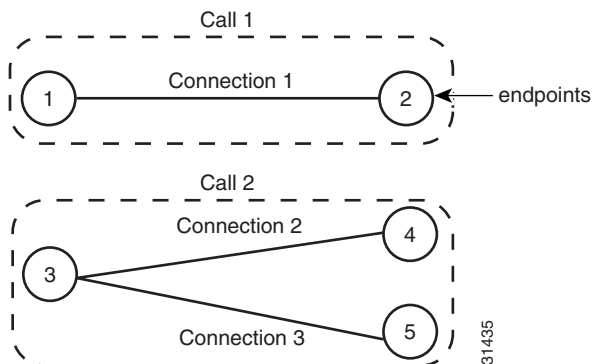
The external DNS can have up to eight internal IP addresses only.

The interface between the call agent and other call agents is either Signaling System 7 (SS7) or a Cisco extended ISDN User Part (C-ISUP).

Connection Model

SGCP and MGCP gateway call control protocols assume a connection model where the basic constructs are connections and endpoints. Figure 5-11 shows a basic connection model.

Figure 5-11 Connection Model



Connections are grouped into calls. One or more connections can belong to the same call. Several connections, that may or may not belong to the same call, can terminate in the same endpoint.

The SGCP consists of the following commands:

- Notification request—Used by the call agent. Requests the gateway to send notifications upon the occurrence of specified events in an endpoint.
- Notify Messages—Used by the gateway. Sends a list of observed events to the call agent.
- Create connection—Used by the call agent. Sets up a new connection at the gateway.
- Modify connection—Used by the call agent. Modifies a gateway's view of a connection.
- Delete connection—Used by the call agent. Terminates a connection.

The MGCP extends SGCP to include the following commands:

- Audit endpoint—Used by the call agent. Audits information related to a given endpoint.
- Audit connection—Used by the call agent. Audits information related to a given connection.
- Restart in progress —Used by the gateway (VISM). Signals that an endpoint (or a group of endpoints) is brought into or taken out of service.

- Audit gateway—Used by the call agent. Identifies the status of the gateway.
- Audit line—Used by the call agent. Identifies the status of a given line.

The TGCP command set is the same as the MGCP command set.

xGCP Extensions for AAL2 Switched PVC and AAL2 SVC Operating Modes

VISM/VISM-PR supports the following extensions to the xGCP protocols for AAL2 switched and AAL2 SVC applications:



Note

Since TGCP 1.0 is supported only in VoIP switching mode, this section does not apply to TGCP.

- A new AAL2 Type 3 message type (coded '010001') for telephone signal events (TSEs). The following are TSEs:
 - ECAN off
 - Request audible ring tone
 - Ack continuity test
 - Request stop audible tone
 - Request continuity test
- An extended naming structure to include ATM endpoints. An ATM endpoint enables the following to be included in the definition of an endpoint:
 - ATM address
 - virtual path identifier (VPI)
 - VCI
 - VCCI
 - CID
- An extended list of connection events in MGCP, known as an ATM Package. These events are
 - Setup complete (for AAL2 CID path)
 - Setup failed (for AAL2 CID path)
 - Enable CAS via type 3 packets
- Introduction of a Profile Type in call setup commands to describe encoding techniques.

Endpoint Service States

Endpoints exist in one of two service states—in-service (IS) and out-of-service (OOS). The state of an endpoint is determined by user configuration commands and line alarm conditions. When an endpoint is added, it automatically assumes the state of the line.

When endpoints are taken OOS, the transition can be graceful or forced. If graceful, no new connections are permitted while ongoing connections are allowed to terminate normally. If forced, no new connections are permitted and all ongoing connections are terminated immediately.

You can also bring an endpoint to the IS and OOS states with the following commands, which operate either on a line-by-line basis or on the entire VISM/VISM-PR card:

- **cnflnis**—Configure a line as IS
- **cnflnoos**—Configure a line as OOS
- **cnfgwis**—Configure a VISM card as IS
- **cnfgwoos**—Configure a VISM card as OOS

These commands allow you to specify either a graceful or forced transition.

If an alarm condition on a line is raised, all endpoints on the line are brought into a forced transition to OOS. An automatic return to IS is performed when the alarm is cleared, unless a specific OOS command is executed in the meantime.

Restart In Progress Command

The call agent is kept informed of the state of all endpoints with the xGCP Restart In Progress (RSIP) command. The following minimum requirements must be met for this process to operate:

- At least one call agent must be configured using the add media gateway controller (**addmgc**) command.
- A protocol must be added for each media gateway controller using the add media gateway group entry command (**addmgcgrpentry**) command.

The VISM/VISM-PR card issues an RSIP command in the following situations:

- One or more endpoints are added or deleted with the following commands:
 - **addendpt**
 - **addendpts**
 - **delendpt**
 - **delendpts**
- A line is configured as IS or OOS with one of the following commands:
 - **cnflnis**
 - **cnflnoos**
- The VISM/VISM-PR card (gateway) is configured as IS or OOS with one of the following commands:
 - **cnfgwis**
 - **cnfgwoos**
- The VISM/VISM-PR card is powered up or reset.



Note In this case, the RSIP is delayed by a random amount (up to a configurable maximum duration) to avoid an avalanche of RSIPs arriving at the call agent when an entire MGX 8000 series platform with multiple VISM/VISM-PR cards is powered up or reset.

When the states of multiple endpoints are changed simultaneously, the VISM/VISM-PR card minimizes the number of RSIP commands through the use of the wildcard (*) convention of naming endpoints.

When an RSIP is sent to call agents, VISM/VISM-PR expects an acknowledgment. If no acknowledgment is received after a timeout period, the RSIP is sent again. This process is repeated a number of times, after which, if no acknowledgment is received, an acknowledgment is assumed.

You can configure both the timeout period and the number of retries with the **cnfxgpretry** command.

Connection Admission Control

The VISM/VISM-PR connection admission control (CAC) feature calculates the effect of a new call on the bandwidth utilization of the ATM PVC before a new call is either admitted or rejected.

Each call requires a connection between two endpoints and requires a certain amount of bandwidth. Bandwidth is expressed as cells per second (cps) and depends upon the following:

- Encapsulation method
- Coding/compression method
- Enabled/disabled VAD

CAC maintains a table of all currently active calls and their bandwidth requirements. When a new call is requested, CAC calculates the total bandwidth requirements of all the current calls and adds the bandwidth required by the newly requested call. The new total is then compared with the preprovisioned bandwidth (cps) of the ATM PVC.

If the new bandwidth total exceeds the preprovisioned bandwidth of the PVC, the call request is rejected. If the new bandwidth total is less than or equal to the preprovisioned bandwidth of the PVC, the call is accepted.

You can specify the values of the following VAD parameters in the CAC algorithm:

- Over-subscription drop ratio
- Voice duty cycle

VAD parameter specification allows the CAC algorithm to take into account the bandwidth savings of VAD and improves the CAC decision-making process. You can specify the values of these parameters at the card level and at the logical channel level. The default condition is for CAC to be enabled.

Embedded VISM/VISM-PR Management Functions

VISM/VISM-PR management tools allow you to do the following:

- Configure VISM/VISM-PR features
- Provision connections
- Display VISM/VISM-PR configurations
- Display VISM/VISM-PR statistics

Use any of the following tools to manage and configure the VISM/VISM-PR card:

- CLI—See [Chapter 6, “Configuring the VISM/VISM-PR,”](#) for a description of how to configure VISM/VISM-PR using the CLI. See [Chapter 7, “CLI Commands,”](#) for a description of the syntax for each CLI command.
- Third-party Simple Network Management Protocol (SNMP) manager—Permits you to display and manipulate the individual MIB objects.

- Cisco WAN Manager (CWM) program—Provides a graphics-based interface on a UNIX workstation.

Figure 5-12 shows an example of a CWM VISM Card Config screen with the card elements displayed.

Figure 5-12 VISM Card Config Screen—Card Elements Display

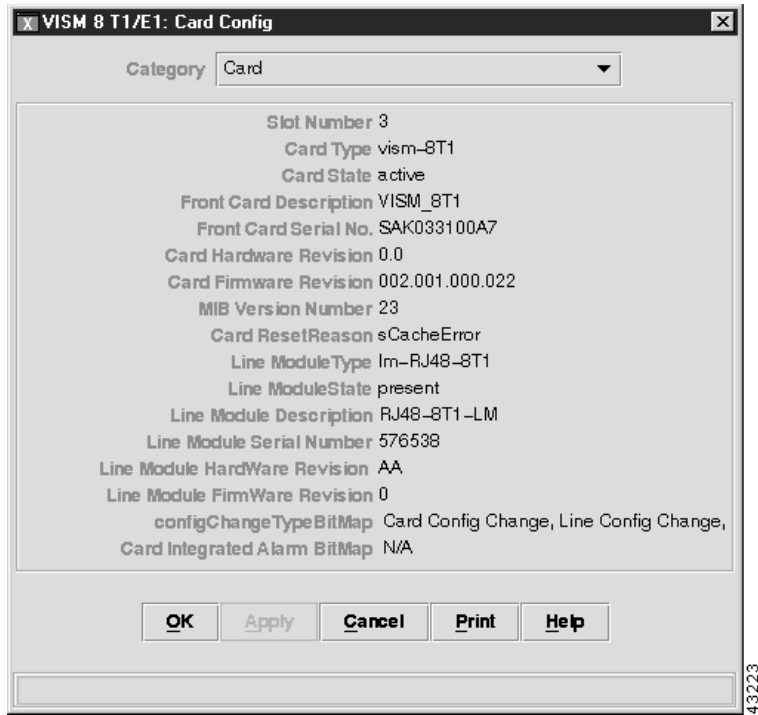


Figure 5-13 shows an example of a CWM VISM Card Config screen with the VISM features displayed.

Figure 5-13 VISM Card Config Screen—VISM Features Display

The screenshot shows a dialog box titled "VISM 8 T1/E1: Card Config" with a "Category" dropdown set to "VISM Features". The configuration parameters are as follows:

IP Address	0. 0. 0. 0
SubNet Mask	0. 0. 0. 0
Daughter Card Serial Num	SAK0332001Z
Daughter Card Desc	28-02905-01
Daughter Card HW Rev	04
DSP Health	100
Ecan Encoding	mu-law
Ecan Idle Pattern	pattern3
Ecan Idle Dir	both
Comp Packet Size	80
Echo Return Loss	sixdb
Packetization Period	tenms
Jitter Delay Mode	fixed
Jitter Initial Delay	sixty
Adaptave Gain Control	off
Switching Mode	voipSwitching
CAC enable/disable	enable
Available DSO endpoints	192
Codec Template Selection	2

At the bottom of the dialog box are buttons for OK, Apply, Cancel, Print, and Help. A small number "43254" is visible in the bottom right corner of the dialog box.

Refer to the *WAN CiscoView for the MGX 8250* for more information on using CWM.

All three VISM management tools allow you to access and manipulate the VISM/VISM-PR Management Information Bases (MIBs) that contain all VISM/VISM-PR configuration settings, operating modes, and statistics.



Configuring VISM/VISM-PR Features

The command line interface (CLI) is a DOS-like interface used to configure VISM/VISM-PR cards. This chapter describes the following sections:

- “Using the Command Line Interface” section on page 6-1
- “Connecting to Cisco MGX 8000 Series Platforms” section on page 6-2
- “Configuring the VISM/VISM-PR” section on page 6-5

Using the Command Line Interface

CLI commands may be followed by a string of required or optional argument identifiers and argument values.

The entire string, from the command to the last argument value, is referred to as a command line. Spaces are used to separate all elements in a command line. Type the command, any necessary argument identifiers and argument values, then press **Enter**.



Note

You must press the **Enter** key at the end of all CLI command lines to complete the command.

For example, the Add Endpoint command, **addendpt**, adds an endpoint to VISM/VISM-PR and has three required arguments. An endpoint defines one end of a connection. The **addendpt** command format is as follows:

```
addendpt <endpt_num> <ds1_num> <ds0_num>
```

When you type a command, use argument values to represent the arguments. For example, to add an endpoint with number 10 on DS1 number 4 and DS0 number 3, the command line is as follows:

```
addendpt 10 4 3
```

Some commands require you to type an argument identifier before the argument value. For example, the Clear Alarm command, **clralm**, requires you to enter an identifier, **-ds1**, before the argument value. The **clralm** command format is as follows:

```
clralm -ds1 <LineNum>
```

To clear alarms on line 4, the command line is as follows:

```
clralm -ds1 4
```

VISM/VISM-PR Command Attributes

Use the information in [Table 6-1](#) to determine the log file attributes, VISM/VISM-PR card state requirements for command use, and personnel privileges for all VISM/VISM-PR commands.

Table 6-1 VISM/VISM-PR Command Attributes—Log File, Card State, and Privilege Level

Commands that begin with...	...write to the log file?	...are usable in what state?	...can be used by personnel with what privilege level?
? ¹	No	All	All
add	Yes	Active	1
cc ¹	Yes	All	All
chkflash ¹	Yes	Active	1
clr	No	Active	1 to 5
cnf	Yes	Active	1
del	Yes	Active	1
dsp	No	Active	All
Help ¹	No	All	All
pingIndsp ¹	No	Active	All
tst	No	Active	All
version ¹	No	Active	All

1. The text shown represents the complete CLI command name.



Note

For a complete description of the CLI commands in this chapter, see [Chapter 7, “CLI Commands.”](#)

Connecting to Cisco MGX 8000 Series Platforms

This section contains the following topics:

- [Overview, page 6-2](#)
- [Logging In to PXM and VISM/VISM-PR Cards, page 6-3](#)
- [Logging Out of VISM/VISM-PR and PXM Cards, page 6-5](#)

Overview

The VISM card operates in the following MGX 8000 Series platforms:

- Cisco MGX 8850 (PXM1), wide area switch
- Cisco MGX 8250, edge concentrator
- Cisco MGX 8230, edge concentrator

The VISM-PR card operates in the following MGX 8000 Series platforms:

- Cisco MGX 8850 (PXM1), wide area switch
- Cisco MGX 8250, edge concentrator
- Cisco MGX 8230, edge concentrator
- Cisco MGX 8830
- Cisco MGX 8850 (PXM1E and PXM45) platforms

Each platform contains a Processor Module (PXM) back card. Connect your CLI command administration terminal or workstation to the PXM back card control port—locally or remotely through a modem.

For more information about connecting to PXM1E or PXM45 cards, refer to the *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Software Configuration Guide*.

For more information about connecting to PXM1 cards, refer to the *Cisco MGX 8850 Multiservice Switch Installation and Configuration Guide*.

**Note**

The MGX 8000 Series platform PXM back card contains all connections for managing VISM/VISM-PR cards. The VISM/VISM-PR card itself has no physical management ports.

Use any of the following devices to connect to a PXM back card:

- A simple alphanumeric terminal (such as a DEC VT100 or equivalent) connected to the control port of the MGX 8000 Series platform PXM back card.
- A computer emulating an alphanumeric terminal (such as the Microsoft Windows Hyper Terminal program) connected to the control port of the MGX 8000 Series platform PXM back card.
- A computer running a Telnet session over Ethernet and connected to the LAN port on the MGX 8000 Series platform PXM back card.

Logging In to PXM and VISM/VISM-PR Cards

To log in to the PXM and VISM/VISM-PR cards, complete the following steps:

**Note**

Except where noted, the use of PXM refers to the three different PXM cards (PXM1, PXM1E, and PXM45).

Step 1

Connect your terminal or workstation to the PXM back card via one of the methods listed in the above bullets.

The login prompt is displayed:

Login:

Step 2 At the prompt, type your user name.



Note The default user name is **cisco**. You can change this username after you complete the initial login. Consult the system administrator for valid user names.

The password prompt is displayed:

```
password:
```

Step 3 At the prompt, type your password.

For security, the password is displayed as asterisks:

```
password: *****
```



Note The default password is **cisco**. You can change this password after you complete the initial login. Consult the system administrator for valid passwords.

For PXM1E or PXM45 cards, the active PXM card is automatically displayed:

```
PXM1E_SJ.7.PXM.a >
```

For PXM1 cards, the following prompt is displayed:

```
card number [7]:
```

Step 4 To go to the active PXM1 card, press **enter** or **return**.

```
NODENAME.1.7.PXM.a >
```

Step 5 To display the available cards, enter the **dspecds** command.

A list of available card types and associated states is displayed for the MGX 8000 Series platform with which you are connected. The display is similar to the following for all of the PXM cards:

```
NODENAME.1.7.PXM.a > dspecds
```

Slot	CardState	CardType	CardAlarm	Redundancy
1.1	Empty		Clear	
1.2	Active	VISM-8T1	Clear	
1.3	Empty		Clear	
1.4	Empty		Clear	
1.5	Empty		Clear	
1.6	Empty		Clear	
1.7	Active	PXM1-OC3	Minor	
1.8	Empty		Clear	
1.9	Active	VISM-8E1	Clear	
1.10	Empty		Clear	
1.11	Active	VISM-8T1	Clear	
1.12	Boot	VISM-8T1	Clear	
1.13	Active	VISM-8T1	Clear	
1.14	Active	VISM-8E1	Clear	
1.15	Empty		Clear	
1.16	Empty		Clear	
1.17	Empty		Clear	
1.18	Empty		Clear	
1.19	Empty		Clear	
1.20	Empty		Clear	
1.21	Boot	VISM-8T1	Clear	
1.22	Empty		Clear	


```

1.25 Reserved      VISM-8E1      Clear
1.26 Empty
1.27 Empty
1.28 Active        VISM-8E1      Clear
1.29 Empty
1.30 Empty
1.31 Empty
1.32 Empty
NODENAME.1.7.PXM.a >

```

Step 6 Identify, from the list displayed in [Step 5](#), the slot number of the VISM/VISM-PR card you want to configure.

Step 7 To change to the VISM/VISM-PR card you identified in [Step 6](#), enter the `cc` command (to change card), with the corresponding VISM/VISM-PR card slot number.

The VISM/VISM-PR card prompt is displayed when you successfully log in to a VISM/VISM-PR card and has the following format:

```
NODENAME.1.9.VISM8.a
```

The VISM/VISM-PR card prompt contains the following data:

- Name of the MGX 8000 Series platform to which you are connected
- Number of the shelf—always 1
- Slot number
- Card type
- Card state—active (a) or standby (s)

You have completed logging in to the PXM and VISM/VISM-PR cards and can now perform the mandatory initial VISM/VISM-PR card configuration.

Logging Out of VISM/VISM-PR and PXM Cards

To log out of the VISM/VISM-PR and PXM cards, enter one of the following commands:

- `bye`
- `logout`

Configuring the VISM/VISM-PR

The CLI allows you to configure all features and functions of VISM/VISM-PR.

Configure mandatory commands when you require argument values that are different from the default. Configure optional commands when necessary.

For a list of initial configuration commands for each operating mode, see [Table 6-2](#).

Perform the following tasks with CLI commands to enable your VISM/VISM-PR card applications:

1. [Initial Configuration of the VISM/VISM-PR Card, page 6-9](#)
2. [Configuring the TDM Side, page 6-14](#)

3. Configuring Bearer Processing



Note Configure one type of signaling—CAS or CCS—for each application.

4. Configuring the ATM Network Side

5. Configuring the Call Agent Interface



Note If you are using a VoIP or an AAL2 trunking application, do not configure a call agent interface.

Table 6-2 Mandatory Initial VISM Configuration Command Sequence for All Operating Modes

Operating Mode	Command	Notes
VoIP Switching	cnfvismmode¹	—
	cnfvismip	—
	addport	—
	addrscrptn	—
	adddn	—
	adddnip	Use this command if you are not using an external DNS.
	addmgc	—
	addmgcgrpentry	—
	cnfcac	—
	addln	—
	cnflnsig	—
	addendpt	—
	addcon	—
	cnftftpdn	—
	addcasvar	—
	cnfcasendpt	—
	addmgcgrpprotocol	—
cnfdnssrvr	Use this command if you are using an external DNS.	

Table 6-2 Mandatory Initial VISM Configuration Command Sequence for All Operating Modes (continued)

Operating Mode	Command	Notes
VoIP Trunking	cnfvismmode¹	—
	addport	—
	addrscrtn	—
	addcon	—
	cnfvismip	—
	addln	—
	cnflnsig	—
	addendpt	—
	addrtpcon	—
AAL2 Trunking	cnfvismmode¹	—
	addport	—
	addrscrtn	—
	cnfcac	—
	addln	—
	cnflnsig	—
	addendpt	—
	addcon	—
	addcid	—
	addccs	—
AAL1 Switching	cnfvismmode¹	—
	cnfvismip	—
	addport	—
	addrscrtn	—
	addcon	—
	adddn	—
	adddnip	—
	addmgc	—
	addmgcgrpentry	—
	addmgcgrpprotocol	—
	cnfvismdn	—
	addln	—
	addendpt	—

Table 6-2 Mandatory Initial VISM Configuration Command Sequence for All Operating Modes (continued)

Operating Mode	Command	Notes
Switched AAL2 SVC	cnfvismmode ¹	—
	cnfvismip	—
	addport	—
	addrscrtn	—
	addcon	—
	adddn	—
	adddnip	—
	addmgc	—
	addmgcgrpentry	—
	addmgcgrpprotocol	—
	cnfvismdn	—
	addln	—
	addendpt	—
Switched AAL2 PVC	cnfvismmode ¹	—
	cnfvismip	—
	addport	—
	addrscrtn	—
	addmgc	—
	cnfcac	—
	addln	—
	cnflnsig	—
	addendpt	—
	addcon	—
	adddn	—
	cnftftpdn	—
	addcasvar	—
	cnfcasendpt	—
	cnfconvcci	—

1. The **cnfvismmode** command may be mandatory or optional, depending upon the operating mode with which the VISM card is seen as displayed on your terminal. A VISM card that is not configured is initially displayed in the VoIP operating mode. Subsequent accesses to the VISM card result in the card being displayed in the VoIP operating mode or in the operating mode you have last configured for the card. If the card is displayed as being in the wrong operating mode, the **cnfvismmode** command is mandatory to change the operating mode. Use the **dspvismparam** command to verify the VISM card's current operating mode.

Initial Configuration of the VISM/VISM-PR Card

You must complete the following configuration tasks when you initially configure your VISM/VISM-PR card.

1. [Configuring the Operating Mode, page 6-9](#)
2. [Allocating Resources, page 6-10](#)
3. [Configuring Connection Admission Control, page 6-11](#)
4. [Placing the VISM Card In Service, page 6-13](#)
5. [Placing the VISM Card Out of Service, page 6-13](#)

Configuring the Operating Mode

To configure the correct operating mode for your VISM/VISM-PR card, complete the following steps immediately after you apply power:

- Step 1** To determine the current VISM/VISM-PR operating mode, enter the **dspvismparam** command.

```
PXM1E_SJ.1.28.VISM8.a > dspvismparam
```

```
VISM mode:                voipSwitching/voipTrunking
VISM features Bit Map:    0x5bc
FunctionModuleType:      VISM-PR-8T1
CAC flag:                 enable
DS0s available:          192
Template number:         2
Percent of functional DSPs: 100
IP address:               172.29.52.229
Subnet mask:              255.255.255.0
Bearer IP address:       0.0.0.0
Bearer Subnet mask:      0.0.0.0
RTCP report interval:    5000 msec
RTCP receive multiplier: 3
RTP receive timer:       disable
ControlPrecedence/Tos:   0x60
BearerPrecedence/Tos:    0xa0
Aal2 muxing status:      disable
Tftp Server Dn           cisco.com
Aggregate Clipping       enable
Aggregate Svc Bandwidth  50
```

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



Note A new VISM/VISM-PR card (one that has not been configured) is displayed by default in VoIP switching/VoIP trunking operating mode.

- Step 2** If the VISM/VISM-PR card operating mode displayed in [Step 1](#) is correct for your application, proceed to the [“Allocating Resources”](#) section on page 6-10.

If the VISM/VISM-PR card operating mode displayed in [Step 1](#) is not correct for your application, proceed to [Step 3](#).

- Step 3** To configure the VISM/VISM-PR operating mode, enter the **cnfvismmode** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfvismmode <mode_number>
```

Replace *<mode_number>* with one of the following values:

- 1 = VoIP switching/VoIP trunking
- 2 = AAL2 trunking
- 3 = Switched AAL1 SVC
- 7 = Switched AAL2 SVC
- 8 = Switched AAL2 PVC
- 9 = VoIP and Switched AAL1 SVC
- 10 = VoIP Trunking and AAL2 Trunking

Step 4 Type a **y** at the following message:

```
WARNING: Available CLI Commands will be changed, do you want to proceed (Yes/No)? y
```

A message about the number of available commands displays before the card returns the prompt. The following example shows the number of available commands for AAL2 trunking mode:

```
INFORMATION: The new 'aal2Trunking' mode has 188 CLI commands.
```

You have completed configuring the operating mode for your VISM/VISM-PR card. Proceed to the [“Allocating Resources”](#) section on page 6-10.

Allocating Resources

To allocate resources—virtual ports, controller resources, and codec templates—to your VISM/VISM-PR card, complete the following steps.

Step 1 To add a virtual port, enter the **addport** command (no arguments).

This command adds an ATM port on a VISM/VISM-PR card. This command does not have arguments. When you add the ATM port, the bandwidth, VPI range, and VCI range are determined.

The VPI range is a single VPI value, the slot ID. The added port is not detected by the controller until you create a resource partition (see [Step 2](#)).

Step 2 To specify the controller resources, enter the **addrscrptn** command.

```
PXM1E_SJ.1.28.VISM8.a > addrscrptn <controller_id>
```

Replace *<controller_id>* with a value **1**.



Note Always specify the *<controller_id>* argument value as **1**.

A port can be controlled by more than one controller (for example PNNI and PAR), but supports only one controller at a time. VISM/VISM-PR can create one resource partition for each controller in a non-overlapping way. The controller number you specify associates a resource partition to a controller. All resources of a port are associated with the resource partition you specify. When you add a resource partition, the associated controller detects the port as limited by the resource partition.

Step 3 To specify the codec template used with your VISM/VISM-PR card, enter the **cnfcodectmpl** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcodectmpl <template_number>
```

Replace `<template_number>` with one of the following values:

- 1 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, and G.729ab codecs, and clear channel



Note Template 1 is not supported for the VoIP operating mode.

- 2 = G.711u and G.711a uncompressed codecs, and clear channel
- 3 = G.711u, G.711a, G.726-16k, G.726-24k, G.726-32k, G.726-40k, G.729a, and G.729ab codecs and clear channel



Note Codec template number 3 = template number 1 with T.38 support added. Maximum channels = 120.

- 4 = G.711u, G.711a, G.726-16k, G.726-24k, G.726-32k, G.726-40k, G.729a, G.729ab, G.723.1-H, G.723.1a-H, G.723.1-L, G.723.1a-L codecs and clear channel



Note Template 4 supports a maximum of 64 channels for VISM, and a maximum of 144 channels for VISM-PR. The G.723.1 codecs are not supported for the VISM card.

- 5 = G.711u, G.711a, G.726-16k, G.726-24k, G.726-32k G.726-40k, G.729a, G.729ab, and lossless codecs, and clear channel

Step 4 Type a **y** at the following message:

```
The card will be reset, do you want to proceed (Yes/No)? y
```

The card resets and returns the prompt.

Configuring Connection Admission Control

Complete the following steps, which allow you to:

- Define CAC parameters.
- Configure voiceband data policies for fax/modem carrier loss and fax/modem CAC failure events.

Step 1 To ensure that CAC is enabled, enter the **dspvismparam** command.

```
PXM1E_SJ.1.28.VISM8.a > dspvismparam

VISM mode:                aal2Trunking
VISM features Bit Map:    0x2b2
FunctionModuleType:      VISM-8T1
CAC flag:                 enable
DSOs available:          24
Template number:         3
Percent of functional DSPs: 100
IP address:               11.11.11.1
Subnet mask:              255.255.255.248
Bearer IP address:        15.15.15.1
Bearer Subnet mask:       255.255.255.248
RTCP report interval:    5000 msec
```

```

RTCP receive multiplier:      3
RTP receive timer:          disable
ControlPrecedence/Tos:      0x20
BearerPrecedence/Tos:       0x40
Aal2 muxing status:         disable
Tftp Server Dn              TFTPDOMAIN
Aggregate Clipping          enable
Aggregate Svc Bandwidth     0

```



Note By default, CAC is enabled. For information on disabling CAC, see the `cnfcac` command description in [Chapter 7, “CLI Commands.”](#)

Step 2 To configure card level CAC parameter values for voice activity detection (VAD) duty cycle and VAD tolerance, which are used in CAC algorithms, enter the `cnfcacparams` command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcacparams <VAD_duty_cycle> <VAD_Tolerance>
```

Replace the above arguments with the values listed in [Table 6-3](#). The following example shows the typical values for VAD duty cycle and VAD tolerance:

```
PXM1E_SJ.1.28.VISM8.a > cnfcacparams 61 100
```

Table 6-3 Parameters for `cnfcacparams` Command

Parameter	Description
<i>VADDutyCycle</i>	<p>VAD duty cycle is the ratio of speech and holdover duration to total duration expressed as a percentage.</p> <p>Holdover is the period after silence begins and silence suppression is turned on. In VISM/VISM-PR, the holdover time is 250 ms.</p> <p>A typical value for this parameter is 61 which means that 61% of the time is taken by speech and holdover. Range is 1–99. Default is 61.</p>
<i>VADTolerance</i>	<p>VAD tolerance is the expression for VAD “over-subscription drop ratio” where: tolerance = 10000 x over-subscription drop ratio (expressed as a percentage).</p> <p>A typical value for VAD tolerance is 100. Some examples are:</p> <ul style="list-style-type: none"> • 10000 (tolerance) = 1% (over subscription drop ratio) • 100 = 0.01% (Default) • 10 = 0.001% • 1 = 0.0001% <p>Range is 0–10000.</p>

Step 3 To configure VAD tolerance and VAD duty cycle for a specific logical connection number (LCN) used for PVCs, enter the `cnfconcacparams` command.

```
PXM1E_SJ.1.28.VISM8.a > cnfconcacparams <LCN> <VADTolerance> <VADDutyCycle>
```


Replace *<LCN>* with the logical channel number, in the range 131–510. Replace *<VADTolerance>* and *<VADDutyCycle>* with the values listed in [Table 6-3](#). The following example shows the typical values for VAD tolerance and VAD duty cycle on LCN 131:

```
PXM1E_SJ.1.28.VISM8.a > cnfconcacparams 131 100 61
```

Step 4 To specify card level default policies for a fax/modem carrier loss and a fax/modem CAC failure, enter the **cnfvbdpol** command.

**Note**

This command is not applicable in the AAL1 switching mode.

```
PXM1E_SJ.1.28.VISM8.a > cnfvbdpol <sysCarrLossPol> <sysCacRejPol>
```

Replace the above arguments with the values listed in [Table 6-4](#).

Table 6-4 Parameters for cnfvbdpol Command

Parameter	Description
<i>sysCarrLossPol</i>	Card level carrier loss policy. <ul style="list-style-type: none"> • 1 = Revert to the previous codec. • 2 = Maintain the upspeed codec.
<i>sysCacRejPol</i>	Card level CAC reject policy. <ul style="list-style-type: none"> • 1 = Delete the connection. • 2 = Maintain the connection and revert to the previous codec.

You have completed configuring CAC on your VISM/VISM-PR card. Proceed to the [“Placing the VISM Card In Service”](#) section on page 6-13

Placing the VISM Card In Service

Type the **cnfgwis** command and press **Enter** to place the VISM card in service. The VISM card prompt terminates with an *a* to indicate the in-service state:

```
NODENAME.1.9.VISM8.a
```

**Note**

This command is not available in the AAL2 trunking mode.

Placing the VISM Card Out of Service

Type the **cnfgwoos** command, a *oos-method* argument value, and press **Enter** to place the VISM card out of service. Specify the *oos-method* argument with one of the following values:

- 2—Forceful
- 3—Graceful

The VISM card prompt terminates with an *s* to indicate the out-of-service (standby) state:

```
NODENAME.1.9.VISM8.s
```


Note

This command is not available in the AAL2 trunking mode.

Configuring the TDM Side

Perform the following tasks to configure the TDM side of your networking application:

1. [Configuring T1 and E1 Lines, page 6-14](#)
2. [Placing T1 and E1 Lines In Service, page 6-18](#)
3. [Placing T1 and E1 Lines Out of Service, page 6-18](#)
4. [Configuring the PXM1 and VISM/VISM-PR Cards Clocking Source, page 6-18](#)
5. [Configuring the PXM1E or PXM45 Card as Clocking Source, page 6-22](#)
6. [Configuring DS0 Channels, page 6-22](#)
7. [Add DS0 Endpoints to Lines, page 6-22](#)
8. [Configuring TDM Side Signaling for Applications Using CCS, page 6-27](#)
9. [Configuring TDM Side Signaling for Applications Using CAS, page 6-31](#)

Configuring T1 and E1 Lines

This section deals with the configuration of the eight physical T1/E1 ports on the VISM/VISM-PR back card or, if bulk distribution is used, the equivalent ports being fed from the Service Resource Module (SRM) card.

Complete the following steps to:

- Add and configure your eight T1 or E1 line ports on the VISM/VISM-PR back card.
- Add and configure your eight T1 and E1 line ports on the SRM card if your application requires bulk distribution.


Note

Configure the DS0s on a line after you add and configure the line.

Step 1 To add a line to your VISM/VISM-PR card, enter the **addln** command with the following argument.

```
mgx8850.1.12.VISM8.a > addln <line_number>
```

Replace *<line_number>* with a value in the range 1–8. This example shows adding line 1.

```
mgx8850.1.12.VISM8.a > addln 1
```

Step 2 To configure signaling on the line, enter the **cnflnsig** command with the following arguments:

```
mgx8850.1.12.VISM8.a > cnflnsig <line_number> <signaling_type>
```

Replace *<line_number>* with the value of the line you added in [Step 1](#).

Replace *<signaling_type>* with one of the following values:

- 1 = CAS
- 2 = CCS
- 3 = No signaling

This example shows configuring line 1 with CAS.

```
mgx8850.1.12.VISM8.a > cnflnsig 1 1
```



Note If you choose CAS signaling for a VISM/VISM-PR E1 line, the supported operating modes are AAL2 trunking and VoIP trunking.

Step 3 To configure the parameters of the line you added, enter the **cnfln** command with the following arguments:

```
mgx8850.1.12.VISM8.a > cnfln <line_number> <line_code> <line_length> <clk_src> <line_type>
<loopback_detection> [circuit_identifier]
```

Replace the above arguments with the values listed in [Table 6-5](#) for the **cnfln** parameters. This example shows the recommended E1 parameters.

```
mgx8850.1.12.VISM8.a > cnfln 1 3 9 2 7 1
```

Table 6-5 Parameters for cnfln Command

Parameter	Description
<i>line_number</i>	Line number in the range 1–8.
<i>line_code</i>	Line coding method. <ul style="list-style-type: none"> • 2 = B8ZS (T1) • 3 = HDB3 for E1 lines • 4 = AMI for T1 or E1 lines
<i>line_length</i>	Line length. <ul style="list-style-type: none"> • 8 = AX-SMB-8E1 and AX-R-SMB-8E1 back card types • 9 = AX-RJ48-8E1 and AX-R-RJ48-8E1 back card types • 10 = T1 for 000–131 ft. • 11 = T1 for 131–262 ft. • 12 = T1 for 262–393 ft. • 13 = T1 for 393–524 ft. • 14 = T1 for 524–655 ft. • 15 = T1 for 655 and greater ft.
<i>clk_src</i>	Clock source. <ul style="list-style-type: none"> • 1 = Loop clock • 2 = Local clock

Table 6-5 Parameters for cnfln Command (continued)

Parameter	Description
<i>line_type</i>	Line type. Use one of the following values for E1 lines: <ul style="list-style-type: none"> • 1 = dsx1ESF • 2 = dsx1D4 • 3 = E1 • 4 = E1CRC • 5 = E1MF • 6 = E1MFCRC • 7 = E1 Clear • 8 = E1Q50 • 9 = E1Q50CRC
<i>loopback_detection</i>	Loopback detection. <ul style="list-style-type: none"> • 1 = Disabled • 2 = Enabled (This value is not applicable to E1 lines.)
<i>circuit_identifier</i>	(Optional) Name of the circuit in ASCII format. Range is 1–64 characters.

Step 4 To configure a line for alarm condition handling, enter the **cnfalm** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfalm -dsl <LineNum> -red <RedSeverity> -rai <RAISeverity> -neu
<NEAlarmUpcount> -ned <NEAlarmDncount> -net <NEAlarmThreshold> -feu <FEAlarmUpcount> -fed
<FEAlarmDncount> -fet <FEAlarmThreshold>
```

Replace the above arguments with the values listed in [Table 6-6](#).

Table 6-6 Parameters for cnfalm Command

Parameter	Description
<i>LineNum</i>	Line number in the range 1–8.
<i>RedSeverity</i>	Red alarm severity level. <ul style="list-style-type: none"> • 1 = Minor • 2 = Major
<i>RAISeverity</i>	Remote alarm indicator severity level. <ul style="list-style-type: none"> • 1 = Minor • 2 = Major
<i>NEAlarmUpcount</i>	Near end alarm up count. Range is 1–65535 ms.
<i>NEAlarmDncount</i>	Near end alarm down count. Range is 1–65535 ms.
<i>NEAlarmThreshold</i>	Near end alarm threshold. Range is 1–65535 ms.
<i>FEAlarmUpcount</i>	Far end alarm upcount. Range is 1–65535 ms.

Table 6-6 Parameters for cnfalrm Command (continued)

Parameter	Description
<i>FEAlarmDncount</i>	Far end alarm down count. Range is 1–65535 ms.
<i>FEAlarmThreshold</i>	Far end alarm threshold. Range is 1–65535 ms.

Step 5 To enable or disable trunk conditioning on a line, enter the **cnflntrunkcond** command.



Note This command is not applicable to the AAL1 switching and switched AAL2 SVC modes.

```
PXM1E_SJ.1.28.VISM8.a > cnflntrunkcond <line_number> <trunkCondType>
```

Replace *<line_number>* with a value in the range 1–8.

Replace *<trunkCondType>* with one of the following values:

- 1 = Enable
- 2 = Disable

If you enable trunk line conditioning, VISM/VISM-PR conditions the affected DS0 when an alarm indication signal (AIS) is detected on the ATM side. Trunk line conditioning consists of transmitting an idle code pattern for 2.5 seconds followed by the seized code specified in the **cnfcascode** command.



Note This command is not allowed if endpoints or CCS channels are enabled on the line.

Step 6 To set a specified line to the local loopback state, enter the **addlnloop** command.

```
PXM1E_SJ.1.28.VISM8.a > addlnloop <line_number>
```

Replace *<line_number>* with the line in which you want the local loopback, in the range 1–8.

Use the **dellnloop** command to remove the local loopback state on a VISM/VISM-PR line.



Note The VISM CLI does not have a command for setting a line to the remote loopback state. Use the **cnfbert** command on the PXM1, PXM1E, and PXM45 cards to set a line to the remote loopback state.

Step 7 To display the values of the line, enter the **dspln** command with the *line_number* (1) argument value.

```
mgx8850.1.12.VISM8.a > dspln 1
```

The following example shows some of the sample output from the **dspln** command:

```
LineNum:                1
LineConnectorType:      RJ-48
LineEnable:              Modify
LineType:                dsx1E1CLEAR
LineCoding:              dsx1HDB3
LineLength:              G.703 120 ohm
LineXmtClockSource:     LocalTiming
LineLoopbackCommand:    NoLoop
LineSendCode:           NoCode
LineUsedTimeslotsBitMap: 0xffffffffe
LineLoopbackCodeDetection: codeDetectDisabled
LineSignalingType:      CCS
```

```

LineCcsChannels:          0x0
LineTrunkConditioning:    disable
CircuitIdentifier:
TxDigitOrder:             aniThenDnis
TonePlanRegion:
TonePlanVersion:         0
RingingTO:                180
RingBackTO:              180
BusyTO:                   30
Type <CR> to continue, Q<CR> to stop:
ReorderTO:                30
DialTO:                   16
StutterDialTO:           16
OffHookAlertTO:          5
RemoteRingbackMethod:    proxy
LineNumOfValidEntries:   8

```

Placing T1 and E1 Lines In Service

To place a T1 or E1 line in service, enter the **cnflnis** command with the *<line_number>* in the range 1–8.



Note

This command is not applicable to VoIP trunking/AAL2 trunking and AAL2 trunking modes.

Placing T1 and E1 Lines Out of Service

To place a T1 or E1 line out of service, enter the **cnflnoos** command.

```
PXM1E_SJ.1.28.VISM8.a > cnflnoos <line_number> <shutdown_method>
```

Replace *<line_number>* with a value in the range 1–8.

Replace *<shutdown_method>* with one of the following values:

- 2 = Forceful shutdown (non-graceful)
- 3 = Graceful shutdown



Note

This command is not applicable to VoIP trunking/AAL2 trunking and AAL2 trunking modes.

Configuring the PXM1 and VISM/VISM-PR Cards Clocking Source

Complete the following steps to configure the clocking source on your PXM1 and VISM/VISM-PR cards.



Note

See [Appendix A, “VISM/VISM-PR Card Clocking Options,”](#) and the “[Expanded Clock Source Selection](#)” section on page 6-93 for additional instructions on using the commands and specifying argument values to configure the clocking source on your PXM and VISM/VISM-PR cards.

Step 1

To determine the single clock source, examine the entire configuration of the MGX 8000 Series platform.

The type of equipment connected to the VISM/VISM-PR T1 or E1 lines might dictate this choice. If the selected clock source is from one of the VISM/VISM-PR T1 or E1 lines, that line must be connected to port 1 of the VISM/VISM-PR back card. For more information on VISM/VISM-PR back cards and port locations, see [Figure 2-3 on page 2-4](#).

Step 2 To configure the PXM1 card clock source, change card (**cc**) to the active PXM1 card.

Step 3 Enter the **cnfclksrc** command.

```
M8850_R1.1.7.PXM.a > cnfclksrc <slot.port> <clktyp> [-bits e1|t1]
[-revertive <enable|disable>]
```

Replace *<slot.port>* with the following values:

- *slot* = 7, 8 or 1, 2
- *port* = 1–*n*



Note Ensure that you type the period with no spaces on either side, between the *slot* and *port* argument values.

Replace *<clktype>* with one of the following values:

- P = Primary
- S = Secondary
- T = Tertiary
- N = Null (no external clocking source; use the PXM card's internal crystal)

Specify the **cnfclksrc** command argument values according to the following rules:

- If the clock source is the external BITS clock (a T1 or E1 port on the PXM1 back card), specify the configuration as:

```
cnfclksrc 7.35 P
```



Note Type **7** for the slot number regardless of the PXM card's location in the chassis. Type **35** for the port number—the BITS port is always port 35.

- If the clock source is an external signal on one of the PXM OC3 ports, specify the configuration as:

```
cnfclksrc 7.n P
```



Note Type **7** for the slot number regardless of the PXM card's location in the chassis. The *n* port parameter value is the OC3 port number in the range 1 to 4.

- If the clock source is the PXM's internal crystal and no other clock source has been specified, do not configure the clock source. The crystal is the automatic default.
- If you want to change the clocking source from external to the PXM card's internal crystal, specify the configuration as:

```
cnfclksrc 7.X N
```



Note Type **7** for the slot number regardless of the PXM card's location in the chassis. The X argument value is either 35 or the OC3 port number, depending upon which is the currently specified source. The null port number argument value cancels the previous configuration and returns the clocking source to the default internal crystal.

- If the clock source is from a line on a VISM card, specify the configuration as:

```
cnfclksrc y.1 P
```



Note The y argument value is the actual slot number of the VISM card. Always type **1** for port argument value, which represents the line number in this configuration. VISM-PR cards do not have this requirement.

Step 4 Change card (**cc**) to your VISM/VISM-PR card.

Step 5 To configure the clocking option defined in [Step 3](#) on your VISM/VISM-PR card, enter the **cnfln** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfln <line_number> <line_code> <line_length> <clk_src>
<line_type> <loopback_detection> [circuit_identifier]
```



Note You must include all argument values when using the **cnfln** command; however, the *<line_number>* and *<clk_src>* are the only relevant arguments for configuring the clocking source on your VISM/VISM-PR cards.

Replace the above arguments with the values listed in [Table 6-7](#) for the **cnfln** parameters.

Table 6-7 Parameters for cnfln Command

Parameter	Description
<i>line_number</i>	Line number in the range 1–8.
<i>line_code</i>	Line coding method. <ul style="list-style-type: none"> • 2 = B8ZS (T1) • 3 = HDB3 for E1 lines • 4 = AMI for T1 or E1 lines
<i>line_length</i>	Line length. <ul style="list-style-type: none"> • 8 = AX-SMB-8E1 and AX-R-SMB-8E1 back card types • 9 = AX-RJ48-8E1 and AX-R-RJ48-8E1 back card types • 10 = T1 for 000–131 ft. • 11 = T1 for 131–262 ft. • 12 = T1 for 262–393 ft. • 13 = T1 for 393–524 ft. • 14 = T1 for 524–655 ft. • 15 = T1 for 655 and greater ft.

Table 6-7 Parameters for *cnfln* Command (continued)

Parameter	Description
<i>clk_src</i>	<p>Clock source.</p> <ul style="list-style-type: none"> 1 = Loop clock—Clocking comes from the T1/E1 line. <p>Note If the clocking source is from a line on your VISM/VISM-PR card, you must configure that line—which must be line 1—as loop clock. Configure all remaining lines on all remaining VISM/VISM-PR cards as local.</p> <ul style="list-style-type: none"> 2 = Local clock—Clocking comes from the PXM1 card. <p>Note If the clocking source to the VISM/VISM-PR cards is from the PXM card, you must configure all lines on all VISM/VISM-PR cards as local.</p>
<i>line_type</i>	<p>Line type.</p> <p>Use one of the following values for E1 lines:</p> <ul style="list-style-type: none"> 1 = dsx1ESF 2 = dsx1D4 3 = E1 4 = E1CRC 5 = E1MF 6 = E1MFCRC 7 = E1 Clear 8 = E1Q50 9 = E1Q50CRC
<i>loopback_detection</i>	<p>Loopback detection.</p> <ul style="list-style-type: none"> 1 = Disabled 2 = Enabled (This value is not applicable to E1 lines.)
<i>circuit_identifier</i>	<p>(Optional) Name of the circuit in ASCII format. Range is 1–64 characters.</p>

Step 6 To ensure that you configured your clocking source correctly, enter the **dsplns** command.

You have completed configuring the clocking source for your PXM1 and VISM/VISM-PR cards. Proceed to the [“Configuring DS0 Channels”](#) section on page 6-22.

Configuring the PXM1E or PXM45 Card as Clocking Source

Use the `cnfncdpclksrc` command to configure the PXM1E or PXM45 card as the primary clock source.

Use the following commands to display and verify your configuration:

- `dspncdpclkinfo`
- `dspncdpclksrc`

See the “[Related Documentation](#)” section on page xxx for the appropriate document to use the commands in this section.

Configuring DS0 Channels

You are now ready to configure the 24 (T1) or 31 (E1) DS0 channels on the VISM/VISM-PR T1 or E1 lines.

[Table 6-8](#) describes the VISM/VISM-PR DS0 density when the cards are used in combination with the supported codecs.

Table 6-8 VISM/VISM-PR DS0 Density with Codec Support

Codec	VISM		VISM-PR	
	T1	E1	T1	E1
G.711	192	248	192	248
G.723	—	—	144	144
G.726	145	145	192	248
G.729	145	145	192	248

To configure a DS0 channel, complete the following tasks:

1. Add DS0 endpoints to lines.
2. Configure CCS or CAS signaling.

Add DS0 Endpoints to Lines

Complete the following steps to add DS0 endpoints to lines:

-
- Step 1** To add a DS0 to a line, enter the `addendpt` command.
- Step 2** This step ensures that a call with a specified endpoint is tied to a specific line and channel.

```
PXM1E_SJ.1.28.VISM8.a > addendpt <endpt_num> <ds1_num> <ds0_num>
```



Note If you choose CAS signaling for a VISM/VISM-PR E1 line, the supported operating modes are AAL2 trunking and VoIP trunking.

Replace the above arguments with the values listed in [Table 6-9](#).

Table 6-9 Parameters for addendpts Command

Parameter	Description
<i>endpt_num</i>	<p>Endpoint number.</p> <ul style="list-style-type: none"> • Template 1 <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • Template 2 <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • Template 3 <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • Template 4 <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • Template 5 <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1
<i>ds1_num</i>	Physical line number in the range 1–8.
<i>ds0_num</i>	<p>DS0 number to which the endpoints are added.</p> <ul style="list-style-type: none"> • 1–24 for T1 lines • 1–31 for non-CAS E1 lines • 1–15, 17–31 for CAS E1 lines <p>Note If the application requires CAS signaling, issue the cnflnsig command before adding the endpoints.</p>
<i>endpts_num</i>	<p>Quantity of endpoints added.</p> <p>For Lossless compression use the following range for template 5: VISM-PR E1 1–248.</p>

Step 3 To add multiple endpoints with one command, enter the **addendpts** command.

```
mgx8850.1.12.VISM8.a > addendpts <endpt_num> <ds1_num> <ds0_num> <endpts_num>
```

Replace the above arguments with the values listed in [Table 6-10](#) for the **addendpts** parameters.

Table 6-10 Parameters for addendpts Command

Parameter	Description
<i>endpt_num</i>	<p>First endpoint number of a range of consecutive endpoints.</p> <ul style="list-style-type: none"> • Template 1 <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • Template 2 <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • Template 3 <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • Template 4 <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • Template 5 <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1
<i>dsl_num</i>	Physical line number in the range 1–8.

Table 6-10 Parameters for `addendpts` Command (continued)

Parameter	Description
<code>ds0_num</code>	<p>DS0 number to which the endpoints are added.</p> <ul style="list-style-type: none"> • 1–24 for T1 lines • 1–31 for non-CAS E1 lines • 1–15, 17–31 for CAS E1 lines <p>Note If the application requires CAS signaling, issue the cnflnsig command before adding the endpoints.</p>
<code>endpts_num</code>	<p>Quantity of endpoints added.</p> <ul style="list-style-type: none"> • Template 1 <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • Template 2 <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • Template 3 <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • Template 4 <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • Template 5 <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1

Step 4 To place a specific endpoint—and so a specific DS1/DS0—into the loopback state in the TDM direction, enter the **addendptloop** command.

```
PXM1E_SJ.1.28.VISM8.a > addendptloop <endpt_num>
```

Replace `<endpt_num>` with one of the following values:

- Template 1
 - 1–145 for VISM
 - 1–192 for VISM-PR T1
 - 1–248 for VISM-PR E1
- Template 2
 - 1–192 for T1
 - 1–248 for E1

- Template 3
 - 1–120 for VISM
 - 1–192 for VISM-PR T1
 - 1–248 for VISM-PR E1
- Template 4
 - 1–64 for VISM
 - 1–144 for VISM-PR
- Template 5
 - 1–192 for VISM-PR T1
 - 1–248 for VISM-PR E1

Step 5 To place a specific DS1/DS0 into one of three loopback states, enter the **cnfds0loop** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfds0loop <line_number> <ds0_number> <lineloopback_type>
```

Replace the above arguments with the values listed in [Table 6-11](#).

Table 6-11 Parameters for cnfds0loop Command

Parameter	Description
<i>line_number</i>	Line number. Range is 1–8.
<i>ds0_number</i>	DS0 number. <ul style="list-style-type: none"> • 1–24 for T1 lines • 1–31 for non-CAS E1 lines • 1–15, 17–31 for CAS E1 lines <p>Note If the application requires CAS signaling, issue the cnflnsig command before adding the endpoints.</p>
<i>lineloopback_type</i>	Type of loop on the line. <ul style="list-style-type: none"> • 1 = No loop • 2 = Remote loop • 3 = Local loop

You have completed adding and configuring a DS1 line and DS0 endpoints. Proceed to one of the following sections:

- “Configuring TDM Side Signaling for Applications Using CCS” section on page 6-27.
- “Configuring TDM Side Signaling for Applications Using CAS” section on page 6-31.

Configuring TDM Side Signaling for Applications Using CCS



Note

If your application requires CAS signaling, proceed to the [“Configuring TDM Side Signaling for Applications Using CAS”](#) section on page 6-31.

CCS signaling uses a dedicated channel on a DS1 line to carry the signaling for the other channels on the line. You must identify the signaling channel to the VISM/VISM-PR card. CCS signaling is used for the following operating modes:

- VoIP trunking/AAL2 trunking.
- AAL2 trunking—Signaling is transported across the trunk as Q.931 messages in ATM cells using AAL5.
- Switched AAL2 PVC—Signaling is backhauled to the call agent using Q.921 frames on the TDM side and RUDP/UDP/IP/Q.2931 on the call agent side.

Complete the following steps to add and configure CCS signaling:

Step 1 To add a CCS channel to your VISM/VISM-PR card, enter the **addccs** command.

```
PXM1E_SJ.1.28.VISM8.a > addccs <line_number> <ds0_number> <LCN>
```

Replace the above arguments with the values listed in [Table 6-12](#) for the **addccs** command.

Table 6-12 Parameters for addccs Command

Parameter	Description
<i>line_number</i>	Line number. Range is 1–8.
<i>ds0_number</i>	DS0 number. <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
<i>LCN</i>	Logical channel number of the CCS channel to be added. Range is 131–510.

If you are configuring CCS for the AAL2 trunking operating mode, the CCS configuration is complete. Proceed to the [“Configuring Bearer Processing”](#) section on page 6-38.

Before proceeding to [Step 2](#), ensure that you add a session and a session set described in the [“Configuring ISDN PRI Backhaul”](#) section on page 6-73.

Step 2 To add an ISDN PRI channel on a DS1/DS0, enter the **addlapd** command.

```
PXM1E_SJ.1.28.VISM8.a > addlapd <line_number> <ds0_number> |<lapd_side>
<lapd_application_type>|
```

Replace the above arguments with the values listed in [Table 6-13](#) for the **addlapd** command.

Table 6-13 Parameters for addlapd Command

Parameter	Description
<i>line_number</i>	Line number. Type the value used in Step 1 .
<i>ds0_number</i>	DS0 number. Type the value used in Step 1 . <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
<i>/lapd_side/</i>	(Optional) The side of the LAPD link. Values are <ul style="list-style-type: none"> • 1 = Network (Default) • 2 = User
<i>/lapd_application_type/</i>	(Optional) Application type of the LAPD ISDN D channel. Values are <ul style="list-style-type: none"> • 1 = PRI (Default) • 2 = GR-303 (not unsupported)

Step 3 To specify the LAPD stack type, enter the **cnflapdtype** command.

```
PXM1E_SJ.1.28.VISM8.a > cnflapdtype <line_number> <ds0_number> <lapd_type>
```

Replace the above arguments with the values listed in [Table 6-14](#) for the **cnflapdtype** command.

Table 6-14 Parameters for cnflapdtype Command

Parameter	Description
<i>line_number</i>	Line number. Type the value used in Step 1 .

Table 6-14 Parameters for cnflapdtype Command (continued)

Parameter	Description
<i>ds0_number</i>	DS0 number. Type the value used in Step 1 . <ul style="list-style-type: none"> 1–24 = T1 lines 1–31 = E1 lines
<i>lapd_type</i>	Type of LAPD stack to configure on the specified line and DS0. Values are <ul style="list-style-type: none"> 1 = CCITT 3 = ATT5ESSPRA 4 = ATT4ESS 6 = NTDMS100PRA 7 = VN2 or 3 8 = INSNet 9 = TR6MFC 10 = TR6PBX 12 = AUSP 13 = NIL 14 = SSETSI 15 = BC303TMC 16 = BC303CSC 17 = NTDMS250 18 = Bellcore 19 = NI2 (Default)

Step 4 To specify the LAPD window size, enter the **cnflapdwindow** command.

```
PXM1E_SJ.1.28.VISM8.a > cnflapdwindow <line_number> <ds0_number> <>window_size>
```

Replace the above arguments with the values listed in [Table 6-15](#) for the **cnflapdwindow** command.

Table 6-15 Parameters for cnflapdwindow Command

Parameter	Description
<i>line_number</i>	Line number. Type the value used in Step 1 .
<i>ds0_number</i>	DS0 number. Type the value used in Step 1 . <ul style="list-style-type: none"> 1–24 = T1 lines 1–31 = E1 lines
<i>window_size</i>	Maximum number of outstanding (unacknowledged) I-frames that can be accumulated before sending an acknowledgment. Range is 1–127. Default is 7.

Step 5 To specify the maximum allowable frame retransmissions, enter the **cnflapdretrans** command.

```
PXM1E_SJ.1.28.VISM8.a > cnflapdretrans <line_number> <ds0_number> <N200>
```

Replace the above arguments with the values listed in [Table 6-16](#) for the **cnflapdretrans** command.

Table 6-16 Parameters for cnflapdretrans Command

Parameter	Description
<i>line_number</i>	Line number. Type the value used in Step 1 .
<i>ds0_number</i>	DS0 number. Type the value used in Step 1 . <ul style="list-style-type: none"> 1–24 = T1 lines 1–31 = E1 lines
<i>N200</i>	Maximum frame retransmissions. Range is 1–10. Default is 3.

Step 6 To specify the two LAPD timers, enter the **cnflapdtimer** command.

```
PXM1E_SJ.1.28.VISM8.a > cnflapdtimer <line_number> <ds0_number> <timer_T200>
<timer_T203>
```

Replace the above arguments with the values listed in [Table 6-17](#) for the **cnflapdtimer** command.

Table 6-17 Parameters for cnflapdtimer Command

Parameter	Description
<i>line_number</i>	Line number. Type the value used in Step 1 .
<i>ds0_number</i>	DS0 number. Type the value used in Step 1 . <ul style="list-style-type: none"> 1–24 = T1 lines 1–31 = E1 lines
<i>timer_T200</i>	T200 timer. Time (defined in milliseconds) between frame transmission initiations. Ranges are <ul style="list-style-type: none"> 1000–1023000 for PRI—in increments of 50. Default is 1000. 100–350 for GR-303—in increments of 50. Default is 150. <p>Note This value must be less than the value you specify for the <i>timer_T203</i> argument value.</p>
<i>timer_T203</i>	T203 timer. Maximum time (defined in milliseconds) allowed without a frame being exchanged. Ranges are <ul style="list-style-type: none"> 1000–1023000 for PRI—in increments of 1000. Default is 10000. 10000–300000 for GR-303—in increments of 10000. Default is 30000. <p>Note This value must be greater than the value you specify for the <i>timer_T200</i> argument value.</p>

You have completed adding and configuring CCS. Proceed to the [“Configuring Bearer Processing” section on page 6-38](#).

Configuring TDM Side Signaling for Applications Using CAS

**Note**

If your application requires CCS, see the [“Configuring TDM Side Signaling for Applications Using CCS” section on page 6-27](#).

CAS signaling is used for the following operating modes:

- VoIP trunking/AAL2 trunking.
- VoIP switching—TDM side signaling is translated in xGCP messages to the call agent.
- AAL2 trunking—Signaling is transported across the trunk as Q.931 messages in AAL2 cells using AAL5.
- Switched AAL2 PVC—Signaling is backhauled to the call agent using xGCP on the TDM side and Reliable User Datagram Protocol (RUUDP)/User Datagram Protocol (UDP)/IP/Q.2931 on the call agent side.
- VoIP and AAL1 SVC

Complete the following steps to add and configure CAS signaling.

**Note**

If you choose CAS signaling for a VISM/VISM-PR E1 line, the supported operating modes are AAL2 trunking and VoIP trunking. In addition [Step 1](#) through [Step 8](#) and [Step 11](#) through [Step 13](#) are used only in the VoIP switching and switched AAL2 PVC operating modes.

Step 1

To configure the source of CAS-related timer parameters for a specified endpoint, enter the **cnfcasparamsource** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcasparamsource <endpt_num> <ParamSource>
```

Replace the above arguments with the values listed in [Table 6-18](#) for the **cnfcasparamsource** command.

Table 6-18 Parameters for cnfcasparamsource Command

Parameter	Description
<i>endpt_num</i>	<p>The endpoint number which is to be configured with the source location, identified by the <i>ParamSource</i> argument value. Ranges are:</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>ParamSource</i>	<p>CAS-related timer parameters source location. Values are</p> <ul style="list-style-type: none"> • 1 = CAS application file (Default) • 2 = Current VISM MIB



Note The **cnfcasparamsource** command permits different CAS-related timer values for different endpoints, but all endpoints are associated with the same CAS variant.

Step 2 To specify the minimum time an on hook-pattern must be present to be recognized as an on-hook signal, enter the **cnfcasonhooktime** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcasonhooktime <endpt_num> <OnHookMinTime>
```

Replace the above arguments with the values listed in [Table 6-19](#) for the **cnfcasonhooktime** command.

Table 6-19 Parameters for cnfcasonhooktime Command

Parameter	Description
<i>endpt_num</i>	Type the value used in Step 1 .
<i>OnHookMinTime</i>	On-hook time (defined in milliseconds). Range is 10–1000 ms. Default is 300 ms.

- Step 3** To specify the minimum time an off-hook pattern must be present to be recognized as an off-hook signal, enter the **cnfcasoffhooktime** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcasoffhooktime <endpt_num> <OffHookMintime>
```

Replace the above arguments with the values listed in [Table 6-20](#) for the **cnfcasoffhooktime** command.

Table 6-20 Parameters for cnfcasoffhooktime Command

Parameter	Description
<i>endpt_num</i>	Type the value used in Step 1 .
<i>OffHookMintime</i>	Off-hook time (defined in milliseconds). Range is 10–1000 ms. Default is 2- ms.

- Step 4** To specify the minimum and maximum make times and the minimum break time, enter the **cnfcaswinktime** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcaswinktime <endpt_num> <WinkMinTime> <WinkMaxTime> <WinkBreakTime>
```

Replace the above arguments with the values listed in [Table 6-21](#) for the **cnfcaswinktime** command.

Table 6-21 Parameters for cnfcaswinktime Command

Parameter	Description
<i>endpt_num</i>	Type the value used in Step 1 .
<i>WinkMinTime</i>	Minimum make duration time (defined in milliseconds) of the wink. Range is 10–1000 ms. Default is 100 ms.
<i>WinkMaxTime</i>	Maximum make duration time (defined in milliseconds) of the wink. Range is 10–3000 ms. Default is 1000 ms.
<i>WinkBreakTime</i>	Minimum break duration time (defined in milliseconds) of the wink. Range is 10–1000 ms. Default is 20 ms.

A wink begins with an on-hook pattern, goes to off-hook, and returns to on-hook. All three make and break duration time argument values must be observed for the signaling sequence to be recognized as a wink.

Step 5 To specify the glare time, enter the **cnfcasglaretime** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcasglaretime <endpt_num> <GlareTime>
```

Replace the above arguments with the values listed in [Table 6-22](#) for the **cnfcasglaretime** command.

Table 6-22 Parameters for cnfcasglaretime Command

Parameter	Description
<i>endpt_num</i>	Type the value used in Step 1 .
<i>GlareTime</i>	Glare time (defined in milliseconds). Range is 10–1000 ms. Default is 500 ms.

Step 6 To specify the guard time, enter the **cnfcasguardtime** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcasguardtime <endpt_num> <GuardTime>
```

Replace the above arguments with the values listed in [Table 6-23](#) for the **cnfcasguardtime** command.

Table 6-23 Parameters for cnfcasguardtime Command

Parameter	Description
<i>endpt_num</i>	Type the value used in Step 1 .
<i>GuardTime</i>	Guard time (defined in milliseconds). Range is 10–1000 ms. Default is 800 ms.

Step 7 To configure the CAS dial delay (wait time), enter the **cnfcasdialdelay** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcasdialdelay <endpt_num> <DialDelayTime>
```

Replace the above arguments with the values listed in [Table 6-24](#) for the **cnfcasdialdelaytime** command.

Table 6-24 Parameters for cnfcasdialdelaytime Command

Parameter	Description
<i>endpt_num</i>	Type the value used in Step 1 .
<i>DialDelayTime</i>	Wait time (defined in milliseconds) for outpulsing digits to the PBX after sending an off-hook event. Range is 10–1000. Default is 500.

Dial delay is the time that VISM waits before sending dialing digits after sending an off-hook event.



Note The **cnfcasdialdelay** command applies to immediate start protocols only.

Step 8 To configure CAS for the switched AAL2 PVC operating mode, proceed to [Step 11](#).

To configure CAS for the AAL2 trunking operating mode, proceed to [Step 9](#).

Step 9 To specify the idle and seized codes for one or more endpoints, enter the **cnfcascode** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcascode <endpt_num> <idle_code> <seized_code> |<endpts_num>|
```

Replace the above arguments with the values listed in [Table 6-25](#) for the **cnfcascode** command.

Table 6-25 Parameters for cnfcascode Command

Parameter	Description
<i>endpt_num</i>	Type the value used in Step 1 . Note If the second (optional) <i>endpts_num</i> argument is specified, this argument value is the first endpoint in a consecutive number of endpoints.
<i>idle_code</i>	The 4-bit idle code. Range is 0–15 and represents the four signaling bits—A, B, C, and D—in binary, as bits 3, 2, 1, and 0 respectively. Bit 3 is the most significant.
<i>seized_code</i>	The 4-bit seized code. Range is 0–15 and represents the four signaling bits—A, B, C, and D—in binary, as bits 3, 2, 1, and 0 respectively. Bit 3 is the most significant.
<i>/endpts_num/</i>	(Optional) The last endpoint in a consecutive range of endpoints. Ranges are <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1

Step 10 To configure a local CAS bit pattern for a T1 line and DS0, enter the **cnfds0localcas** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfds0localcas <line_number> <ds0_number> <cas_value>
<cas_bit_pattern>
```

Replace the above arguments with the values listed in [Table 6-26](#) for the **cnfds0localcas** command.

Table 6-26 Parameters for cnfds0localcas Command

Parameter	Description
<i>line_number</i>	T1 line number on which to configure a local CAS bit pattern. Range is 1–8.
<i>ds0_number</i>	DS0 number on which to configure a local CAS bit pattern. Range is 1–24 for T1 lines.
<i>cas_value</i>	Value to enable or disable the local CAS pattern indicated by the <i>cas_bit_pattern</i> argument. Values are <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
<i>cas_bit_pattern</i>	The local 4-bit pattern expressed as a number in the range from 1 (default) to 15. The value specifies, in binary, the value of the A, B, C, and D signaling bits. Note If local CAS is enabled, this argument is mandatory.

The **cnfds0localcas** command is not applicable if you have one of the following conditions:

- The line is E1 or not enabled.
- The DS0 is in a remote loop state.
- The line signaling type is CAS.

Step 11 To add a CAS variant to your VISM/VISM-PR card, enter the **addcasvar** command.



Note A file containing the CAS variant information must be downloaded to your MGX 8000 Series PXM card using a separate application (TFTP) before you can execute this command.

```
PXM1E_SJ.1.28.VISM8.a > addcasvar <variant_name> <file_name> |<cas_var_source>|
```


Replace the above arguments with the values listed in [Table 6-27](#) for the **addcasvar** command.

Table 6-27 Parameters for addcasvar Command

Parameter	Description
<i>variant_name</i>	Name of the CAS variant; a text string of 1 to 64 alphanumeric characters.
<i>file_name</i>	Name of the file that contains the signal definition for the CAS variant. <ul style="list-style-type: none"> • wink_did_dod.o = wink start • ground_start.o = ground start • wink_did_dod_mf.o = wink start multifrequency • q50.o = Q.50 • fgd_ea_incoming.o = for endpoints connected to an end office • fgd_ea_outgoing.o = for endpoints connected to an access carrier • fgd_os_e911.o = for endpoints connected to FDG OSS (Feature group D operator services system) • loop_start.o = loop start • delay_did_dod.o = dial delay, DTMF • delay_did_dod_mf.o = dial delay, MF • immed_did_dod.o = immediate start • immed_did_dod_mf.o = immediate start, MF For user-configured files, the range is 2–32 alphanumeric characters.
<i>/cas_var_source/</i>	(Optional) CAS variant file location. <ul style="list-style-type: none"> • 1 = Unspecified. If TFTP domain is configured, the location is the TFTP server. If not found in the TFTP server, the file is treated as built-in. • 2 = Internal—File location is user-configured (built-in). • 3 = External—File resides on the TFTP server.

Step 12 To configure a CAS variant and CAS timing parameters for the variant added in [Step 11](#), enter the **cnfcasvar** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcasvar <variant_name> <country_code> <Tring> <Tpart> <Tcrit>
<TMF>
```

Replace the above arguments with the values listed in [Table 6-28](#) for the **cnfcasvar** command.

Table 6-28 Parameters for cnfcasvar Command

Parameter	Description
<i>variant_name</i>	Name of the CAS variant. Type the value used in Step 11
<i>country_code</i>	Country code of the variant. The value must be a two-character text string.

Table 6-28 Parameters for cnfcasvar Command (continued)

Parameter	Description
<i>Tring</i>	Ring time (defined in seconds). Range is 10–600 secs.
<i>Tpart</i>	Partial dial time (defined in seconds). Range is 10–10000 secs—in increments of 10 secs.
<i>Tcrit</i>	Critical timing (defined in seconds). Range is 0–10000 secs—in increments of 10 secs.
<i>TMF</i>	Interdigit timeout value for MF digits (defined in seconds). Range is 1–10 secs.

Step 13 To associate an endpoint with a CAS variant, enter the **cnfcasendpt** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcasendpt <endpt_number> <casVariantName>
```

Replace the above arguments with the values listed in [Table 6-29](#) for the **cnfcasendpt** command.

Table 6-29 Parameters for cnfcasendpt Command

Parameter	Description
<i>endpt_number</i>	Type the value used in Step 9 .
<i>casVariantName</i>	Type the value used in Step 11

You have completed adding and configuring CAS signaling. Proceed to the [“Configuring Bearer Processing”](#) section on page 6-38.

Configuring Bearer Processing

Processing of the bearer payload takes place either upon receipt of the payload from a T1 or E1 line or prior to transmission over a T1 or E1 line. You must complete the following tasks to configure bearer processing:

1. [Configuring Codecs, page 6-38](#)
2. [Configuring ECAN, page 6-41](#)
3. [Configuring Jitter, page 6-42](#)
4. [Configuring PNNI for AAL1/AAL2 SVCs, page 6-43](#)

Configuring Codecs

Complete the following steps to assign and configure a codec template:

Step 1 To specify a codec template, enter the **cnfcodectmpl** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcodectmpl <template_number>
```

Replace *<template_number>* with one of the following values:

- 1 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, and G.729ab codecs, and clear channel

Note Template 1 is limited to 145 DS0s for VISM and 248 DS0s for VISM-PR.

- 2 = G.711u and G.711a uncompressed codecs, and clear channel
- 3 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, and G.729ab codecs and clear channel

Note Codec template number 3 is template 1 with T.38 support added. Template 3 is limited to 120 DS0s for VISM and 248 for VISM-PR.

- 4 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, G.729ab, G.723.1-H, G.723.1a-H, G.723.1-L, G.723.1a-L codecs and clear channel

Note Template 4 supports a maximum of 144 channels for VISM-PR.

- 5 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, and G.729ab and Lossless codecs

Step 2 To specify various codec parameters for use in the VoIP operating mode, enter the **cnfcodeparams** command.

The packetization period is defined in three separate commands depending upon the ATM method used:

- Use the **cnfcodeparams** command for VoIP switching applications. Complete this step.
- Use the **addcid** command for AAL2 trunking applications. See the “[Configuring AAL2 Trunking Operating Mode Parameters](#)” section on page 6-50.
- Use the **addrtpcon** command for AAL2 trunking applications.
- Use the **cnfprofelemvoice** command for switched AAL2 PVC applications. See the “[Configuring Switched AAL2 PVC Operating Mode Parameters](#)” section on page 6-55.

```
PXM1E_SJ.1.28.VISM8.a > cnfcodeparams <codecType> <pktPeriod> |<codecPreference>
<codecString> <ianaCodecNum>|
```

Replace the above arguments with the values listed in [Table 6-30](#) for the **cnfcodeparams** command.

Table 6-30 Parameters for cnfcodeparams Command

Parameter	Description
<i>codecType</i>	Type of coding/decoding to be performed on the data stream. Values are <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)
<i>pktPeriod</i>	Packetization period (defined in milliseconds). Values are <ul style="list-style-type: none"> • 10 (Default for all codecs except G.723) • 20 • 30 (Default for G.723) • 40 • 60
<i>/codecPreference/</i>	(Optional) Preference level of the codec you identified with the <i>codecType</i> argument value. Values are <ul style="list-style-type: none"> • 0 = Ignore preference <p>Note A preference value of 0 results in the codec being excluded from the list of supported codecs during codec negotiation via xGCP.</p> <ul style="list-style-type: none"> • Range of 1 (highest) to 13 (lowest)
<i>/codecString/</i>	(Optional) The xGCP codec string. Range is 1–20 ASCII characters.
<i>/ianaCodecNum/</i>	(Optional) IANA registered codec type. Range is 0–96.

Step 3 To specify a codec preference order when there are several codec lists—from the call agent local connection option (LCO) list, local MIB, or a list received from the remote gateway in the session description protocol (SDP) data, enter the **cnfcodecneg** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcodecneg <codecNegOpt>
```

Replace *<codecNegOpt>* with one of the following priority values:

- 1 = Local connection option (LCO) list, remote Session Description Protocol (SDP) data list, local MIB
- 2 = LCO list, local MIB, remote SDP data list
- 3 = Remote SDP data list, LCO list, local MIB
- 4 = Remote SDP data list, local MIB, LCO list
- 5 = Local MIB, LCO list, remote SDP data list
- 6 = Local MIB, remote SDP data list, LCO list

You have completed assigning and configuring the codec template. Proceed to the [“Configuring ECAN” section on page 6-41](#).

Configuring ECAN

Complete the following steps to enable and configure echo cancellation (ECAN) on a line-by-line basis:

Step 1 To enable (or disable) ECAN for a line, enter the **cnfecanenable** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfecanenable <lineNum> <ECANEnable>
```

Replace *<lineNum>* with a value in the range 1–8.

Replace *<ECANEnable>* with one of the following values:

- 1 = Disable
- 2 = Enable

Step 2 To set the residual echo control, enter the **cnfecanrec** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfecanrec <lineNum> <residualEchoControl>
```

Replace *<lineNum>* the value used in [Step 1](#).

Replace *<residualEchoControl>* with one of the following values:

- 1 = Cancel only
- 2 = Suppress residual
- 4 = Comfort noise

Step 3 To specify the ECAN algorithm maximum tail length, enter the **cnfecantail** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfecantail <lineNum> <maximumTail>
```

Replace *<lineNum>* the value used in [Step 1](#).

Replace *<maximumTail>* with one of the following values:

- 24 ms
- 32 ms (Default)
- 48 ms
- 64 ms
- 80 ms

- 96 ms
- 112 ms
- 128 ms

Step 4 To specify the ECAN algorithm return echo loss applied by ECAN DSPs, in decibels, enter the **cnferl** command.

```
PXM1E_SJ.1.28.VISM8.a > cnferl <DB_loss>
```

Replace *<DB_loss>* with one of the following values:

- 1 = 0 dB
- 2 = -3 dB
- 3 = -6 dB (Default)
- 4 = -10 dB

Step 5 To specify the fax/modem upspeed connection admission control (CAC) failure and carrier loss policies for a channel, enter the **cnfconvbdpol** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfconvbdpol <LCN> <CarrierLossPol> <CACRejPol>
```

Replace the above arguments with the values listed in [Table 6-31](#) for the **cnfconvbdpol** command.

Table 6-31 Parameters for cnfconvbdpol Command

Parameter	Description
<i>LCN</i>	Logical channel number (LCN) of the connection. Range is 131–510.
<i>CarrierLossPol</i>	Carrier loss policy. Values are <ul style="list-style-type: none"> • 1 = Revert to the previous codec • 2 = Maintain the upspeed codec • 3 = Unspecified (Default)
<i>CACRejPol</i>	CAC rejection policy. Values are <ul style="list-style-type: none"> • 1 = Delete the connection • 2 = Maintain the connection • 3 = Unspecified (Default)

You have completed enabling and configuring ECAN on your lines. Proceed to the [“Configuring Jitter” section on page 6-42](#).

Configuring Jitter

You can dejitter the voice payload to improve the quality of the egress voice stream.



Note

If your application uses the AAL2 trunking operation mode, you cannot change the jitter parameters while the CIDs are active.

Complete the following steps to specify and configure jitter mode:

Step 1 To set the jitter mode, enter the **cnfjtrmode** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfjtrmode <jtr_mode>
```

Replace *<jtr_mode>* with one of the following values:

- 1 = Fixed. Cisco recommends fixed mode if latency jitter is constant.
- 2 = Adaptive. Cisco recommends adaptive if latency jitter is variable.

Step 2 If you chose a fixed buffer size in [Step 1](#), you have completed configuring jitter. Proceed to the [“Configuring the ATM Network Side”](#) section on page 6-43.

If you chose an adaptive buffer size in [Step 1](#), proceed to [Step 3](#).

Step 3 To specify the starting buffer size, enter the **cnfjtrinitdelay** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfjtrinitdelay <jtr_initdelay>
```

Replace *<jtr_initdelay>* with one of the following values:

- For template numbers 1, 3, 4, and 5 range is 0–100 in increments of 10.
- For template number 2, range is 0–100 in increments of 5.

You have completed configuring jitter. Proceed to the [“Configuring the ATM Network Side”](#) section on page 6-43.

Configuring PNNI for AAL1/AAL2 SVCs

Use the **cnfnpncon** command to configure Private Network-to-Network Interface (PNNI) priority routing for AAL1/AAL2 switched virtual circuits (SVCs). See [Chapter 7, “CLI Commands,”](#) for more information on using the **cnfnpncon** command.

Configuring the ATM Network Side

Configuring the ATM network side consists of setting up ATM PVCs across the network and providing the mechanism by which calls are routed over the correct PVC. The PVC configuration depends on the VISM operating mode you require for your application.

- The Voice over IP switching operating mode requires you to set up an AAL5 PVC between the VISM card and the PXM card, and then to an edge router. A single PVC is set up (a secondary PVC may also be set up for redundancy). The PVC is used for bearer voice traffic and gateway protocol communication between VISM and the call agent. The router extracts the IP frames from the ATM cells and routes the frames accordingly.
- The AAL2 trunking operating mode requires you to set up as many as 64 AAL2 PVCs connected to each remote location supported by the network. The PVCs carry voice traffic and optional CAS signaling.

Each PVC is set up as three segments consisting of two local segments and one network segment. The local segments are set up between the two VISM cards (one at the end of the PVC) and their respective PXM cards. The network segment is set up between the two PXM cards across the network. Refer to the Cisco MGX 8250 and Cisco MGX 8230 Installation and Configuration guides for more information.

In AAL2 trunking operating mode, you must bind endpoints to specific DS0s using the **addendpoint(s)** commands. You must also create CIDs (connection identifiers) for each PVC that binds the endpoints to the CID and a PVC. This ensures that calls arriving at a specific DS0 are automatically routed to the preconfigured CID and PVC over nailed-down trunks. There is no switched or call agent involvement.

- The switched AAL2 PVC operating mode requires you to set up as many as 64 AAL2 PVCs connected to each remote location supported by the network. The PVCs carry voice traffic across the ATM network.

Each PVC is set up as three segments consisting of two local segments and one network segment. The local segments are set up between the two VISM cards (one at the end of the PVC) and their respective PXM cards. The network segment is set up between the two PXM cards across the network. Refer to the Cisco MGX 8850 Release 1 installation and configuration guides for more information.

In switched AAL2 PVC operating mode, you must bind endpoints to specific DS0s using the **addendpoint(s)** commands. You must also create VCCIs (virtual circuit connection identifiers), which identify each PVC and associate each PVC with a specific remote ATM address. At call setup time, the call agent informs VISM which VCCI to use for the call and instructs VISM to set up a CID for transport across the VCCI. This ensures that the binding of a DS0 to a CID and PVC is dynamic by using of the called address.

This section contains the following topics:

1. [Configuring PVC Connections for All Operating Modes, page 6-44](#)
2. [Configuring VoIP Switching/Trunking Operating Mode Parameters, page 6-48](#)
3. [Configuring AAL2 Trunking Operating Mode Parameters, page 6-50](#)
4. [Configuring Switched AAL2 PVC Operating Mode Parameters, page 6-55](#)

Configuring PVC Connections for All Operating Modes

Complete the following steps to configure PVC connections for all operating modes:

- Step 1** To add an ATM PVC between the VISM card and the MGX 8000 Series platform PXM card, enter the **addcon** command.

```
PXM1E_SJ.1.28.VISM8.a > addcon <localVCI> <preference> <pvcType> <application> <PCR>
<mastership> |<remoteConnId> <serviceType> [<scr> <mbs>] |
```

Replace the above arguments with the values listed in [Table 6-32](#) for the **addcon** command.

Table 6-32 Parameters for addcon Command

Parameter	Description
<i>localVCI</i>	Local virtual channel identifier (VCI) to be used for the connection. Range is 131–510. The value you enter for this argument is also used as the LCN.
<i>preference</i>	Preference level of the local VCI. <ul style="list-style-type: none"> • 1 = Primary • 2 = Secondary

Table 6-32 Parameters for addcon Command (continued)

Parameter	Description
<i>pvcType</i>	AAL type of connection. <ul style="list-style-type: none"> • 1 = AAL5 • 2 = AAL2 • 3 = AAL1
<i>application</i>	The connection's application. It can be one of the following values: <ul style="list-style-type: none"> • 1 = Control • 2 = Bearer • 3 = Signaling <p>Note If the connection is used for bearer and signaling, specify 2 for bearer.</p>
<i>PCR</i>	Peak cell rate (PCR) described in cells per second. Ranges are <ul style="list-style-type: none"> • 1–96000 for AAL5 bearer • 1–20000 for AAL5 control PVC • 1–50000 for T1 AAL2 PVCs • 1–60000 for E1 AAL2 PVCs • 1–400 for signaling PVCs in AAL2 trunking mode <p>Note If the <i>serviceType</i> argument is variable bit rate (VBR), the <i>PCR</i> argument value must be 15 or greater.</p>
<i>mastership</i>	Connection type. <ul style="list-style-type: none"> • 1 = Master • 2 = Slave (Default)
<i>remoteConnId</i>	(Optional) Remote connection identifier. Specify this argument with the following format: nodename.slot.port.vpi.vci <p>Note This argument is used only when the <i>mastership</i> argument is set to 1 (Master).</p>
<i>serviceType</i>	(Optional) Service type. It can be one of the following values: <ul style="list-style-type: none"> • 1 = Constant bit rate (CBR) • 2 = Variable bit rate real time (rt-VBR) • 3 = Variable bit rate non-real time (nrt-VBR) • 4 = rt-VBR3 • 5 = rt-VBR2 • 6 = nrt-VBR2 • 7 = nrt-VBR3 <p>Note Use value 7 for VISM-PR to RPM-PR connections.</p>

Table 6-32 Parameters for addcon Command (continued)

Parameter	Description
<i> scr </i>	(Optional) Sustainable cell rate (SCR) defined in cells per second. Range is from 15 to the value you configured for the <i>PCR</i> argument value. Note This argument value is required if the <i>serviceType</i> argument value is in the range 2–7.
<i> mbs </i>	(Optional) Maximum burst size (MBS)—maximum number of cells transmitted at the peak cell rate. Range is from 1 cell to 10 times the value you configured for the <i>scr</i> argument value. Note This argument value is required if the <i>serviceType</i> argument value is in the range 2–7.

Step 2 If you need to refine the configuration parameters of the connection added in [Step 1](#) and identify the connection by the logical channel number, enter the **cnfcon** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfcon <LCN> <PCR> <service_type> |<SCR_ingress> <MBS_ingress>|
```

Replace the above arguments with the values listed in [Table 6-33](#) for the **cnfcon** command.

Table 6-33 Parameters for cnfcon Command

Parameter	Description
<i>LCN</i>	Type the value you entered for the <i>localVCI</i> argument in Step 1 .
<i>PCR</i>	Peak cell rate (PCR) described in cells per second. Note The <i>PCR</i> argument value cannot be changed if the calls or connections for signaling and control are active. Ranges are <ul style="list-style-type: none"> • 1–400 = Signaling PVCs in AAL2 trunking mode • 1–20000 = AAL5 control PVC • 1–50000 = T1 AAL2 bearer PVCs • 1–60000 = E1 AAL2 bearer PVCs • 1–96000 = AAL5 bearer PVC Note If the <i>service_type</i> argument value is a variable bit rate (VBR), the <i>PCR</i> argument value must be 15 or greater.

Table 6-33 Parameters for *cnfcon* Command (continued)

Parameter	Description
<i>service_type</i>	<p>Service type. Values are</p> <ul style="list-style-type: none"> • 1 = Constant bit rate (CBR) • 2 = Variable bit rate real time—rt-VBR • 3 = Variable bit rate non-real time—nrt-VBR • 4 = rt-VBR3 • 5 = rt-VBR2 • 6 = nrt-VBR • 7 = nrt-VBR <p>Note For VISM-PR to RPM-PR connections, use values 4–7.</p>
<i>/SCR_ingress/</i>	<p>(Optional) Sustainable cell rate (SCR). Range is from 15 to the value you configured for the <i>PCR</i> argument value.</p> <p>Note This argument value is required if the <i>service_type</i> argument value is in the range 2–7.</p>
<i>/MBS_ingress/</i>	<p>(Optional) Maximum burst size (MBS)—maximum number of cells transmitted at the peak cell rate. Range is from 1 cell to 10 times the value you configured for the <i>SCR_ingresse</i> argument value.</p> <p>Note This argument value is required if the <i>service_type</i> argument value is in the range 2–7.</p>

Step 3 To set a loopback on a VISM/VISM-PR PVC with the loopback in the direction of cellbus, enter the **addconloop** command.

```
PXM1E_SJ.1.28.VISM8.a > addconloop <LCN>
```

Replace <LCN> with a value in the range 131–510.



Note You can use the **delconloop** command to remove a loopback on a VISM PVC.

You have completed configuring PVC connections. Proceed to one of the following sections, as appropriate:

- [Configuring VoIP Switching/Trunking Operating Mode Parameters, page 6-48.](#)
- [Configuring AAL2 Trunking Operating Mode Parameters, page 6-50.](#)
- [Configuring Switched AAL2 PVC Operating Mode Parameters, page 6-55.](#)

Configuring VoIP Switching/Trunking Operating Mode Parameters

Complete the following steps to configure VoIP switching operating mode parameters:

- Step 1** To configure primary and secondary PVCs to provide protection in the event of a PVC failure, enter the **cnfconprotect** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfconprotect <LCN> <protection> <lock_state> <fallback_LCN>
```

Replace the above arguments with the values listed in [Table 6-34](#) for the **cnfconprotect** command.

Table 6-34 Parameters for cnfconprotect Command

Parameter	Description
<i>LCN</i>	Primary logical channel number of the connection (PVC). Range is 131–510.
<i>protection</i>	Value to enable or disable PVC protection. <ul style="list-style-type: none"> 1 = Protected 2 = Unprotected
<i>lock_state</i>	PVC lock state. Values are <ul style="list-style-type: none"> 1 = Unlock 2 = Lock
<i>fallback_LCN</i>	Secondary (fallback) logical channel number of the connection (PVC). Range is 131–510.

- Step 2** To configure the type of service for both control and bearer IP packets, enter the **cnfdeftos** command.



Note If you do not execute the **cnfdeftos** command, card level default values are used.

```
PXM1E_SJ.1.28.VISM8.a > cnfdeftos <control_precedence> <control_tos> |<bearer_precedence> <bearer_tos>|
```

Replace the above arguments with the values listed in [Table 6-35](#) for the **cnfdeftos** command.

Table 6-35 Parameters for cnfdeftos Command

Parameter	Description
<i>control_precedence</i>	Control precedence. Range is 0–7 (both inclusive). Default is 3.
<i>control_tos</i>	Type of service for control packets. Values are <ul style="list-style-type: none"> 0 = Default 1 2 4 8

Table 6-35 Parameters for cnfdeftos Command (continued)

Parameter	Description
<i>/bearer_precedence/</i>	(Optional) Bearer precedence (conforms to RFC 791). Range is 0–7 (both inclusive). Default is 5. Note The <i>bearer_precedence</i> argument is used during call setup in cases where values are not supplied by a call agent.
<i>/bearer_tos/</i>	(Optional) Type of service for bearer packets. Values are <ul style="list-style-type: none"> • 0 = Default • 1 • 2 • 4 • 8 Note The <i>bearer_tos</i> argument is used during call setup in cases where values are not supplied by a call agent.

Step 3 To configure the VoIP transportation characteristics across the network, enter the **cnfvoiptransparams** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfvoiptransparams <DtmfRelay> <CasBits> |<EventNego>
<EventNegoPolicy> <SIDPayloadType>|
```

Replace the above arguments with the values listed in [Table 6-36](#) for the **cnfvoiptransparams** command.

Table 6-36 Parameters for cnfvoiptransparams Command

Parameter	Description
<i>DtmfRelay</i>	Value to enable or disable DTMF tone transportation to the remote endpoint. <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off Note The <i>DtmfRelay</i> argument value must be set to 1 (on) when you are using codecs other than G.711 and G.726.
<i>CasBits</i>	Value to enable or disable CAS signaling transportation to the remote endpoint. <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default)
<i>/EventNego/</i>	(Optional) Value to enable or disable whether VISM should negotiate how to send events. <ul style="list-style-type: none"> • 1 = On. (Default) Attempt to negotiate how to send events. • 2 = Off. Do not attempt to negotiate how to send events.

Table 6-36 Parameters for *cnfvoiptransparams* Command (continued)

Parameter	Description
<i>/EventNegoPolicy/</i>	(Optional) Event negotiation policy. Values are <ul style="list-style-type: none"> • 1 = None. Call agent driven. • 2 = Proprietary (Default). Call agent driven and VISM proprietary events. • 3 = All. Call agent driven and all event codecs specified by VISM.
<i>/SIDPayloadType/</i>	(Optional) Service ID (SID) payload type. Range is 0–255. Default is 13.

You have completed configuring the VoIP switching operating mode parameters. Proceed to the [“Configuring the Call Agent Interface”](#) section on page 6-63.

Configuring AAL2 Trunking Operating Mode Parameters

Complete the following steps to configure AAL2 trunking operating mode parameters:

Step 1 To add a channel identifier (CID) to an AAL2 PVC, enter the **addcid** command.

```
PXM1E_SJ.1.28.VISM8.a > addcid <endpt_num> <LCN> <cid_num> <codec_type> <profile_type>
<profile_number> <voice_activity_detection> <vad_init_timer> <echo_cancellation>
<triple_redundancy_protection> <cas_signaling_transport> <dtmf_tone_transport_as_AAL2>
<ICS_enable> <pktPeriod>
```

Replace the above arguments with the values listed in [Table 6-37](#) for the **addcid** command.

Table 6-37 Parameters for addcid Command

Parameter	Description
<i>endpt_num</i>	<p>Endpoint number which is to be related to the LCN/CID pair being added.</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>LCN</i>	Logical channel number (LCN) of the LCN/CID pair. Range is 131–510.
<i>cid_num</i>	Channel identification number of the LCN/CID pair. Range is 8–255.

Table 6-37 Parameters for addcid Command (continued)

Parameter	Description
<i>codec_type</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 • 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 when codec is Lossless)
<i>/profile_type/</i>	(Optional) Profile type to be used for the CID. <ul style="list-style-type: none"> • 1 = International Telecommunication Union (ITU) I.366.2 • 3 = Custom <p>Note If <i>profile_type</i> and <i>profile_number</i> argument values are both 1, you cannot turn VAD on.</p>
<i>/profile_number/</i>	(Optional) 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

Table 6-37 Parameters for addcid Command (continued)

Parameter	Description
<i>/voice_activity_detection/</i>	(Optional) Value to enable or disable voice activity detection (VAD). <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default) Note If <i>profile_type</i> and <i>profile_number</i> argument values are both 1, you cannot turn VAD on.
<i>/vad_init_timer/</i>	(Optional) VAD initial (holdover) timer. Range is 250–65535 ms. Default is 250 ms.
<i>/echo_cancellation/</i>	(Optional) Value to enable or disable echo cancellation (ECAN). <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off
<i>/triple_redundancy_protection/</i>	(Optional) Value to enable or disable triple redundancy protection for type 3 packets. <ul style="list-style-type: none"> • 1 = On • 2 = Off Note If you select 1 for this argument value, either the <i>cas_signaling_transport</i> or <i>dtmf_tone_transport_as_AAL2</i> argument value must be set to 1 (on).
<i>/cas_signaling_transport/</i>	(Optional) Value to enable or disable channel associated signaling (CAS) transport as AAL2 type3 packets. <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off This parameter does not affect any inbound signaling.
<i>/dtmf_tone_transport_as_AAL2/</i>	(Optional) Value to enable or disable DTMF tone transport as AAL2 type 3 packets. It can be one of the following values: <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off Note The <i>dtmf_tone_transport_as_AAL2</i> argument value must be set to 1 (on) when the <i>codec_type</i> is configured for codecs other than G.711 and G.726.

Table 6-37 Parameters for addcid Command (continued)

Parameter	Description
<i>/ICS_enable/</i>	<p>(Optional) Value to enable or disable idle code suppression (ICS) for the CID.</p> <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
<i>/pktPeriod/</i>	<p>(Optional) Packetization period (defined in milliseconds). This parameter applies only to G.729a compression.</p> <ul style="list-style-type: none"> • 10 ms • 20 ms • 30 ms <p>Note The <i>pktPeriod</i> argument applies only to G.729a compression (<i>codec_type</i> argument value = 4). If you have selected any other compression value, ignore this argument.</p> <p>The <i>pktPeriod</i> argument requires you to configure packetization in the following ways for the other two operating modes:</p> <ul style="list-style-type: none"> • Use the cnfcodedecparams for the VoIP operating mode. • Use the cnfprofelemvoice command for the switched AAL2 PVC operating mode. See the “Configuring Switched AAL2 PVC Operating Mode Parameters” section on page 6-55 for more information.

The CID is a mechanism within AAL2 that allows multiple calls to be transported across a single AAL2 PVC. The **addcid** command binds an endpoint to a logical channel (PVC).

Step 2 To enable or disable subcell multiplexing, enter the **cnfaal2subcellmuxing** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfaal2subcellmuxing <muxing status>
```

Replace *<muxing status>* with one of the following values:

- 1 = On
- 2 = Off

You have completed configuring the AAL2 trunking operating mode parameters.

Configuring Switched AAL2 PVC Operating Mode Parameters



Note

The switched AAL2 PVC operating mode is not supported in VISM Release 3.2.

You must complete the following tasks to configure the switched AAL2 PVC operating mode parameters:

1. Configure a virtual circuit connection identifier (VCCI).
2. Modify the AAL2 PVC profile table.



Note

Modifying the AAL2 PVC profile table is not mandatory.

3. Configure AAL2 PVC parameters.

Configuring a Virtual Circuit Connection Identifier

Complete the following steps to configure a VCCI for the switched AAL2 PVC operating mode:

Step 1

To create a new VCCI with an associated logical channel number and a remote ATM address, enter the **cnfconvvcci** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfconvvcci <lcn> <vcci> <farend_addr_type> |<farend_addr>|
```

Replace the above arguments with the values listed in [Table 6-38](#) for the **cnfconvvcci** command.

Table 6-38 Parameters for cnfconvvcci Command

Parameter	Description
<i>lcn</i>	Logical channel number of the connection. Range is 131–510.
<i>vcci</i>	VCCI number. Range is 0–65535.

Table 6-38 Parameters for *cnfconvcci* Command (continued)

Parameter	Description
<i>farend_addr_type</i>	<p>Address type of the VCCI. Values are</p> <ul style="list-style-type: none"> 1 = Not applicable <p>Note This address type disassociates a VCCI, far end address type, and far end address from an LCN.</p> <ul style="list-style-type: none"> 2 = NSAP (20-byte hexadecimal address) 3 = E.164 (1–15-byte decimal address) 4 = Gateway ID (1–64-byte ASCII character address) 5 = Unspecified
<i>/farend_addr/</i>	<p>(Optional) Far end IP address. This argument is optional if the <i>farend_addr_type</i> value is 1 or 5.</p> <p>This argument is mandatory if the <i>farend_addr_type</i> value is 2, 3, or 4.</p> <ul style="list-style-type: none"> E.164 farend address—Numeric value. Range is 1–15 characters, each 0–9. GW ID farend address—ASCII value. Range is 1–64 characters. NSAP farend address—Value is 20 bytes binary (in hex) needs 40 hexadecimal (0 - 9, A - F) characters to be typed in.

Step 2 Repeat [Step 1](#), as needed, to configure VCCIs on other LCNs.

You have completed configuring VCCIs for the switched AAL2 PVC operating mode. Proceed to the [“Modifying the AAL2 Operating Mode Profile Table”](#) section on page 6-56.

Modifying the AAL2 Operating Mode Profile Table

A profile table is associated with each AAL2 operating mode. This profile table specifies the encoding format, which tells the card how to interpret the packets.

You can use the `dspaal2profile` command to see the values for a profile type. [Example 6-1](#) shows the default values for ITU profile type 1.

Example 6-1 Default Values for ITU Profile 1

```
nodename.1.28.VISM8.a > dspaal2profile 1 1
```

UUI Codepoint	Packet Length	Codec	SID	M	Packet Time	Seq. No. Interval
Range	(octets)				(ms)	(ms)
0-15	40	PCMU	No SID	1	5	5
0-15	40	PCMA	No SID	1	5	5

Table 6-39 describes the fields shown in the display.

Table 6-39 dspaal2profile Field Descriptions

Field	Description
UUI Codepoint Range	User-to-user indication.
Packet Length (octets)	Packet length for the encoding format.
Codec	Type of codec.
SID	Silence insertion descriptor.
M	Multiple of the service data unit (SDU) for the profile. The SDU is the smallest packet length.
Packet Time (ms)	Voice packetization period.
Seq. No. Interval (ms)	Sequence number interval.

VISM/VISM-PR creates the profile table with the defaults that are listed in Table 6-40. This table is a summary of the output from the `dspsaal2profile` command.

Table 6-40 AAL2 Operating Mode Profiles

Profile Type	Profile Number	UUI Codepoint Range	Packet Length	Voice codec	VAD	M	Voice Packet Period	Sequence Number Interval	Voice Band Data Codec	Voice Band Data Packet Period
ITU	1	0–15	40	G.711u	Off	1	5	5	G.711u	5
ITU	2	0–15	40	G.711u	SIDG	1	5	5	G.711u	5
ITU	3	0–15	40	G.711u	SIDG	1	5	5	G.711u	5
		0–15	10	G.726–16k		1	5			
		0–15	15	G.726–24k		1	5			
		0–15	20	G.726–32k		1	5			
		0–15	25	G.726–40k		1	5			
ITU	7	0–15	40	G.711u	SIDG	1	5	5	G.711u	5
		0–15	10	G.729a	Off	1	10	5		
		0–15	10	G.729ab	SID729	1	10	5		
ITU	8	0–15	40	G.711u	Off	1	5	5	G.711u	5
		0–15	20	G.726–32k	Off	1	5	5		
		0–15	10	G.729a	Off	1	10	5		
		0–15	10	G.729ab	SID729	1	10	5		
ITU	12	0–15	24	G.723.1-H	Off	1	30	5	G.711u	5
		0–15	24	G.723.1a-H	SID723	1	30	5		
		0–15	20	G.723.1-L	Off	1	30	5		
		0–15	20	G.723.1a-L	SID723	1	30	5		
Custom	100	0–7	40	G.711u	SIDG	1	5	5	G.711u	5
		8–15	40	G.726-32	SIDG	2	10	5		

Table 6-40 AAL2 Operating Mode Profiles (continued)

Profile Type	Profile Number	UII Codepoint Range	Packet Length	Voice codec	VAD	M	Voice Packet Period	Sequence Number Interval	Voice Band Data Codec	Voice Band Data Packet Period
Custom	101	0-7	40	G.711u	Off	1	5	5	G.711u	5
		8-15	40	G.726-32	Off	2	10	5		
		8-15	10	G.729a	Off	1	10	5		
		8-15	10	G.729ab	SID729	1	10	5		
Custom	110	0-7	40	G.711u	SIDG	1	5	5	G.711u	5
		8-15	40	G.726-32	SIDG	2	10	5		
		8-15	30	G.729a	Off	3	30	5		
		8-15	30	G.729ab	SID729	3	30	5		
Custom	200	0-15	40	Clear channel	Off	40	5	5	G.711u	5
Custom	201	0-15	40	Lossless	Off	40	5	5	G.711u	5
Custom	210	0-7	40	G.711u	Off	1	5	5	G.711u	5
		8-15	40	G.726-32	Off	2	10	5		
		8-15	20	G.729a	Off	2	20	5		
		8-15	20	G.729ab	SID729	2	20	5		

Complete the following steps to assign a profile preference and to modify the packet period and SID values of the profile table, as necessary.

**Note**

Modifying the AAL2 profile table is not mandatory. Proceed to the “[Configuring AAL2 PVC Parameters](#)” section on page 6-63 if the values shown in [Table 6-40](#) are correct for your application and configuration requirements.

Step 1

To specify the preference for a given profile during call setup profile negotiation, enter the **cnfprofparams** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfprofparams <profileType> <profileNumber> <profilePreference>
```

Replace the above arguments with the values listed in [Table 6-41](#) for the **cnfprofparams** command.

Table 6-41 Parameters for *cnfprofparams* Command

Parameter	Description
<i>profileType</i>	Profile type to be used for the 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>profilePreference</i>	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 • 1–11 where 1 is the highest preference (default) and 11 is the lowest preference

Step 2 To configure the voice profile element for a specified profile, enter the **cnfprofelemvoice** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfprofelemvoice <profileType> <profileNumber> <voice_codec_type>
<pktPeriod> <sid>
```

Replace the above arguments with the values listed in [Table 6-42](#) for the **cnfprofelemvoice** command.

Table 6-42 Parameters for cnfprofelemvoice Command

Parameter	Description
<i>profileType</i>	Profile type to be used for the 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>voice_codec_type</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 • 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)

Table 6-42 Parameters for *cnfprofelemvoice* Command (continued)

Parameter	Description
<i>pktPeriod</i>	Voice packetization period (defined in milliseconds). <ul style="list-style-type: none"> • 5 • 10 • 20 • 30 • 40
<i>sid</i>	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

Step 3 To configure the voiceband data element for a specified profile, enter the **cnfprofelemvbd** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfprofelemvbd <profileType> <profileNumber> <codecType>
<pktPeriod>
```

Replace the above arguments with the values listed in [Table 6-43](#) for the **cnfprofelemvbd** command.

Table 6-43 Parameters for *cnfprofelemvbd* Command

Parameter	Description
<i>profileType</i>	Profile type to be used for the 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

Table 6-43 Parameters for *cnfprofelemvbd* Command (continued)

Parameter	Description
<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 • 14 = G.723.1a-L • 15 = Lossless (VAD must be off)
<i>pktPeriod</i>	Voice packetization period (defined in milliseconds). <ul style="list-style-type: none"> • 5 • 10 • 20 • 30 • 40

Step 4 To specify the priority preference order for the profile lists, enter the **cnfprofneg** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfprofneg <profileNegotiationOption>
```

Profiles can be from the call agent local connection option (LCO) list, local MIB, or a list received from the remote gateway in the session descriptor protocol (SDP) data.

Replace *<profileNegotiationOption>* with one of the following values:

- 1 = LCO list, remote SDP data list, local MIB
- 2 = LCO list, local MIB, remote SDP data list
- 3 = Remote SDP data list, LCO list, local MIB
- 4 = Remote SDP data list, local MIB, LCO list
- 5 = Local MIB, LCO list, remote SDP data list
- 6 = Local MIB, remote SDP data list, LCO list

You have completed modifying the switched AAL2 PVC operating mode profile table. Proceed to the [“Configuring AAL2 PVC Parameters”](#) section on page 6-63.

Configuring AAL2 PVC Parameters

Complete the following steps to configure AAL2 PVC parameters:

Step 1 To configure the holdover and maximum wait time arguments, enter the **cnfaal2timerparams** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfaal2timerparams <VadTimer> <CidFillTimer>
```

Replace *<VadTimer>* with the VAD holdover time in the range 250–65535 ms. Default is 250 ms.

Replace *<CidFillTimer>* with the maximum wait time for cell content filling when the next packet is not ready. Range is 250–65535 ms. Default is 250 ms.

Step 2 To enable or disable three parameters regarding the transport of CAS signaling, enter the **cnfaal2transparams** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfaal2transparams <DtmfRelay> <CasBits> <Type3Redundancy>
```

Replace the above arguments with the values listed in [Table 6-44](#) for the **cnfaal2transparams** command.

Table 6-44 Parameters for cnfaal2transparams Command

Parameter	Description
<i>DtmfRelay</i>	Value to enable or disable DTMF tone transport as AAL2 type 3 packets. <ul style="list-style-type: none"> 1 = On. DTMF relay using RFC 2833 2 = Off. DTMF pass through (Default) <p>Note The <i>DtmfRelay</i> argument value must be set to 1 (on) if you are using codecs other than G.711 and G.726.</p>
<i>CasBits</i>	Value to enable or disable CAS bits transportation. <ul style="list-style-type: none"> 1 = On 2 = Off (Default)
<i>Type3Redundancy</i>	Value to enable or disable triple redundancy protection for type 3 packets. <ul style="list-style-type: none"> 1 = On (Default) 2 = Off

You have completed configuring the switched AAL2 PVC operating mode parameters. Proceed to the [“Configuring the Call Agent Interface”](#) section on page 6-63.

Configuring the Call Agent Interface



Note

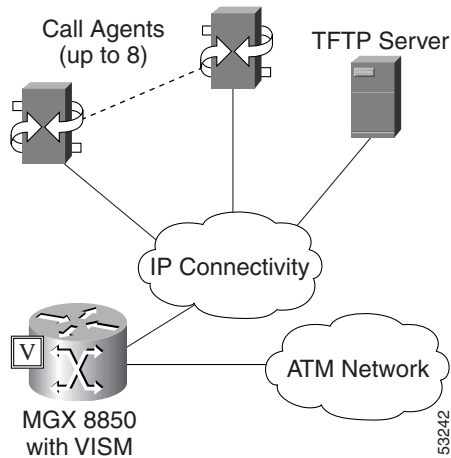
The CLI call agent configuration commands are used for the VoIP switching and switched AAL2 PVC operating modes only for xGCP protocols. If your application requires the AAL2 trunking operating mode, do not use the CLI call agent configuration commands described in this section.

VISM can use one to eight call agents to accomplish the following:

- Receive backhauled signaling
- Perform call setup
- Perform call teardown

VISM uses IP connectivity in order to communicate with the call agents (see [Figure 6-1](#)).

Figure 6-1 VISM to Call Agent Communication



Physical connectivity is through a PVC on an MGX 8000 Series platform PXM card OC-3 port, to a router (in the IP Connectivity cloud in [Figure 6-1](#)), and then to the call agents.

Logical IP connectivity is performed by resolving domain name and IP address associations. The associations are accomplished in the following ways:

- Statically, by using the CLI call agent configuration commands.
- Dynamically, by using an external domain name server (DNS), which is connected to VISM through IP connectivity.

[Figure 6-1](#) shows a TFTP server which also has an IP connection to VISM.

Complete the following tasks to configure the call agent interface:

1. [Configuring Domain Names and IP Addresses, page 6-65](#)
2. [Setting Up Call Agents and Protocols, page 6-66](#)
3. [Configuring Gateway Control Protocols, page 6-69](#)
4. [Configuring ISDN PRI Backhaul, page 6-73 \(optional\)](#)

Configuring Domain Names and IP Addresses

Complete the following steps to configure domain names and IP addresses for VISM cards and call agents:

- Step 1** To specify a domain name for the VISM card, enter the **cnfvismdn** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfvismdn <domain_name>
```

Replace the *domain_name* argument value with a text string of up to 64 alphanumeric characters; spaces are not allowed. Default name is cisco.com as shown in the following example:

```
PXM1E_SJ.1.28.VISM8.a > cnfvismdn cisco.com
```

- Step 2** To specify the IP address and a subnet mask for the VISM card, type the **cnfvismip** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfvismip <vismIpAddr> <netMask> [vismBearerIpAddr bearerNetMask]
```

Replace the above arguments with the values listed in [Table 6-45](#) for the **cnfvismip** command.

Table 6-45 Parameters for cnfvismip Command

Parameter	Description
<i>vismIpAddr</i>	Control IP address, in dotted decimal format (nnn.nnn.nnn.nnn), of the current VISM card.
<i>netMask</i>	Control local network subnet mask, in dotted decimal format (nnn.nnn.nnn.nnn). The recommended value is 255.255.255.248 .
<i>/vismBearerIpAddr/</i>	(Optional) Bearer IP address, in dotted decimal format (nnn.nnn.nnn.nnn).
<i>/bearerNetMask/</i>	(Optional) Bearer IP subnet mask, in dotted decimal format (nnn.nnn.nnn.nnn).

The following example shows the IP address and subnet mask configured for the VISM card and the output of the command.

```
PXM1E_SJ.1.28.VISM8.a > cnfvismip 172.29.52.003 255.255.255.248
Attaching network interface atm0... done.
```

- Step 3** To set up the domain names and IP address for the call agent(s), enter the **cnftftpdn** command.

```
PXM1E_SJ.1.28.VISM8.a > cnftftpdn <domain_name>
```

- Step 4** Replace the *domain_name* argument value with the domain name you entered in [Step 1](#).



Note You must use the *domain_name* argument value you entered for [Step 1](#) when configuring the call agent(s) *domain_name* argument in [Step 3](#).

```
PXM1E_SJ.1.28.VISM8.a > cnftftpdn cisco.com
```

- Step 5** Repeat [Step 1](#) through [Step 3](#) to configure your remaining VISM cards and call agents.

You have completed configuring domain names and IP addresses for VISM cards and call agents. Proceed to the [“Setting Up Call Agents and Protocols”](#) section on page 6-66.

Setting Up Call Agents and Protocols

Complete the following steps to set up call agents and media gateway control protocols:

Step 1 To add a domain name for a call agent, enter the **adddn** command.

```
PXM1E_SJ.1.28.VISM8.a > adddn <mg_domain_num> <mg_domain_name> /<Resolution_Type>/
```

Replace the above arguments with the values listed in [Table 6-46](#) for the **adddn** command.

Table 6-46 Parameters for adddn Command

Parameter	Description
<i>mg_domain_num</i>	Domain number used to identify the domain in the range 1–11.
<i>mg_domain_name</i>	Call agent name, which is a text string of 1 to 64 alphanumeric characters.
<i>/Resolution_Type/</i>	(Optional) Resolution type to configure for the specified domain name. It can be one of the following values: <ul style="list-style-type: none"> 1 = Internal only (Default). You must statically provision all IP addresses on the VISM card for the domain name. The VISM card does not resolve the domain name using an external domain name server (DNS). 2 = External only. The VISM card attempts to resolve the domain name using an external DNS. Statistically configured IP addresses for this domain name are not used. 3 = Internal first. The VISM card attempts to resolve the domain name using an external DNS. The VISM card uses the statistically provisioned IP addresses for this domain name before using IP addresses from external resolution. 4 = External first. The VISM card attempts to resolve the domain name using an external DNS. The VISM card uses IP addresses from external resolution before using the statistically provisioned IP addresses.

Step 2 If you are not using an external DNS to resolve domain names (*Resolution_Type* = 1 in [Step 1](#)), proceed to [Step 3](#).

If you are using an external DNS to resolve domain names, proceed to [Step 3](#).

Step 3 To add the IP address for the domain name you added in [Step 1](#), enter the **addnip** command.

```
PXM1E_SJ.1.28.VISM8.a > addnip <Resolution_index> <domain_name> <IP_address> <preference>
```

Replace the above arguments with the values listed in [Table 6-47](#) for the **addnip** command.

Table 6-47 Parameters for addnip Command

Parameter	Description
<i>Resolution_index</i>	Resolution number of the domain name. Range is 1–88.
<i>domain_name</i>	Call agent name, which is a text string of 1 to 64 alphanumeric characters.

Table 6-47 Parameters for adddnip Command (continued)

Parameter	Description
<i>IP_address</i>	IP address which corresponds to the <i>domain_name</i> argument value in the following format: nnn.nnn.nnn.nnn.
<i>preference</i>	IP address resolution preference order in the range from 1 (highest) to 8 (lowest). Note The preference order must be unique for all IP addresses in the call agent name you specify with the <i>domain_name</i> argument.

Step 4 To add the MGC to a redundancy group, enter the **addmgcgrpentry** command.

```
PXM1E_SJ.1.28.VISM8.a > addmgcgrpentry <Red_Group_Num> <mgcRedGrpMgcNum> <mgcRedGrpPref>
```

Replace the above arguments with the values listed in [Table 6-48](#) for the **addmgcgrpentry** command.

Table 6-48 Parameters for addmgcgrpentry Command

Parameter	Description
<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>mgcRedGrpMgcNum</i>	Call agent identification number. Range is 1–8.
<i>mgcRedGrpPref</i>	Call agent preference value—The preference of the MGC within the group. Range is 1 (highest) to 8 (lowest). Default is 1.

Step 5 To change the parameters of the MGC group, enter the **cnfmgcgrpparam** command.



Note This step is optional; use only if you need to change the MGC group parameters.

```
PXM1E_SJ.1.28.VISM8.a > cnfmgcgrpparam <Red_Group_Num> <mgcRedGrpStateChgNtfy>
|<mgcRedGrpPriority>|
```

Replace the above arguments with the values listed in [Table 6-49](#) for the **cnfmgcgrpparam** command.

Table 6-49 Parameters for cnfmgcgrpparam Command

Parameter	Description
<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>mgcRedGrpStateChgNtfy</i>	State change notification. This parameter determines if messages, such as RSIPs, are sent to notify the call agent of a VISM card state change. <ul style="list-style-type: none"> 1 = Enable (Default) 2 = Disable
<i>mgcRedGrpPriority</i>	(Optional) Call agent priority value. It can be one of the following: <ul style="list-style-type: none"> 0 = No gateway initiated requests or commands are sent. Range is from 1 (highest) to 8 (lowest). Default is 1.

Step 6 To associate a call agent redundancy group with a gateway control protocol, enter the **addmgcgrpprotocol** command.

```
PXM1E_SJ.1.28.VISM8.a > addmgcgrpprotocol <Red_Group_Num> <protocol_number>
|<Qrntn_Persist> <Qrntn_Def> <Sign_OnOff> <Prov_Resp> <RspAck_Attr> <Disc_Proc>
<Cancel_Graceful>|
```

Replace the above arguments with the values listed in [Table 6-50](#) for the **addmgcgrpprotocol** command.

Table 6-50 Parameters for addmgcgrpprotocol Command

Parameter	Description
<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>protocol_number</i>	Protocol number. Values are <ul style="list-style-type: none"> • 1 = MGCP 0.1 • 2 = SGCP 1.1+ • 3 = SRCP 1.0.2 • 4 = SGCP 1.5 • 5 = MGCP 1.0 • 6 = TGCP 1.0
<i>/Qrntn_Persist/</i>	(Optional) Sets the quarantine handling method for persistent events. Values are <ul style="list-style-type: none"> • 1 = Quarantine persistent events (Default) • 2 = Do not quarantine persistent events
<i>/Qrntn_Def/</i>	(Optional) Sets the default quarantine handling method for each protocol. Values are <ul style="list-style-type: none"> • 1 = Step, process (Default for MGCP 1.0 and TGCP 1.0) • 2 = Step, discard (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5) • 3 = Loop, process • 4 = Loop, discard <p>Note Step means one notification command is generated per notification request. Loop means multiple notification commands are generated per notification request.</p>
<i>/Sign_OnOff/</i>	(Optional) Value to delete events. <ul style="list-style-type: none"> • 1 = Delete events from the previous list which are not present in the current list. (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5) • 2 = Delete events from the previous list, only if the event is present in the current list with a hyphen (-) as the parameter. (Default for MGCP 1.0 and TGCP 1.0)

Table 6-50 Parameters for `addmgcgrprotocol` Command (continued)

Parameter	Description
<code>/Prov_Resp/</code>	(Optional) Value to enable or disable the sending of a provisional response. <ul style="list-style-type: none"> 1 = On (Default for MGCP 1.0 and TGCP 1.0) 2 = Off (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<code>/RspAck_Attr/</code>	(Optional) Value to enable or disable sending a response acknowledgment. <ul style="list-style-type: none"> 1 = On (Default for MGCP 1.0 and TGCP 1.0) 2 = Off (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<code>/Disc_Proc/</code>	(Optional) Value to enable or disable the disconnect method, which indicates that the endpoint has become disconnected and is now trying to establish connectivity. <ul style="list-style-type: none"> 1 = On (Default for MGCP 1.0 and TGCP 1.0) 2 = Off (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<code>/Cancel_Graceful/</code>	(Optional) Value to enable or disable VISM cancelling a previously issued graceful restart in progress command. <ul style="list-style-type: none"> 1 = On (Default for MGCP 1.0 and TGCP 1.0) 2 = Off (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)

Step 7 Repeat [Step 1](#) through [Step 6](#) for each call agent that you need to make active in your application. You have completed setting up call agents and media gateway control protocols. Proceed to the [“Configuring Gateway Control Protocols”](#) section on page 6-69, if necessary.

Configuring Gateway Control Protocols

Complete the following steps to configure gateway control protocols.



Note

Use the configure gateway control CLI commands in this section only if you need to configure argument values for the commands that are different than the default argument values.

Step 1 To configure a port number for a particular call agent and protocol, enter the `cnfxgcppeer` command.

```
PXM1E_SJ.1.28.VISM8.a > cnfxgcppeer <mgcNumber> <protocolNumber> <UDP_port>
```

Replace the above arguments with the values listed in [Table 6-51](#) for the **cnfxgcppeer** command.

Table 6-51 Parameters for cnfxgcppeer Command

Parameter	Description
<i>mgcNumber</i>	A number by which the call agent is identified in the range 1–8.
<i>protocolNumber</i>	Protocol number. Values are <ul style="list-style-type: none"> • 1 = MGCP 0.1 • 2 = SGCP 1.1+ • 4 = SGCP 1.5 • 5 = MGCP 1.0 • 6 = TGCP 1.0
<i>UDP_port</i>	UDP port number in the range 1025–65535. Default is 2427.

Step 2 To specify the maximum waiting time before a Restart in Progress (RSIP) message is sent to the call agent, enter the **cnfxgcpmwd** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfxgcpmwd <timeout value>
```

Replace *<timeout value>* with the maximum wait time in the range 0–600000 ms. Default is 10000 ms.



Note The *<timeout value>* argument value sets the maximum wait time for the entire VISM card, not for a particular call agent.

Step 3 To specify the VISM minimum and maximum wait time and number of retries for a call agent message acknowledgment, enter the **cnfxgcpretry** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfxgcpretry <minTimeout> <retryCount> <maxTimeout>
```

Replace the above arguments with the values listed in [Table 6-52](#) for the **cnfxgcpretry** command.

Table 6-52 Parameters for cnfxgcpretry Command

Parameter	Description
<i>minTimeout</i>	Minimum time (defined in milliseconds) VISM waits for an acknowledgment message from the call agent. Range is 1–100000 ms. Default is 500 ms.
<i>retryCount</i>	Number of times that a call agent retransmits an unacknowledged message before determining that VISM is unreachable. Range is 1–10. Default is 3.
<i>maxTimeout</i>	Maximum time (defined in milliseconds) VISM waits for an acknowledgment message from the call agent. Range is 0–100000 ms.

Step 4 To specify the type of bearer channel VISM uses, if one is not specified by the call agent in protocol local connection options, enter the **cnfxgcpbt** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfxgcpbt <networkType> <vcType> |<connType>|
```

Replace the above arguments with the values listed in [Table 6-53](#) for the **cnfxgcpbt** command.

Table 6-53 Parameters for cnfxgcpbt Command

Parameter	Description
<i>networkType</i>	Network type. Values are <ul style="list-style-type: none"> • 1 = IP • 2 = ATM
<i>vcType</i>	Virtual circuit type. Values are <ul style="list-style-type: none"> • 1 = Permanent virtual circuit (PVC) • 2 = Switched virtual circuit (SVC)
<i>/connType/</i>	(Optional) Connection type. Values are <ul style="list-style-type: none"> • 1 = ATM Adaptation Layer Type 1 (AAL1) • 2 = ATM Adaptation Layer Type 2 (AAL2) • 3 = Not applicable <p>Note You must select 3 (not applicable) if you selected a <i>networkType</i> argument value of 1 (IP).</p>

Step 5 To designate xGCP events as persistent, enter the **addxgcppersistevt** command.



Note Do not complete this step if persistent events are not required for your application.



Note This command is not applicable for TGCP.

```
PXM1E_SJ.1.28.VISM8.a > addxgcppersistevt <index> <persistent_event>
```

Replace *<index>* with a package event number in the range 1–16.

Replace *<persistent_event>* with one of the following values:

- r/co3 = VISM initiated AAL2 type 3 packet (CO3) network continuity test
- r/co4 = Network continuity test detect
- g/ft = Fax tone
- g/mt = Modem tone
- g/vbd = Voiceband data
- g/vbdt = Voiceband data termination
- l/hu, bl/hu = On hook
- l/hd, blhd = Off hook
- ms/ans, dt/ans, md/ans, mo/ans = Answer
- ms/sup, dt/sup, md/sup = Setup
- ms/rel, dt/rel, md/rel, mo/rel = Release
- ms/rtc, dt/rlc, md/rlc, mo/rlc = Release complete

- ms/res, dt/res, md/res = Resume
- ms/sus, dt/sus, md/sus = Suspend
- md/awk = Acknowledgment wink
- mo/rbz = Reverse make busy

Step 6 To specify the SRCP parameters for communication between VISM and the call agent, enter the **cnfsrcppeer** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsrcppeer <peerId> <port>
```

Replace *<peerId>* with a (call agent) identification number in the range 1–8.

Replace *<port>* with the UDP port number in the range 1025–65535.



Note If you do not execute this command, the default MGCP/SGCP port number is 2428.

Step 7 To configure the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group, enter the **cnfsrcppeergpparam** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsrcppeergpparam <Red_Group_Num> <Heart_geat_interval>
<max_pdu>
```

Replace the above arguments with the values listed in [Table 6-54](#) for the **cnfsrcppeergpparam** command.

Table 6-54 Parameters for cnfsrcppeergpparam Command

Parameter	Description
<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>Heart_geat_interval</i>	Interval between heartbeats (defined in milliseconds). Values are <ul style="list-style-type: none"> • 0 • Range 100–65535
<i>max_pdu</i>	Maximum allowable UDP size. Range is 4095–65535.

Step 8 To configure the minimum and maximum timeout periods, and retry attempts, for transmitting SRCP commands to the call agent, enter the **cnfsrcpretry** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsrcpretry <minTimeout> <retryCount> <maxTimeout>
```

Replace the above arguments with the values listed in [Table 6-55](#) for the **cnfsrcpretry** command.

Table 6-55 Parameters for cnfsrcpretry Command

Parameter	Description
<i>minTimeout</i>	Minimum SRCP timeout (defined in milliseconds). Range is 1–10000. Default is 500.
<i>retryCount</i>	Maximum number of SRCP retries. Range is 0–10. Default is 3.
<i>maxTimeout</i>	Maximum SRCP timeout (defined in milliseconds). Range is 1– 10000. Default is 500.

Step 9 To configure CO4 bearer continuity, enter the **cnfco4timer** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfco4timer <timeout>
```

Replace *<timeout>* with a value in the range 50–10000 ms. Default is 1000 ms.

Step 10 You have completed configuring gateway control protocols. Proceed to the [“Configuring ISDN PRI Backhaul” section on page 6-73](#) if necessary.

Configuring ISDN PRI Backhaul

ISDN PRI backhaul configuration consists of setting up RUDP session structures:

- Session sets
- Session groups
- Sessions

A session group applies to a specified call agent and allows automatic switching to another session in the group if an active session fails. You can configure individual sessions when you have completed setting up the session sets and session groups. Refer to [Chapter 5, “VISM/VISM-PR Functional Description,”](#) for more information on session structures.



Note

Use the commands in this section only if backhauling of ISDN PRI signaling to the call agent is required for your application.

Complete the following steps to configure ISDN PRI backhaul:

Step 1 To create a session set, enter the **addsessset** command.

```
PXM1E_SJ.1.28.VISM8.a > addsessset <set_number> <fault_tolerant>
```

Replace *<set_number>* with a value in the range 1–16.

Note Only session set number 1 is supported.

Replace *<fault_tolerant>* with one of the following values:

- 1 = Fault tolerance
- 2 = No fault tolerance

Step 2 To create a session group for a session set and a call agent, enter the **addsesgrp** command.

```
PXM1E_SJ.1.28.VISM8.a > addsesgrp <group_number> <set_number> <mgc_name>
```

Replace the above arguments with the values listed in [Table 6-56](#) for the **addsesgrp** command.

Table 6-56 Parameters for addsesgrp Command

Parameter	Description
<i>group_number</i>	Identifying session group number in the range 1–16.

Table 6-56 Parameters for addsesgrp Command (continued)

Parameter	Description
<i>set_number</i>	Set number in the range 1–8. Note Only session set number 1 is supported.
<i>mgc_name</i>	Domain name of the call agent, a text string 1–64 alphanumeric characters.

Step 3 To create an ISDN PRI backhaul RUDP session within a specified group, enter the **addses** command.

**Note**

The following session configuration commands apply to a single session which is identified by the first argument, the *session_number*.

```
PXM1E_SJ.1.28.VISM8.a > addses <session_number> <group_number> <priority> <local_port>
<remote_port>
```

Replace the above arguments with the values listed in [Table 6-57](#) for the **addses** command.

Table 6-57 Parameters for addses Command

Parameter	Description
<i>session_number</i>	Identifying session number in the range 1–64. Note Up to 64 sessions can be created in a session group.
<i>group_number</i>	Identifying session group number to which the session is added in the range 1–16. Note Currently, only group 1 is supported.
<i>priority</i>	Priority level determines which session becomes active if a session fails within the same group. Range is 1 (highest) to 4 (lowest).
<i>local_port</i>	Local port number is the VISM port number used for the session. Range is 1124–49151.
<i>remote_port</i>	Remote port number is the call agent port number used for the session. Range is 1124–65535.

Step 4 To change the timeout period for sending out an acknowledgment and the maximum number of acknowledgments that can accumulated before sending them, enter the **cnfsesack** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesack <session_num> <acknowledgement_timeout>
<acknowledgement>
```

Replace the above arguments with the values listed in [Table 6-58](#) for the **cnfsesack** command.

Table 6-58 Parameters for cnfsesack Command

Parameter	Description
<i>session_num</i>	Identifying session number in the range 1–64.

Table 6-58 Parameters for *cnfsesack* Command (continued)

Parameter	Description
<i>acknowledgement_timeout</i>	Timeout period (defined in milliseconds) to send an acknowledgment. Range is 100–65535 ms. Default is 300.
<i>acknowledgement</i>	Maximum number of acknowledgments that can be accumulated before sending an acknowledgment. Range is 0–255. Default is 3.

- Step 5** To configure the maximum number of resets that VISM performs before a connection is reset, enter the **cnfsesmaxreset** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesmaxreset <session_number> <resets>
```

Replace *<session_number>* with the value you entered for the *session_num* argument in [Step 4](#).

Replace *<resets>* with the maximum number of resets that the VISM card performs before a connection is reset. Range is 0–255. Default is 5.

- Step 6** To configure the maximum segment size VISM can receive after sending a SYN message, enter the **cnfsesmaxseg** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesmaxseg <session_number> <segment_size>
```

Replace *<session_number>* with the value you entered in [Step 4](#).

Replace *<segment_size>* with the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message. Range is 30–65535.

- Step 7** To configure the maximum number of segments that can be sent without getting an acknowledgment for a specific RUDP session, enter the **cnfsesmaxwindow** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesmaxwindow <session_number> <window_size>
```

Replace *<session_number>* with the value you entered in [Step 4](#).

Replace *<window_size>* with a value in the range 1–64.

- Step 8** To configure the amount of idle time before sending a null segment, enter the **cnfsesnullsegmtout** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesnullsegmtout <session_number> <timeout>
```

Replace *<session_number>* with the value you entered in [Step 4](#).

Replace *<timeout>* with the idle time before a null segment is sent. Range is 0–65535 ms. Default is 2000 ms.

- Step 9** To configure the maximum number of out-of-sequence packets that will be accumulated before sending an EACK packet, enter the **cnfsesoutofseq** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesoutofseq <session_number> <packets>
```

Replace *<session_number>* with the value you entered in [Step 4](#).

Replace *<packets>* with the maximum number of out-of-sequence packets that can be accumulated before an EACK packet is transmitted. Range is 0–255.



Note If you specify 0 for the *<packets>* argument, a DACK message is sent immediately upon receiving an out-of-sequence packet.

- Step 10** To configure the local (VISM end) and remote (call agent end) port numbers for a session number, enter the **cnfsesport** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesport <session_number> <local_port> <remote_port>
```

Replace the above arguments with the values listed in [Table 6-59](#) for the **cnfsesport** command.

Table 6-59 Parameters for cnfsesport Command

Parameter	Description
<i>session_number</i>	Value you entered in Step 4 .
<i>local_port</i>	Local port number. The VISM port number used for the session. Range is 1124–49151.
<i>remote_port</i>	Remote port number. The call agent port number used for the session. Range is 1124–65535.

- Step 11** To configure the retransmission of unacknowledged packet timeout value and the maximum number of consecutive retransmission attempts before the connection is considered failed, enter the **cnfsesretrans** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesretrans <session_number> <retransmit_timeout>
<max_retransmits>
```

Replace the above arguments with the values listed in [Table 6-60](#) for the **cnfsesretrans** command.

Table 6-60 Parameters for cnfsesretrans Command

Parameter	Description
<i>session_number</i>	Value you entered in Step 4 .
<i>retransmit_timeout</i>	Timeout period (defined in milliseconds) to send an acknowledgment. Range is 100–65535 ms. Default is 600 ms.
<i>max_retransmits</i>	Maximum number of retransmissions. Range is 0–255. Default is 3.

- Step 12** To configure the amount of time VISM waits for the transfer state before executing an auto reset, enter the **cnfsesstatetmout** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsesstatetmout <session_number> <timeout>
```

Replace *<session_number>* with the value you entered in [Step 4](#).

Replace *<timeout>* with the maximum number of milliseconds that VISM waits for a transfer state before executing an auto reset. Range is 0–65535. Default is 2000.

- Step 13** To configure the maximum number of attempts to synchronize VISM with the call agent, enter the **cnfsessyncatmps** command.

```
PXM1E_SJ.1.28.VISM8.a > cnfsessyncatmps <session_number> <sync_attempts>
```

Replace *<session_number>* with the value you entered in [Step 4](#).

Replace `<sync_attempts>` with the maximum number of attempts to synchronize with the call agent. Range is 1–32. Default is 5.

- Step 14** Repeat [Step 4](#) through [Step 13](#) for all additional session numbers, as required for your application. You have completed configuring ISDN PRI backhaul.

The basic configuration of your VISM cards is complete. Use the configuration instructions in this chapter to reconfigure VISM for your application needs as they change. Use the commands described in [Chapter 7, “CLI Commands,”](#) to further configure your VISM cards, if necessary.

Additional VISM Features

The following features are available for users of VISM 3.2:

- Support for the MGCP 0.1 subset of the MGCP 1.0 protocol



Note The restart method (RM) is not defined as part of the MGCP 0.1 subset, and is not supported.

- Verified MGCP 0.1 protocol compliance
- PBX CAS event delivery to a call agent using MGCP 0.1:
 - DTMF: Wink and ground start
 - MF: Wink
 - TFTP download of CAS variant state machine



Note RFC 3064 CAS packages—BL, MS, and DT—are not supported.

- Interoperability enhancements:
 - Configurable codec strings (IANA naming conventions as well as customized ones)
 - Codec negotiation with configurable preference order
- Exponential backoff for:
 - XGCP retry timers
 - SRCP retry timers
 - Configurable per CAS variant
- DTMF Relay using Cisco-rtp (FRF-11 Annex A based)
- Enhancement to Fax/modem up-speed/pass-through procedures:
 - Configurable CAC failure and carrier loss policies
 - Up-speed to clear channel
- Added support for G.726: 16, 24, 32, and 40 kbps, with packetization periods ranging from 10 to 40 ms
- Support for VBR-rt (variable bit rate real time) and VBR-nrt (non-real time) ATM traffic classes, including traffic shaping to the relevant traffic descriptors

- Configurable VAD model parameter for traffic engineering
- In E1 applications, support for 31 DS0 per span and a total of 248 channels per card
- Tested cRTP support through RPM for voice and voice band data calls
- Verified bearer interoperability with 3810
- Support for card level coexistence of switched AAL2 mode (under Call Agent control) and trunked AAL2 mode on PVCs, on an endpoint (DS0) basis
- Added support for custom profile 110 and 200 (clear channel), ITU profiles 3 and 8
- User-configurable AAL2 Silence Indicator Description (SID) for all profiles
- Type 3 Packet Support for proxy ringback (xrbk), packet side bearer continuity check (co3/co4 COT), and midcall DTMF relay
- Connection admission control (CAC) enhancements:
 - Patented CAC method factoring in VAD and subcell multiplexing savings
 - Configurable VAD model parameter for traffic engineering
- Configurable AAL2 cell fill timer
- AAL2 alarm enhancements: per span, VC, and per channel (CID) conditioning
- Display, clear, and reset AAL2 performance related counters
- In E1 AAL2 trunking applications, support for 31 DS0 per span and a total of 248 channels per card
- Verified bearer interoperability with 3810 and third-party vendors
- Infrastructure work and enhanced support for three operating modes: VoIP switching, AAL2 trunking, and switched AAL2 PVC
- The ability to enable or disable the call agent protocol SDP OST feature in the event the peer gateway may or may not support SDP OST. This feature allows interoperability with the Cisco AS5300 Universal Access Server and other equipment
- The ability for VISM to perform as either the network or user side of the LAPD protocol for PRI backhaul
- CCS/PRI backhaul between VISM and a call agent in VoIP mode
- Support VoIP G.729ab compression
- Idle channel suppression
- Support for setting the IP precedence bit
- Support for Q.50 CAS signaling variant
- Negotiable packetization period
- AAL2 subcell multiplexing
- E1 back card support in AAL2 trunking mode
- E1 back card support (VoIP mode only)
- Provides 8 standard T1 interfaces with B8ZS, AMI and HDB3 line coding
- Support for voice over ATM using AAL2 cells (multiplexing only, no LLC/SNAP encapsulation.
- VoIP using AAL5 cells to RFC 1889
- Support for both PCM a-law and mu-law
- Programmable 24, 32, 48, 64, 80, 96, 112, 128 ms near end echo cancellation

- Voice compression to G.711 and G.726-32k standards
- Nx64 clear channel (N = 1 only) support
- Voice activity detection (VAD) and comfort noise generation (CNG) using variable threshold energy (Cisco proprietary)
- Support for CCS signaling transport across an AAL5 trunk
- Support for Fax and modem VoIP bearer transmissions
- Support for dual (redundant) virtual circuits across the packet network
- Support for full continuity testing (COT). Supports origination and terminating loopback and transponder COT towards the packet bearer and the TDM sides
- Support for loop timing, payload and line loopbacks
- 1:N cold redundancy using SRM-3T3 capabilities (bulk mode support for T1 lines only) for switched calls
- 1:N hot redundancy for trunking applications only
- Courtesy downing of ongoing voice calls when the VISM is taken out of service for maintenance or other reasons

Mid-Call DTMF

The mid-call dual tone multifrequency (DTMF) feature enables the collection and notification of digits to the call agent following a call setup for an endpoint, and supports the out-pulsing of DTMF digits at a call agent's request. This feature is used for services that require two stage dialing, such as calling card applications.

Mid-call DTMF is supported for all the CAS variants, for DTMF mode only.

Configurable Jitter Buffer

The configurable jitter buffer feature provides configuration of jitter buffer mode and initial delay time on a codec basis. Fax, modem, and CCD calls have less packet loss with the addition of this feature.

Adjustable Gain

The adjustable gain feature allows you to adjust gain on a DS0 channel basis for both input and output signals. The adjustable gain can be set when there is active call going on at the DS0 channel, and at both bounded non-active and unbounded endpoints.

Adjustable Music On-Hold Threshold

The adjustable music on-hold threshold feature allows you to adjust the dB level, on a DS0 basis, of when DSPs interpret TDM side silence or voice.

CALEA

The Commission on Accreditation for Law Enforcement Act (CALEA) feature, used with VoIP applications, provides data (eavesdropping) about an intercepted subject (the user/subscriber) in two forms for both the receive and transmit directions:

- Call identifying data
- Call content data

The call identifying data (called number) is provided by call agents. The call content data (voice) is provided by the edge/access routers (7200, for example) and trunking gateways (MGX 8000 series platforms) in combination with VISM cards.

The VISM CALEA implementation supports the CALEA law intercept confirmation interface.

MGC Redundancy

The media gateway controller (MGC) redundancy feature provides redundancy for call agents on VISM cards. You can associate one or more call agents as members of a redundancy group.

An MGC redundancy group consists of one or more MGCs (which are identified by their domain name). An MGC can be part of one redundancy group, although there can be multiple MGCs per redundancy group. At any given time, only one MGC in the redundant group is active.

This feature requires you to add more than one domain name and configure these as redundant call agents or the same logical MGC. Only the IP addresses corresponding to each physical entity are returned by the DNS server. In order to allow VISM to traverse all the IP addresses, you must identify these physical entities as redundant call agents.

External DNS

The external domain name server (DNS) feature allows VISM to use an external DNS to resolve the IP address you configure. The domain names can be MGCs, call agents, or trivial file transfer protocol (TFTP) servers used for CAS file downloads. Resolution of IP addresses can be configured with the following methods:

- Internal static tables only
- External DNS only
- External DNS, followed by the internal static tables if the external DNS method fails
- Internal static tables, followed by the external DNS if the internal static table method fails

2 IP Address Support

The 2 IP address allows you to add separate IP addresses for the control and data paths for VISM. This feature removes the restriction of control and data traffic going to two different domains.

VoIP Trunking

The Voice over IP (VoIP) trunking feature allows the VISM to connect to the PBX, or central office digital systems, using T1/E1 digital interfaces and converts the TDM bit stream into RTP packets, after ECAN and compression, and transports it over the IP network.

No call agent is required for setting up and tearing down calls. You must configure the DS0 circuits. The connection between VISM and the first router will be ATM after which it will be IP only. VISM and the router can have one or multiple PVCs to transport the data. You have the option to configure PVC for bearer or control. If the PVC is configured as bearer and no control PVC exists, then PRI signal traffic and bearer traffic will go through this PVC. If you configure separate PVCs for control and bearer, PRI signaling will go through control traffic only. You can modify some of the connection parameters after it is added.

CAS is transported to the far end using a Cisco proprietary format (not NSEs). PRI is transported over RUDP to the far end once the trunk is provisioned between the originating and terminating VISM.

PRI transport is handled in a way identical to PRI backhaul except that the PRI traffic is sent to remote gateway instead of a call agent. You can configure one line for PRI trunking and another line for PRI backhauling.

You must provision the LAPD trunk when using this feature. You must configure a line number, remote gateway IP address, local UDP port, and remote gateway UDP port, and then open a trunk. You must then configure the D-channel as a trunk or backhaul:

- To configure the D channel as trunk, use the **addlapdtrunk** command prior to the **addlapd** command. If the **addlapd** command has been previously executed for that line, the command is rejected.



Note Two D channels on one line are not supported.

- To configure the D channel as backhaul, use the **addses** command prior to the **addlapd** command. If you do not configure either trunk or session, the **addlapd** command is rejected.

T.38 Fax Relay

The ITU T.38 recommendation for fax relay feature assists fax transmission over IP networks. You must configure T.38 parameters—fax rate, information field size, data packet size, data redundancy, and NSF values—to use this feature.



Note

You must use codec template 3 with the T.38 fax relay feature enabled. The T.38 feature supports 120 DS0s when enabled.

CAS Features

You can configure different CAS packages on different endpoints. The following CAS features are supported in this release.

Programmable Tone Plans

You can provision a tone plan in a CAS independent scenario so that any inband call progress tone can be played on any endpoint (CAS, CCS, or clear channel) when signaled by the call agent.

Table 6-61 contains the built-in (preconfigured) version 1 tone plans, which you cannot modify or remove from the system.

Table 6-61 Built-in (Preconfigured) Tone Plans

Tone Plan	Tone Plan	Tone Plan	Tone Plan
ITU ¹	Finland	Japan	Singapore
North America	France	Korea Republic	Slovakia
Argentina	Germany	Luxembourg	Slovenia
Australia	Greece	Malaysia	South Africa
Austria	Hong Kong	Mexico	Spain
Belgium	Hungary	Netherlands	Sweden
Brazil	Iceland	New Zealand	Switzerland
Canada	India	Norway	Taiwan
China	Indonesia	Philippines	Thailand
Cyprus	Ireland	Poland	Turkey
Czech Republic	Israel	Portugal	United Kingdom
Denmark	Italy	Russia	United States

1. ITU = International Telecommunications Union (formerly CCITT).

You can configure provisional tone plans if the built-in tone plans do not meet your application needs. Provisional tone plans are created by assigning new region/country, version, and file names, and configuring the following call progress tones:

- Ringback
- Busy
- Reorder/Congestion
- Dial
- Stutter dial
- Offhook alert/warning

Loop Start, DID, and Delay Dial

The exchange side (FXO) of the loop start protocol is implemented with this release. VISM can accept calls from, and terminate calls to, loop start PBXs. When a PBX sends a subscriber call to the gateway, it sends the loop close signal through the CAS signaling channel. To hang up, it sends the loop-open signal.

Direct inward dial enables a caller outside a company to call internal extensions without having to go through an operator or an attendant. VISM has this ability—it outpulses the digit stream handed down by the call agent.

Dial delay is an E&M signaling protocol similar to wink start. The originating VISM, on receiving a seize (AB=11) from the PBX, responds by sending the delay-dial (AB=11) signal back to the PBX. When the originating VISM is ready to collect the digits, it sends start-dial (AB=00) signal. This operation is symmetric. So the terminating VISM, on seizing a trunk, should receive AB=11 (as an acknowledgment that the trunk is operational). Subsequently when it receives the start signal (AB=00) from the connected PBX, it should outpulse the digits. The rest of the operation is similar to wink-start.

Feature Group D

Feature Group D (FGD) enables long distance calls through one of the following methods:

- Preselected access carrier (AC) by dialing 1 + area code + number.
- Selecting the AC on a per call basis by dialing 101xxxx before the area code and phone number to within a local exchange carrier's (LEC) network in North America.

FGD supports the following protocols:

- Terminating Protocol
- Equal Access North American (EANA)
- Operator Services (OS)

Configure Flash Hook and Glare Condition Attributes

You can configure both flash hook and glare condition attributes. Flash hook configuration allows you to modify the duration of a flash hook. Duration shorter or longer than that configured are interpreted as incoming calls and disconnects. Glare condition attribute configuration allows you to control the CAS direction—incoming, outgoing, or bidirectional—and the glare handling policy—controlling or releasing.

Configure ANI and DNIS Digit Order

You can configure the order in which a call agent sends automatic number identification (ANI) digits—the caller's number—and dial number identification service (DNIS) digits—the called number—to VISM during an outgoing Feature Group D (FGD) call for the endpoints of a specified VISM card line.

RFC 3064 Package Support

This release fully supports the following packages from RFC 3064:

- MS—MF single stage dialing trunks. This includes wink start and immediate start PBX DID/DOD trunks as well as basic R1 and FGD Terminating protocol.
- DT—Immediate start and basic DTMF and dial-pulse trunks.
- MD—North American MF FGD EANA and EAIN, which allows VISM to be at the end office, the carrier, or the tandem side of the circuit.
- MO—FGD Operator Services Signaling, outgoing trunks only.
- BL—DTMF and dial pulse (DP) basic PBX trunks.

RFC 2833 Support

Support for RFC 2833 enables VISM to support DTMF relay using named telephony events (NTEs), named signaling event (NSE) based relay, and Cisco-RTP based relay. For all other tones, VISM uses NSEs.

VISM Network Continuity Test

You can configure VISM network continuity testing with this release.

Configure PVC OAM Cell Parameters

This feature allows you to configure the transmitted and received permanent virtual circuit (PVC) Operations, Administration, and Maintenance (OAM) cell parameters—cell gap, recovery cell count, and unacknowledged cell count.

PXM1E and PXM45 Card-Only Features

You can use the VISM-PR card in combination with any of the following MGX 8000 Series switch Processor Module cards:

- PXM1
- PXM1E
- PXM45

Table 6-62 describes the configuration requirements for VISM/VISM-PR in combination with the MGX 8000 Series switches and supported processor modules.

Table 6-62 VISM/VISM-PR and MGX 8000 Series Switch Support

VISM Module	MGX 8230 with PXM1	MGX 8830 with PXM1E	MGX 8250 with PXM1	MGX 8850 with PXM1	MGX 8850 with PXM1E	MGX 8850 with PXM45
MGX-VISM-8T1	Yes	No	Yes	Yes	No	No
MGX-VISM-8E1	Yes	No	Yes	Yes	No	No
MGX-VISM-PR-8T1	Yes	Yes	Yes	Yes	Yes	Yes
MGX-VISM-PR-8E1	Yes	Yes	Yes	Yes	Yes	Yes

For information on installing and maintaining the PXM1, PXM1E, and PXM45 cards, refer to the *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Hardware Installation Guide Release 2 through 4*.



Note

You cannot use the VISM card in combination with either the PXM1E or PXM45 card.

The VISM-PR card supports 144 channels when used with the G.723.1 codec. The VISM card does not support the G.723.1 codec.

The following VISM-PR features require either the PXM1E or PXM45 card and are not supported if you are using PXM1 cards in your MGX 8000 Series switch chassis:

- [Call Agent-Controlled VoATM AAL1 and AAL2 SVC](#)
- [AAL1 SVC-Based TDM Hairpinning](#)
- [Expanded Clock Source Selection](#)



Note Clock source configuration support and procedures are not changed from previous releases of software if you are using a PXM1 card in your MGX 8000 Series switch chassis.

- [Private Network-to-Network Interface Priority Routing](#)
- [Additional SPVC Connection Management Capabilities](#)

Call Agent-Controlled VoATM AAL1 and AAL2 SVC

The following operating modes are supported with software Release 3.2 for VISM/VISM-PR:

- VoAAL1 switched virtual circuit (SVC), supported with the G.711 codec and clear channel.



Note VAD is not supported in combination with AAL1 SVCs.

- VoAAL2 SVC, supported with the G.711, G.726, G.729a, G.729ab, and G723 codecs and ITU profiles 1, 2, 3, 7, 8, and custom profiles 100, 101, 110, and 200.



Note CAS is not supported in combination with switched virtual circuits.

Use the **cnfvismmode** command to configure VISM operating modes.



Note This feature requires you to use a PXM1E or PXM45 in your MGX 8000 Series switch chassis.

AAL1 SVC-Based TDM Hairpinning

VoAAL1 switched virtual circuit (SVC) operating mode is supported with the G.711 codec and clear channel. The AAL1 SVC operating mode supports TDM hairpinning.



Note VAD is not supported in combination with AAL1 SVCs. CAS is not supported in combination with SVCs

Use the **cnfvismmode** command to configure VISM operating modes.



Note This feature requires you to use a PXM1E or PXM45 in your MGX 8000 Series switch chassis.

High Complexity Codec Support for VISM-PR—G.723.1

The VISM-PR card supports high complexity codec G.723.1 in template number 4. Template number 4 supports all the codecs in template number 3 and the following:

- G.723.1 high rate (6.3Kbps)—G.723.1-H
- G.723.1 high rate with VAD—G.723.1a-H
- G.723.1 low rate (5.3Kbps)—G.723.1-L
- G.723.1 low rate with VAD—G.723.1a-L

The G.723.1 codec, used in combination with the VISM-PR card, supports 144 channels. Refer to [Table 6-8](#) for a description of VISM-PR DS0 density when the cards are used in combination with supported codecs.

Several CLI commands have been modified to allow you to use the G.723.1 codec and template number 4.



Note

The G.723.1 codecs are not supported for VISM cards.

Announcement File System

This release allows VISM to play prerecorded local announcements in switched VoIP connections. Under the control of a call agent, announcements can be played toward any IP endpoint or toward any VISM endpoint.

Up to 125 different announcements may be cached on the VISM card for immediate playout. A persistent announcement storage area exists in the packet network. Announcements are downloaded on demand from the announcement storage area and remain on the VISM card until they have reached expiry or are replaced. If the 125 announcement maximum is reached, subsequent requests for announcements not on the VISM card result in the replacement of “cached” announcements.

Announcements can be played over established connections in any VISM supported codec, but they must exist on the announcement file server in the desired encoding.



Note

You must play announcements in the exact codec in which they have been recorded.

VISM announcements require the support of the MGCP 0.1/1.0 call agent.

Announcement Timeouts

VISM uses a provisionable timeout value of 5 seconds. If an announcement cannot start playing within the timeout value of receiving the request, the action is canceled and, if requested by the call agent, an “of” event is reported. If the call agent specifies a timeout value in the request, this value will be ignored.

Announcement Direction

Announcements can be played toward the packet network or toward the TDM network (not both). The direction is determined by the notation of the MGCP S: line. Announcement direction examples:

```
S: a/ann(all-lines-busy.au)
```

Explanation Indicates that all-lines-busy.au is to be played toward the TDM network.

S: a/ann@connid(all-lines-busy.au)

Explanation Indicates that all-lines-busy.au is to be played toward the packet network.

Broadcast Announcements

VISM supports announcement requests for a single endpoint or connection. The request may only specify a single announcement to be played on a single endpoint in a single direction. Broadcast announcements are not supported.

Multiple Announcement Requests for the Same Endpoint

If an announcement is being played on an endpoint (in one direction) and a subsequent announcement request is received for the same endpoint (in the same direction), the playing announcement will continue and the new announcement request is ignored.

If an announcement is being played on an endpoint (in one direction) and a subsequent announcement request is received for the same endpoint (in the other direction), the playing announcement is stopped and the new announcement is then played. Events are not generated for the stopped announcement.

Announcement File Server

Announcements are contained in an announcement file server, which resides on an IP network reachable from the VISM using Trivial File Transfer Protocol (TFTP).

Announcement File Server Name

You can configure the announcement file server node name on the VISM the same way that you configure a node name for the TFTP server.

Announcement File Server Directory Structure

You may use any directory or path on the file server as the main directory for storing announcement files. If you do not provision an announcement path prefix on VISM, the main announcement file directory is the default TFTP directory on the server. If a path prefix is provisioned, this prefix is used as the main announcement directory. If the prefix is not absolute (does not begin with a forward slash (/)), the prefix is relative to the default TFTP directory.

You can configure codec subdirectories under the main announcement directory on the announcement file server. A codec subdirectory exists for each codec used for announcement files. The subdirectories may be one or more of the following:

- g711u/
- g711a/
- g726_32k/
- g726_24k/
- g726_16k/
- g729_a/

- g7231_high_rate/
- g7231_a_high_rate/
- g7231_low_rate/
- g7231_a_low_rate/

When the call agent requests that an announcement is to be played toward the TDM network on an unconnected endpoint, you can specify the codec to be used.

Another level of directories might be configured to group announcement files by language. These directories would be specified by the call agent (or when provisioning the VISM) as part of the announcement file name. For example, the call agent might specify the announcement file name to be english/ann1.au. If the file was encoded in G.729a and the prefix was /tftpboot, the file would reside at /tftpboot/g729_a/english/ann1.au.

VISM Announcement Cache Management

VISM maintains an announcement cache in resident memory. When an announcement is requested to be played, it is retrieved from the announcement file server and placed in the on-board announcement cache. Subsequent requests for the same announcement do not require retrieval of the announcement file from the announcement file server.



Note

An announcement in one encoding is a different file than the same announcement in a different encoding.

Announcement Expiry

You can provision an announcement aging policy. Once an announcement has aged (reached expiry) in the on-board cache, it is refreshed—retrieved again from the announcement file server. This provides you with the means to balance the cost of file server access with the time before an announcement changed on the file server is propagated to the VISM. In addition, you can delete dynamic files from the announcement cache at any time.

Permanent Announcements

You can provision permanent announcements for VISM. A permanent announcement is retrieved from the announcement file server and installed permanently in the VISM announcement file cache. Permanent announcements are excluded from aging (and being automatically refreshed) and excluded from being replaced if the announcement cache becomes full. Permanent announcements can only be removed from the cache explicitly by using a CLI command. If VISM is reset or fails over to a standby card, permanent announcements are retrieved as soon as the card becomes active. The announcement encoding must be specified when provisioning or deleting permanent announcements.

Use the CLI commands in [Table 6-63](#) to configure the announcement file system feature.

Table 6-63 Announcement File System Feature CLI Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.

Table 6-63 Announcement File System Feature CLI Commands (continued)

Command	Description
cnfanndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.
dspannreqtimeout	Displays the expiration time for announcements to begin playing before being aborted.

Call Agent-Controlled T.38 Fax

The call agent-controlled T.38 fax feature is an additional operational mode for MGCP 1.0 to request T.38. This addition allows VISM to interoperate with H.323 and non-Cisco gateways, and is supported for VoIP calls. This feature is activated based on the fax tone and signaling carried with the call agent. The modified **cnft38fxlco** command allows you to configure the local connection option fax preamble response to off. All previous options are valid.

Additional Support for MGCP 1.0

This release supports the following MGCP 1.0 features:

- Restart in Progress command disconnect procedure wait delay timer value specification for the following:
 - Initial
 - Minimum
 - Maximum
- Call agent redundancy group protocol configuration for the following:
 - Quarantine handling method for persistent events
 - Default quarantine handling method for each protocol
 - Ability to keep events from previous lists, until explicitly requested to be removed
 - Ability to send provisional responses
 - Ability to send response acknowledgments
 - Ability to provide a disconnect method
 - Ability to cancel previously issued graceful restart commands

Use the CLI commands in [Table 6-64](#) to configure the MGCP 1.0 feature.

Table 6-64 MGCP 1.0 Feature CLI Commands

Command	Description
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfdisctimers	Specifies the wait delay times for the disconnected procedure, restart in progress command—initial, minimum, and maximum timer values.
cnfmgcgrpprotocol	Configures call agent group protocol data.
cnfxgcppeer	Configures the UDP port number used to send gateway-initiated messages to the call agent.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspdctimers	Displays the Restart in Progress command disconnect type method wait delay times.

RSVP-Based Admission Control

Resource Reservation Protocol (RSVP)-based admission control signaling with MGCP is supported, which allows for quality VoIP connections. For the connections, the RSVP-MGCP interaction results in the following:

- Establish or originate unidirectional resource reservation for sending voice packets for connections established and controlled by MGCP.
- Accept unidirectional resource reservations for receiving voice packets from MGCP controlled connections.
- Tear down originated or established unidirectional resource reservations.
- Tear down accepted resource reservations.

**Note**

VISM supports RSVP in the VoIP switching operating mode only, with a 5 calls per second limitation; RSVP is not supported in the VoIP trunking operating mode.

In previous releases of VISM software, the following connection data is returned in response to the call agent initiated DLCX, and gateway initiated DLCX or AUCX commands:

- Number of packets sent
- Number of octets sent
- Number of packets received
- Number of octets received

VISM Release 3.2 provides the following additional connection data:

- Number of packets lost
- Inter-arrival jitter—If a DSP is configured to operate in the adaptive jitter buffer mode, the jitter data provided indicates the delay that the jitter-algorithm is adapted to. If a DSP is configured to operate in the fixed jitter buffer mode, the jitter data provided indicates the value that was configured when the channel was opened.

**Note**

For adaptive mode you can use the value to indicate that the configured initial delay value is too low or too high, since the algorithm adapts according to the actual network jitter.

- Average transmission delay (latency)

Use the commands in [Table 6-65](#) to configure the RSVP-based admission control feature.

Table 6-65 RSVP-Based Admission Control Feature CLI Commands

Command	Description
cnfrsvvp	Configures RSVP for a specified connection.
cnfrsvvprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.

Clock Slip Counters

The clock counter information feature allows you to clear the current frame slip counters for a specified VISM or VISM-PR card line and display the current frame slip counters for a specified VISM or VISM-PR card line. Use the new **clrslipcnt** and **dspslipcnt** to use this feature.

RTP Connection Statistics

Real-Time Transport Protocol (RTP) connection statistics are collected for individual endpoints and sent to the call agent. Use the new **dsprtpconnstat** command to display collected RTP connection statistics.

Jitter delay data collection at call completion is on a per call basis. Jitter delay data and number of packets sent and received, and number of octets sent and received, are reported to the call agent through MGCP.

CAS Immediate Start and Ground Start Glare Handling

CAS Immediate Start—The CAS variants immediate start and immediate start, multifrequency are supported. Use the **addcasvar** command to configure CAS variants.

**Note**

The immediate start protocol does not define glare handling procedures—do not use the immediate start protocol on incoming or outgoing endpoints only. Endpoints are added as bidirectional by default. To make them incoming or outgoing, use the **cnfcasglarepolicy** command. If the endpoints are left as bidirectional, configured for immediate start operation, and glare occurs, the results may be unpredictable.

Ground Start Glare Handling—This release supports CAS glare condition handling according to RFC 3064. The VISM sends a NACK message in response to the call agent's request for ringing with error code 401 (off hook) in the event of a glare condition.

On receiving the request for ringing from call control, CAS transmits a seize signal to the PBX and starts the glare timer, returning a provisional response code to call control indicating that CAS is still processing the request. If the timer expires (normal case) or an incoming seizure is observed on the endpoint, CAS generates an asynchronous response code to call control that is comparable to an MGCP response code of 200 or 401, respectively.

Grooming for Local Traffic

VISM supports the call agent controlled grooming feature. Grooming allows VISM to avoid routing local traffic through the IP network. Voice packets from a local connection are switched locally in the ATM switch.

A call agent determines if a call needs to be setup as local. To set up a local call, the call agent selects an ATM connection over a VoIP connection. The VISM card, as a gateway, receives the connection request message from the call agent for an ATM connection. The VISM card allows VoIP calls and VoAAL1 SVC calls to coexist and allows provisioning of VoIP and ATM simultaneously.

To achieve this, VISM uses VoIP and Switched ATM AAL1 SVC as local switching mode. VISM receives an ATM AAL1 SVC call setup request from the call agent for local calls.

You must use the **cnfvismmode** command and select the VoIP and switched ATM AAL1 SVC operating mode to use the grooming feature. Using this mode does not change any other settings on your card. The type of connection for a call is determined by the connection request (CRCX) from the call agent or by the bearer type configuration.

MGX 8000 Series Implementation Features

The following features are supported with this release with implementation of your MGX 8000 Series switch:

- [Additional VBR Enhancements](#)
- [Expanded Clock Source Selection](#)
- [Private Network-to-Network Interface Priority Routing](#)
- [Additional SPVC Connection Management Capabilities](#)
- [192 T1/248 E1 DS0 Support with High Complexity Codecs on VISM-PR](#)

- [Channel Alarm Enhancement](#)
- [VISM TDM Line Statistics Collection](#)

Additional VBR Enhancements

Setting connections between a VISM-PR card and a RPM-PR card in your MGX 8000 Series switch chassis requires you to use the new VBR (NRT) 3 connection type. Use the modified **addcon** or **cnfcon** commands to configure this connection type. In addition, the following new connection service types can be configured with the modified commands in this release:

- VBR (RT) 2
- VBR (RT) 3
- VBR (NRT) 2

Expanded Clock Source Selection

This release supports an expanded clock source selection, which allows you to configure any VISM-PR card line as the clock source. You cannot delete a VISM-PR line that is configured as the clock source; you must configure a different line as the clock source and then you can delete the original clock source line. The previously released CLI commands allow you to use this feature.

**Note**

This feature requires you to use a PXM1E or PXM45 in your MGX 8000 Series switch chassis.

Private Network-to-Network Interface Priority Routing

This release supports the Private Network-to-Network Interface (PNNI) routing priority feature. This feature allows you to specify connections with a routing priority. The PNNI controller uses your configuration selections to route the higher priority connections before routing the lower priority connections. Use the **cnfpncon** command to configure a routing priority for a specified connection.

**Note**

This feature requires you to use a PXM1E or PXM45 in your MGX 8000 Series switch chassis.

Additional SPVC Connection Management Capabilities

Use the Processor Module 1E card (PXM1E) or the PXM 45 card in combination with the VISM-PR card in an MGX 8000 Series switch chassis to specify a connection up or down. Specifying a connection up allows you to direct traffic to the specified connection. Specifying a connection down allows you to prevent traffic from being directed to a specified connection. Use the **upcon** and **dncon** commands to use this feature.

**Note**

This feature requires you to use a PXM1E or PXM45 in your MGX 8000 Series switch chassis.

192 T1/248 E1 DS0 Support with High Complexity Codecs on VISM-PR

VISM-PR T1 lines support up to 192 DS0 channels and VISM-PR E1 lines support up to 248 DS0 channels, with clear channel and the following codec types:

- G.711
- G.726
- G.729a
- G.729ab

Table 6-66 describes the VISM/VISM-PR DS0 density when the cards are used in combination with clear channel and the supported codecs.

Table 6-66 VISM/VISM-PR DS0 Density with Codec Support

Codec	VISM		VISM-PR	
	T1	E1	T1	E1
G.711	192	248	192	248
G.723.1	—	—	144	144
G.726	145	145	192	248
G.729a/ab	145	145	192	248
Clear channel	192	248	192	248

Channel Alarm Enhancement

The channel alarm enhancement feature uses the modified **dsponcnt** command, which allows you to view the channel status bit map data.

VISM TDM Line Statistics Collection

This release allows you to configure VISM to collect Time Division Multiplex (TDM) line statistics. Use the **dsपालment** command to collect and display TDM line statistics. Use the **cnfालment** command to configure the thresholds for TDM line statistics.



CLI Commands

Command line interface (CLI) commands allow you to configure, manage, and troubleshoot VISM/VISM-PR cards.

The VISM/VISM-PR CLI commands are described in the remainder of this chapter and are arranged in alphabetical order.

For information on how to access and use the CLI commands, see [Chapter 6, “Configuring VISM/VISM-PR Features.”](#)

The following example shows the available modes.

```
cnfvismmode "mode_number"
  mode -- Value: 1 = voipSwitching/voipTrunking,
                2 = aal2Trunking,
                3 = aal1Switching,
                7 = switchedAal2Svc,
                8 = switchedAal2Pvc,
                9 = voipAndAal1Svc,
                10 = voipTrunking/aal2Trunking.
```

The available commands on the VISM/VISM-PR card depend on the operating mode that you have configured. [Table 7-1](#) shows the available operating modes.

Table 7-1 Operating Modes

Mode Number	Mode Name
1	VoIP switching/VoIP trunking
2	AAL2 trunking
3	AAL1 switching
7	Switched AAL2 SVC
8	Switched AAL2 PVC
9	VoIP and AAL1 SVC
10	VoIP trunking/AAL2 trunking

The following sections list the commands in alphabetical order for each operating mode:

- [VoIP Switching/VoIP Trunking, page 7-2](#)
- [AAL2 Trunking, page 7-13](#)
- [AAL1 Switching, page 7-18](#)

- [Switched AAL2 SVC, page 7-27](#)
- [Switched AAL2 PVC, page 7-35](#)
- [VoIP and AAL1 SVC, page 7-44](#)
- [VoIP Trunking/AAL2 Trunking, page 7-55](#)

VoIP Switching/VoIP Trunking

Table 7-2 provides an alphabetical list of the commands that support the VoIP switching/VoIP trunking mode. Each command listed is linked to its corresponding section in the document.

Table 7-2 VoIP Switching/VoIP Trunking Commands

Command	Description
?	Help
addannpermanent	Add announcement server file
addcasvar	Add CAS variant
addcon	Add connection
addconloop	Add local connection loopback
adddn	Add domain name
adddnip	Add IP address to domain
adddualtonedet	Add dual tone frequency
addendpt	Add endpoint
addendptloop	Add endpoint loopback
addendpts	Add endpoints
addlapd	Add LAPD
addlapdtrunk	Add LAPD trunk to a line
addln	Add line
addlnloop	Add line loop
addmgc	Add MGC
addmgcgrpentry	Add MGC to a call agent redundancy group
addmgcgrpprotocol	Assign a protocol to an MGC
addport	Add port
addrscprt	Add resource partition
addrtpcon	Add RTP VoIP trunking connection
addrudptrunk	Add RUDP trunk
addses	Add PRI backhaul session
addsesgrp	Add PRI backhaul session to a group
addsesset	Add PRI backhaul session set
addtoneplan	Add tone plan
addxcgppersistevt	Add persistent xGCP events

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
cc	Change card
chkflash	Check flash memory
clralm	Clear alarms on a line
clralmct	Clear alarm counters on a line
clralmctns	Clear all alarm counters on the card
clralms	Clear all alarms on the card
clrcafailentrs	Reset all CAC failures to 0
clrrtpcnt	Clear RTP counter for an RTP connection
clrsarct	Clear SAR counters on a channel
clrsarctns	Clear all SAR counters on the card
clrsarmsgcnt	Clear control message counters on the card
clrscrn	Clear control terminal screen
clrslipcnt	Clear clock slip counters for a line
clrtaskinfo	Reset the task values
cnfadapgain	Configure DSP adaptive gain
cnfalm	Configure alarm parameters for a line
cnfalment	Configure collection of TDM line statistics
cnfannagetime	Configure nonpermanent announcement time
cnfanndn	Designate announcement file server domain name
cnfanndnpathprefix	Designate announcement file TFTP path
cnfannprefcodec	Configure announcement codec
cnfannreqtimeout	Configure announcement expiration time
cnfcac	Configure CAC on the card
cnfcacparams	Configure CAC parameters
cnfcalea	Configure card for CALEA
cnfcascode	Configure CAS code parameters
cnfcasdelaydialtime	Configure CAS delay dial time
cnfcasdialdelay	Configure CAS wait time
cnfcasendpt	Associate endpoint with CAS name
cnfcasflashtime	Configure CAS flash time
cnfcasglareattrib	Configure CAS glare policy for an endpoint
cnfcasglaretime	Configure CAS glare time for an endpoint
cnfcasguardtime	Configure CAS guard time for an endpoint
cnfcasoffhooktime	Configure CAS off-hook time for an endpoint
cnfcasonhooktime	Configure CAS on-hook time for an endpoint
cnfcaspackage	Configure MGCP packages to notify CAS events

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
cnfcasparamsource	Configure CAS timer source parameters for an endpoint
cnfcasstartdialtime	Configure CAS start dial time for an endpoint
cnfcasvar	Configure previously added CAS variant
cnfcaswinktime	Configure CAS wink time parameters for an endpoint
cnfcasxgcp	Configure CAS retransmission parameters
cnfco1timer	Configure bearer continuity test 1 timer
cnfco2timer	Configure bearer continuity test 2 timer
cnfco4timer	Configure bearer continuity test 4 timer
cnfcodecjrtdelay	Configure jitter delay for a codec
cnfcodecneg	Configure codec list priority order
cnfcodecparams	Configure codec parameters
cnfcodectmpl	Assign codec template to card
cnfcompvad	Configure VAD
cnfcon	Configure connection parameters
cnfconcacparams	Configure CAC parameters on a PVC
cnfconprotect	Configure protection on a PVC
cnfconvbdpol	Configure VBD policies on a channel
cnfdeftos	Configure type of service parameters
cnfdisctimers	Configure wait delay times for disconnected procedure
cnfdn	Configure resolution type for domain
cnfdnssrvr	Designate domain name to domain server
cnfds0execdiag	Configure testing on an endpoint
cnfds0gain	Configure adjustable gain on a DS0
cnfds0localcas	Configure local CAS on a DS0
cnfds0loop	Configure loopback type for DS0
cnfds0musicthreshold	Configure music on-hold threshold for DS0
cnfds0sidpacket	Configure SID packet on a DS0
cnfdspheartbeattimer	Configure heartbeat message time interval
cnfdynamicpayload	Configure dynamic payload
cnfecanenable	Configure echo cancellation on a line
cnfecanrec	Configure residual echo control on an echo cancellation line
cnfecantail	Configure tail length on an echo cancellation line
cnfendptcadence	Configure cadence times on an endpoint
cnfendptdnsend	Configure datagram size for an endpoint
cnferl	Configure return echo loss value
cnfexecdiag	Configure all channel level testing

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
<code>cnfgain</code>	Configure adjustable gain on the card
<code>cnfgwis</code>	Configure card to be in-service
<code>cnfgwoos</code>	Configure card to be out-of-service
<code>cnfjtrinitdelay</code>	Configure initial jitter buffer delay size
<code>cnfjtrmode</code>	Configure jitter buffer delay mode
<code>cnflapdretrans</code>	Configure maximum retransmission
<code>cnflapdtimer</code>	Configure two LAPD timers
<code>cnflapdtrunkpvc</code>	Assign a PVC to carry LAPD messages
<code>cnflapdtype</code>	Configure LAPD stacks
<code>cnflapdwinize</code>	Configure maximum number of unacknowledged I-frames
<code>cnflinesabyte</code>	Configure SA bytes on a line
<code>cnfln</code>	Configure line parameters
<code>cnflndigitorder</code>	Configure digit order on a line
<code>cnflnexceddiag</code>	Configure channel level testing on a line
<code>cnflngain</code>	Configure adjustable gain for all DS0s on a line
<code>cnflnis</code>	Configure line to be in-service
<code>cnflnmusicthreshold</code>	Configure music on threshold for all DS0s on a line
<code>cnflnoos</code>	Configure line to be out-of-service
<code>cnflnringback</code>	Configure ring back tone on a line
<code>cnflnsidpacket</code>	Configure SID packet on a line
<code>cnflnsig</code>	Configure signaling on a line
<code>cnflntoneplan</code>	Assign tone plan to a line
<code>cnflntonetimeout</code>	Configure tone timeout periods for a line
<code>cnflntrunkcond</code>	Configure trunk conditioning
<code>cnflongdurationtimer</code>	Configure long duration timer
<code>cnfmgcgrpentry</code>	Configure priority of call agent within a group
<code>cnfmgcgrpparam</code>	Configure MGCP group parameters
<code>cnfmgcgrpprotocol</code>	Configure call agent group protocol
<code>cnfmidcalltimers</code>	Configure mid call DTMF timers
<code>cnfmusicthreshold</code>	Configure music on-hold threshold
<code>cnfnwcot</code>	Configure card for network continuity test
<code>cnfoamloopcnt</code>	Configure OAM loop count
<code>cnfoamparams</code>	Configure OAM parameters
<code>cnfplayouttimestamp</code>	Enable playout timestamp
<code>cnfplayouttimestamp</code>	Configure route priority for a connection
<code>cnfrsvp</code>	Configure RSVP for a connection

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
cnfrsvprefreshmiss	Configure RSVP refresh message wait time
cnfrtcprepint	Configure RTCP interval
cnfrtpcon	Configure RTP connection
cnfrtprxtimer	Configure RTP messages
cnfrudptrunkrmtip	Configure remote IP address of an RUDP trunk
cnfseqtonedet	Change the default settings of a sequential tone
cnfsesack	Configure timeout period before sending an acknowledgement
cnfsesmaxreset	Configure session maximum number of resets
cnfsesmaxseg	Configure session maximum segment size
cnfsesmaxwindow	Configure session maximum number of segments
cnfsesnullsegmtout	Configure session null segment idle time
cnfsesoutofseq	Configure session out-of-sequence packets
cnfsesport	Configure session port
cnfsesretrans	Configure session retransmission times
cnfsesstatetout	Configure session transfer state timeout
cnfsessyncatmps	Configure session sync attempts with call agent
cnfsidpacket	Configure SID packet on all lines
cnfsrcppeer	Configure SRCP port
cnfsrcppeergpparam	Configure SRCP parameters for a redundancy group
cnfsrcpretry	Configure SRCP retry count
cnft38fxlco	Configure fax handling on a line
cnft38nsetimeout	Configure timeout value for switch to fax transfer mode
cnft38params	Configure fax parameters for a line
cnftftpdn	Configure TFTP domain name
cnftranscotmode	Configures the continuity test for the TDM side
cnfvbdcodec	Configure VBD codec on the card
cnfvbdmarconi	Enable VBD upspeed detection
cnfvbdpol	Configure VBD policies on the card
cnfvismdn	Configure card domain name
cnfvismip	Configure card IP address
cnfvismmode	Configure operating mode
cnfvoiptimerparam	Configure VAD holdover time
cnfvoiptransparams	Configure VoIP transportation parameters
cnfxgcpbt	Configure bearer type
cnfxgcpinteropsdpost	Configure SDP OST interoperability
cnfxgcpmwd	Configure maximum wait delay to send RSIP message

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
<code>cnfxgcppeer</code>	Configure UDP port for gateway messages
<code>cnfxgcpretry</code>	Configure call agent communication retries
<code>delannalldynamic</code>	Delete all announcement files
<code>delanndynamic</code>	Delete announcement file
<code>delannpermanent</code>	Delete permanent announcement file
<code>delcasvar</code>	Delete CAS variant
<code>delcon</code>	Delete connection
<code>delconloop</code>	Delete local loop-back state on a connection
<code>deldn</code>	Delete domain name
<code>deldnip</code>	Delete domain IP address
<code>deldualtonedet</code>	Remove a dual frequency tone
<code>delendpt</code>	Delete endpoint
<code>delendptloop</code>	Delete loopback state on an endpoint
<code>delendpts</code>	Delete range of endpoints
<code>dellapd</code>	Delete LAPD
<code>dellapdtrunk</code>	Delete LAPD trunk
<code>delln</code>	Delete line
<code>dellnloop</code>	Delete loopback state on a line
<code>dellntoneplan</code>	Delete tone plan from a line
<code>delmgc</code>	Delete MGC
<code>delmgcgrpentry</code>	Delete MGC from a redundancy group
<code>delmgcgrpprotocol</code>	Delete MGC protocol from a redundancy group
<code>delport</code>	Delete port
<code>delrscprtn</code>	Delete resource partition
<code>delrtppcon</code>	Delete RTP connection
<code>delrudptrunk</code>	Delete RUDP trunk
<code>delses</code>	Delete session
<code>delsesgrp</code>	Delete session group
<code>delsesset</code>	Delete session set
<code>deltoneplan</code>	Delete tone plan
<code>delxgcpcon</code>	Delete xGCP connection
<code>delxgcppersistevt</code>	Delete persistent xGCP event
<code>dncon</code>	Down connection
<code>dspalm</code>	Display alarms for a line
<code>dspalmcnf</code>	Display alarm statistic threshold data for a line
<code>dspalmcnt</code>	Display alarm counters on a line

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
<code>dspalms</code>	Display alarms for specific line type
<code>dspannagetime</code>	Display announcement age time
<code>dspanncache</code>	Display available announcement file names
<code>dspanncontrols</code>	Display announcement file variables
<code>dspanndn</code>	Display announcement file server domain name
<code>dspannpathprefix</code>	Display announcement prefix directory path
<code>dspannpermanents</code>	Display all permanent announcement files
<code>dspannprefcodec</code>	Display announcement preference codec
<code>dspannreqtimeout</code>	Display announcement timeout
<code>dspcacfailcntrs</code>	Display CAC failure counters
<code>dspcaclea</code>	Display CALEA configuration status
<code>dspcarddsp</code>	Display card configuration parameters
<code>dspcasendpts</code>	Display CAS endpoint configuration
<code>dspcasglareattrib</code>	Display glare policy attributes
<code>dspcaspackage</code>	Display CAS packages
<code>dspcasparamsource</code>	Display CAS timer source parameters
<code>dspcastimers</code>	Display CAS timers for an endpoint
<code>dspcasvar</code>	Display CAS variant data
<code>dspcasvarendpts</code>	Display all endpoints associated with CAS variant
<code>dspcasvars</code>	Display parameters of all CAS variants
<code>dspcasxgcps</code>	Display CAS/xGCP timer parameters
<code>dspcd</code>	Display card configuration
<code>dspco1timer</code>	Display continuity test 1 timer value
<code>dspco2timer</code>	Display continuity test 2 timer value
<code>dspco4timer</code>	Display continuity test 4 timer value
<code>dspcodecjtrdelays</code>	Display codec jitter delay modes
<code>dspcodecneg</code>	Display codec negotiation option
<code>dspcodecparams</code>	Display codec parameters
<code>dspcodectmpls</code>	Display all entries in the codec template table
<code>dspcon</code>	Display channel configuration
<code>dspconcac</code>	Display CAC configuration for a connection
<code>dspconcnt</code>	Display counter configuration for a connection
<code>dspconferences</code>	Display conferences
<code>dspcons</code>	Display channel configuration for all connections
<code>dspconvbdpol</code>	Display VBD policies for a channel
<code>dspdiags</code>	Display results of a diagnostic test

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
<code>dspdisctimers</code>	Display disconnect type method wait delay times
<code>dspdnallips</code>	Display all IP addresses for all domain names on the card
<code>dspdnips</code>	Display all IP addresses for a specific domain name
<code>dspdns</code>	Display configuration for all domain names
<code>dspdnssrvr</code>	Display domain name for a domain server
<code>dspds0execdiag</code>	Display testing is enabled on the channel
<code>dspds0gain</code>	Display adjustable gain values for a DS0
<code>dspds0localcasstatus</code>	Display local CAS status for a DS0
<code>dspds0loop</code>	Display loopback type for a DS0
<code>dspds0musicthreshold</code>	Display music on-threshold for a DS0
<code>dspds0sidpacket</code>	Display SID packet status for a DS0
<code>dspdualtonedet</code>	Display dual tone configurations
<code>dspdynamicpayload</code>	Display dynamic payload for the card
<code>dspendpt</code>	Display configuration for an endpoint
<code>dspendptdnsend</code>	Display audit endpoint response naming format
<code>dspendpts</code>	Display configuration for all endpoints
<code>dspexecdiag</code>	Display testing status for all channel levels
<code>dspfaxmodemtrace</code>	Display fax/modem trace
<code>dspgain</code>	Display adjustable gain for the card
<code>dspgwstate</code>	Display gateway service state
<code>dspheartbeattimer</code>	Display heartbeat status of the card
<code>dsplapd</code>	Display configuration of LAPD channel
<code>dsplapds</code>	Display configuration for all LAPD channels
<code>dsplapdstat</code>	Display LAPD channel statistics
<code>dsplapdtrunkpvc</code>	Display LAPD trunk PVC carrier
<code>dsplapdtrunks</code>	Display configuration of all LAPD trunks
<code>dsplinecasbits</code>	Display CAS bits values for a line
<code>dsplinesabyte</code>	Display SA buffers on a line
<code>dspln</code>	Display configuration of a line
<code>dsplndigitorder</code>	Display line digit order
<code>dsplndsp</code>	Display DSP data for a line
<code>dsplnds0s</code>	Display configuration for all DS0s on a line
<code>dsplnendptstatus</code>	Display endpoint status for a line
<code>dsplnexecdiag</code>	Display channel level testing status
<code>dsplngain</code>	Display adjustable gain for all DS0s on a line
<code>dsplnmusicthreshold</code>	Display music on-hold threshold for all DS0s on a line

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
<code>dsplnringback</code>	Display ring back tone method for a line
<code>dsplns</code>	Display configuration for all lines on the card
<code>dsplnsidpacket</code>	Display the SID packet status for the DS0s on the line
<code>dsplnstate</code>	Display service state of the line
<code>dsplntoneplan</code>	Display tone plan configuration for a line
<code>dsplntonetimeout</code>	Display configured timeout periods for all line tones
<code>dsplongdurationtimer</code>	Display long duration timer
<code>dsploops</code>	Display all lines and DS0s in the loopback condition
<code>dspmaxmgcs</code>	Display maximum number of MGC on the card
<code>dspmgc</code>	Display configuration for an MGC
<code>dspmgcgrpparams</code>	Display all MGC redundancy group parameters
<code>dspmgcgrpprotocols</code>	Display all MGC redundancy group protocols
<code>dspmgcgrps</code>	Display all configured MGC redundancy groups
<code>dspmgcs</code>	Display configuration for all MGCs
<code>dspmgprotocols</code>	Display the MG protocols
<code>dspmidecalltimers</code>	Display mid call DTMF timers
<code>dspmonecanendpt</code>	Display echo cancellation activity for an endpoint
<code>dspmusicthreshold</code>	Display music on-hold threshold for the card
<code>dsplnwcot</code>	Display network connectivity connection configuration
<code>dspoamloopcnt</code>	Display OAM loop count
<code>dspoamparams</code>	Display OAM parameters
<code>dspport</code>	Display virtual port configuration
<code>dsprsrprt</code>	Display resource partition configuration
<code>dsprsvpif</code>	Display RSVP configuration for a connection
<code>dsprsvpreq</code>	Display configuration for an RSVP request
<code>dsprsvpreqs</code>	Display configuration for all RSVP requests on the card
<code>dsprsvpresv</code>	Display bandwidth reservation for an RSVP request
<code>dsprsvpresvs</code>	Display bandwidth reservations for all RSVP requests
<code>dsprsvpsender</code>	Display path state for an RSVP request
<code>dsprsvpsenders</code>	Display path states for all RSVP requests
<code>dsprtpcnt</code>	Display RTP bearer counters
<code>dsprtpcn</code>	Display configuration for an RTP connection
<code>dsprtpcnstat</code>	Display RTP connection statistics for an endpoint
<code>dsprtpcs</code>	Display configuration for all RTP connections
<code>dsprudp</code>	Display configuration for an RUDP session
<code>dsprudp</code>	Display configuration for all RUDP sessions

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
<code>dpsarcnt</code>	Display SAR counter values for a channel
<code>dpsarcnts</code>	Display SAR counter values for all channels
<code>dpsarmsgcnt</code>	Display SAR control message counter values for the card
<code>dspseqtonedet</code>	Display configuration data of a sequential tone
<code>dspses</code>	Display configuration for a session
<code>dspsesgrp</code>	Display configuration for a session group
<code>dspsesgrps</code>	Display configuration for all session groups
<code>dspsess</code>	Display configuration for all sessions
<code>dspsesset</code>	Display configuration for a session set
<code>dspsesstat</code>	Display configuration of session statistics
<code>dpsidpacket</code>	Display SID packet configuration for each line
<code>dpslipcnt</code>	Display clock slip counters for a line
<code>dpsrcpnt</code>	Display SRCP counters for a call agent
<code>dpsrcpnts</code>	Display SRCP counters for all call agents
<code>dpsrcppeer</code>	Display configuration for an SRCP peer
<code>dpsrcppeergrpparams</code>	Display SRCP peer group parameters
<code>dpsrcppeers</code>	Display configurations for all SRCP peers
<code>dpsrcpport</code>	Display SRCP port
<code>dpsrcpretry</code>	Display SRCP retransmission parameters
<code>dspt38fxlco</code>	Display fax handling instructions for a line
<code>dspt38fxlcos</code>	Display fax handling instructions for all lines
<code>dspt38nsetimeout</code>	Display NSE timeout for a line
<code>dspt38nsetimeouts</code>	Display NSE timeout for all lines
<code>dspt38params</code>	Display fax transfer parameters for a line
<code>dsptaskinfo</code>	Display operating tasks
<code>dsptonebuiltinplans</code>	Display built-in tone plans
<code>dsptoneplan</code>	Display configuration of a tone plan
<code>dsptoneplans</code>	Display configurations of all tone plans
<code>dsptoneprovplans</code>	Display all provisional tone plans
<code>dsptoneregionplans</code>	Display tone plans by region
<code>dspranscotmode</code>	Display reverse transponder continuity test mode
<code>dspvbdcodec</code>	Display upspeed codec for VBD
<code>dspvbdmarconi</code>	Display VBD upspeed mode
<code>dspvbdpol</code>	Display VBD policies
<code>dspvismdn</code>	Display domain name for card
<code>dspvismip</code>	Display IP address for card

Table 7-2 VoIP Switching/VoIP Trunking Commands (continued)

Command	Description
<code>dspvismparam</code>	Display card configuration parameters
<code>dspvoipparams</code>	Display VoIP mode parameters
<code>dspxgcpbt</code>	Display bear type configuration
<code>dspxgcpcalls</code>	Display xGCP call information
<code>dspxgcpconf</code>	Display xGCP configuration
<code>dspxgcpent</code>	Display xGCP message statistics for a call agent
<code>dspxgcpents</code>	Display xGCP message statistics for all call agents
<code>dspxgcpcon</code>	Display configuration for call agent connection
<code>dspxgcpcons</code>	Display configuration for all call agent connections
<code>dspxgcpdefpkg</code>	Display xGCP default package
<code>dspxgcpdetailnt</code>	Display detail of message exchange statistics for a call agent
<code>dspxgcpdetailnts</code>	Display detail message exchange statistics for all call agents
<code>dspxgcpendpt</code>	Display configuration for an xGCP endpoint
<code>dspxgcpendptcons</code>	Display configurations for all xGCP endpoint connections
<code>dspxgcpendpts</code>	Display configurations for all xGCP endpoints
<code>dspxgcperrcnt</code>	Display xGCP error counts
<code>dspxgcpinterop</code>	Display status of SDP OST
<code>dspxgcpIncons</code>	Display xGCP line connection information
<code>dspxgcppeers</code>	Display ports for xGCP peers
<code>dspxgcppersistevts</code>	Display all xGCP persistent events
<code>dspxgcpport</code>	Display local xGCP port
<code>dspxgcpretry</code>	Display xGCP retransmission parameters
<code>Help</code>	Help
<code>memShow</code>	Display system memory partition blocks and statistics
<code>pinglndsp</code>	Display DSP configuration data for all endpoints on a line
<code>rrtcon</code>	Trigger re-routing of a connection between two different switches
<code>setfaxmodemtrace</code>	Set fax/modem trace
<code>tstcon</code>	Test a specified connection
<code>tstdelay</code>	Test delay on a specified connection
<code>upcon</code>	Up a connection
<code>version</code>	Display version data

AAL2 Trunking

The following alphabetical list of commands supports the AAL2 trunking mode.

Table 7-2 provides an alphabetical list of the commands that support the VoIP switching/VoIP trunking mode. Each command listed is linked to its corresponding section in the document.

Table 7-3 AAL2 Trunking Commands

Command	Description
?	Help
addcasvar	Add CAS variant
addccs	Add CCS channel
addcid	Add CID
addcon	Add connection
addconloop	Add local connection loopback
addendpt	Add endpoint
addendptloop	Add endpoint loopback
addln	Add line
addlnloop	Add line loop
addport	Add port
addrscrptn	Add resource partition
cc	Change card
chkflash	Check flash memory
clralm	Clear alarms on a line
clralment	Clear alarm counters on a line
clralments	Clear all alarm counters on the card
clralms	Clear all alarms on the card
clrcafailentrs	Reset all CAC failures to 0
clrccsent	Clear CCS counter values on a line
clrccsents	Clear CCC counter values on all lines
clrmngcident	Clear CID counters
clrsarent	Clear SAR counters on a channel
clrsarents	Clear all SAR counters on the card
clrsarmsgcnt	Clear control message counters on the card
clrscrn	Clear control terminal screen
clrslipcnt	Clear clock slip counters for a line
clrtaskinfo	Reset the task values
cnfaal2subcellmuxing	Configure subcell multiplexing
cnfaal2timerparams	Configure AAL2 timer parameters
cnfadapgain	Configure DSP adaptive gain

Table 7-3 AAL2 Trunking Commands (continued)

Command	Description
cnfaissuppression	Configure AIS suppression
cnfalm	Configure alarm parameters for a line
cnfalment	Configure TDM line statistics
cnfcac	Configure CAC on the card
cnfcacparams	Configure CAC parameters
cnfcalea	Configure card for CALEA
cnfcascode	Configure CAS code parameters
cnfcasdelaydialtime	Configure CAS delay dial time
cnfcasdialdelay	Configure CAS wait time
cnfcasendpt	Associate endpoint with CAS name
cnfcasflashtime	Configure CAS flash time
cnfcasglareattrib	Configure CAS glare policy for an endpoint
cnfcasglaretime	Configure CAS glare time for an endpoint
cnfcasguardtime	Configure CAS guard time for an endpoint
cnfcasoffhooktime	Configure CAS off-hook time for an endpoint
cnfcasonhooktime	Configure CAS on-hook time for an endpoint
cnfcaspackage	Configure MGCP packages to notify CAS events
cnfcasparamsource	Configure CAS timer source parameters for an endpoint
cnfcasstartdialtime	Configure CAS start dial time for an endpoint
cnfcasvar	Configure previously added CAS variant
cnfcaswinktime	Configure CAS wink time parameters for an endpoint
cnfcasxgcp	Configure CAS retransmission parameters
cnfcodecjtrdelay	Configure jitter delay for a codec
cnfcodectmpl	Assign codec template to card
cnfcompvad	Configure VAD
cnfcon	Configure connection parameters
cnfconcac	Enable CAC on a connection.
cnfconcacparams	Configure CAC parameters on a PVC
cnfconprotect	Configure protection on a PVC
cnfconvbdpol	Configure VBD policies on a channel
cnfds0execdiag	Configure testing on an endpoint
cnfds0gain	Configure adjustable gain on a DS0
cnfds0localcas	Configure local CAS on a DS0
cnfds0loop	Configure loopback type for DS0
cnfds0musicthreshold	Configure music on-hold threshold for DS0
cnfdspheartbeattimer	Configure heartbeat message time interval

Table 7-3 AAL2 Trunking Commands (continued)

Command	Description
<code>cnfecanenable</code>	Configure echo cancellation on a line
<code>cnfecanrec</code>	Configure residual echo control on an echo cancellation line
<code>cnfecantail</code>	Configure tail length on an echo cancellation line
<code>cnfendptcadence</code>	Configure cadence times on an endpoint
<code>cnferl</code>	Configure return echo loss value
<code>cnfexecdiag</code>	Configure all channel level testing
<code>cnfgain</code>	Configure adjustable gain on the card
<code>cnfjtrinitdelay</code>	Configure initial jitter buffer delay size
<code>cnfjtrmode</code>	Configure jitter buffer delay mode
<code>cnflinesabyte</code>	Configure SA bytes on a line
<code>cnfln</code>	Configure line parameters
<code>cnflnexecdial</code>	Configure channel level testing on a line
<code>cnflngain</code>	Configure adjustable gain for all DS0s on a line
<code>cnflnmusicthreshold</code>	Configure music on threshold for all DS0s on a line
<code>cnflnsig</code>	Configure signaling on a line
<code>cnflntrunkcond</code>	Configure trunk conditioning
<code>cnfmusicthreshold</code>	Configure music on-hold threshold
<code>cnfoamloopcnt</code>	Configure OAM loop count
<code>cnfplayouttimestamp</code>	Configure route priority for a connection
<code>cnfprofelemvbd</code>	Configure profile element for a profile
<code>cnfprofelemvoice</code>	Configure profile voice element
<code>cnfprofparams</code>	Configure profile preference
<code>cnfvbdpol</code>	Configure VBD policies on the card
<code>cnfvismmode</code>	Configure operating mode
<code>cnfxgcpbt</code>	Configure bearer type
<code>delcasvar</code>	Delete CAS variant
<code>delccs</code>	Delete CCS
<code>delcid</code>	Delete CID
<code>delcon</code>	Delete connection
<code>delconloop</code>	Delete local loop-back state on a connection
<code>delendpt</code>	Delete endpoint
<code>delendptloop</code>	Delete loopback state on an endpoint
<code>delendpts</code>	Delete range of endpoints
<code>dellapdtrunk</code>	Delete LAPD trunk
<code>delln</code>	Delete line
<code>dellnloop</code>	Delete loopback state on a line

Table 7-3 AAL2 Trunking Commands (continued)

Command	Description
delport	Delete port
delrscprt	Delete resource partition
delrtptcon	Delete RTP connection
delrudptrunk	Delete RUDP trunk
dncon	Down connection
dspaal2params	Display AAL2 parameters
dspaal2profile	Display data about AAL2 profile
dspaissuppression	Display AIS suppression status
dspalm	Display alarms for a line
dspalmcnf	Display alarm statistic threshold data for a line
dspalment	Display alarm counters on a line
dspalms	Display alarms for specific line type
dspcacfailcntrs	Display CAC failure counters
dspcalea	Display CALEA configuration status
dspcarddsp	Display card configuration parameters
dspcasendpts	Display CAS endpoint configuration
dspcasglareattrib	Display glare policy attributes
dspcaspackage	Display CAS packages
dspcasparamsource	Display CAS timer source parameters
dspcastimers	Display CAS timers for an endpoint
dspcasvar	Display CAS variant data
dspcasvarendpts	Display all endpoints associated with CAS variant
dspcasvars	Display parameters of all CAS variants
dspcasxgcps	Display CAS/xGCP timer parameters
dspccs	Display CCS configuration
dspccschans	Display CCS channels
dspccsent	Display CCS counters
dspcd	Display card configuration
dspcid	Display configuration of CID
dspcids	Display CIDs of LCN
dspcodecjtrdelays	Display codec jitter delay modes
dspcodectmpls	Display all entries in the codec template table
dspcon	Display channel configuration
dspconcac	Display CAC configuration for a connection
dspconcnt	Display counter configuration for a connection
dspcons	Display channel configuration for all connections

Table 7-3 AAL2 Trunking Commands (continued)

Command	Description
<code>dspconvbdpol</code>	Display VBD policies for a channel
<code>dspdiags</code>	Display results of a diagnostic test
<code>dspds0execdiag</code>	Display testing is enabled on the channel
<code>dspds0gain</code>	Display adjustable gain values for a DS0
<code>dspds0localcasstatus</code>	Display local CAS status for a DS0
<code>dspds0loop</code>	Display loopback type for a DS0
<code>dspds0musicthreshold</code>	Display music on-threshold for a DS0
<code>dspendpt</code>	Display configuration for an endpoint
<code>dspendpts</code>	Display endpoints
<code>dspexecdiag</code>	Display testing status for all channel levels
<code>dspfaxmodemtrace</code>	Display fax/modem trace
<code>dspgain</code>	Display adjustable gain for the card
<code>dspheartbeattimer</code>	Display heartbeat status of the card
<code>dsplinecasbits</code>	Display CAS bits values for a line
<code>dsplinesabyte</code>	Display SA buffers on a line
<code>dspln</code>	Display configuration of a line
<code>dsplncids</code>	Display CIDs for a line
<code>dsplndsp</code>	Display DSP data for a line
<code>dsplndsx0s</code>	Display configuration for all DS0s on a line
<code>dsplnendptstatus</code>	Display endpoint status for a line
<code>dsplnexecdiag</code>	Display channel level testing status
<code>dsplngain</code>	Display adjustable gain for all DS0s on a line
<code>dsplnmusicthreshold</code>	Display music on-hold threshold for all DS0s on a line
<code>dsplns</code>	Display configuration for all lines on the card
<code>dsploops</code>	Display all lines and DS0s in the loopback condition
<code>dspmngcidcnt</code>	Display CID count for an endpoint
<code>dspmonecanendpt</code>	Display echo cancellation activity for an endpoint
<code>dspmusicthreshold</code>	Display music on-hold threshold for the card
<code>dspoamloopcnt</code>	Display OAM loop count
<code>dspport</code>	Display virtual port configuration
<code>dspprofparams</code>	Display profile elements for all profiles
<code>dsprscrptn</code>	Display resource partition configuration
<code>dspсарcnt</code>	Display SAR counter values for a channel
<code>dspсарcnts</code>	Display SAR counter values for all channels
<code>dspсарmsgcnt</code>	Display SAR control message counter values for the card
<code>dspslipcnt</code>	Display clock slip counters for a line

Table 7-3 AAL2 Trunking Commands (continued)

Command	Description
<code>dsptaskinfo</code>	Display operating tasks
<code>dspvbdpol</code>	Display VBD policies
<code>dspvismparam</code>	Display card configuration parameters
<code>dspxgcpbt</code>	Display bear type configuration
<code>Help</code>	Help
<code>memShow</code>	Display system memory partition blocks and statistics
<code>pingIndsp</code>	Display DSP configuration data for all endpoints on a line
<code>rrtcon</code>	Trigger re-routing of a connection between two different switches
<code>setfaxmodemtrace</code>	Set fax/modem trace
<code>tstcon</code>	Test a specified connection
<code>tstdelay</code>	Test delay on a specified connection
<code>upcon</code>	Up a connection
<code>version</code>	Display version data

AAL1 Switching

The following alphabetical list of commands supports the AAL1 switching mode.

Table 7-4 AAL1 Switching Commands

Command	Description
<code>?</code>	Help
<code>addcon</code>	Add connection
<code>addconloop</code>	Add local connection loopback
<code>adddn</code>	Add domain name
<code>adddnip</code>	Add IP address to domain
<code>adddualtonedet</code>	Add dual tone frequency
<code>addendpt</code>	Add endpoint
<code>addendptloop</code>	Add endpoint loopback
<code>addendpts</code>	Add endpoints
<code>addlapd</code>	Add LAPD
<code>addln</code>	Add line
<code>addlnloop</code>	Add line loop
<code>addmgc</code>	Add MGC
<code>addmgcgrpentry</code>	Add MGC to a call agent redundancy group
<code>addmgcgrpprotocol</code>	Assign a protocol to an MGC

Table 7-4 AAL1 Switching Commands (continued)

Command	Description
addport	Add port
addrscprtn	Add resource partition
addses	Add PRI backhaul session
addsesgrp	Add PRI backhaul session to a group
addsesset	Add PRI backhaul session set
addtoneplan	Add tone plan
addxgcppersistevt	Add persistent xGCP events
cc	Change card
chkflash	Check flash memory
clralm	Clear alarms on a line
clralment	Clear alarm counters on a line
clralmnts	Clear all alarm counters on the card
clralms	Clear all alarms on the card
clrcacfailcntrs	Reset all CAC failures to 0
clrsarent	Clear SAR counters on a channel
clrsarents	Clear all SAR counters on the card
clrsarmsgcnt	Clear control message counters on the card
clrscrn	Clear control terminal screen
clrslipcnt	Clear clock slip counters for a line
clrtaskinfo	Reset the task values
cnfadapgain	Configure DSP adaptive gain
cnfaggsvcbw	Aggregate SVC bandwidth
cnfalm	Configure alarm parameters for a line
cnfalment	Configure collection of TDM line statistics
cnfcac	Configure CAC on the card
cnfcacparams	Configure CAC parameters
cnfcalea	Configure card for CALEA
cnfco1timer	Configure bearer continuity test 1 timer
cnfco2timer	Configure bearer continuity test 2 timer
cnfco4timer	Configure bearer continuity test 4 timer
cnfcodecjtrdelay	Configure jitter delay for a codec
cnfcodecneg	Configure codec list priority order
cnfcodecpams	Configure codec parameters
cnfcodectmpl	Assign codec template to card
cnfcompsize	Configure compression size
cnfcompvad	Configure VAD

Table 7-4 AAL1 Switching Commands (continued)

Command	Description
<code>cnfcon</code>	Configure connection parameters
<code>cnfconcacparams</code>	Configure CAC parameters on a PVC
<code>cnfconprotect</code>	Configure protection on a PVC
<code>cnfdisctimers</code>	Configure wait delay times for disconnected procedure
<code>cnfdn</code>	Configure resolution type for domain
<code>cnfdnssrvr</code>	Designate domain name to domain server
<code>cnfds0execdiag</code>	Configure testing on an endpoint
<code>cnfds0gain</code>	Configure adjustable gain on a DS0
<code>cnfds0localcas</code>	Configure local CAS on a DS0
<code>cnfds0loop</code>	Configure loopback type for DS0
<code>cnfds0musicthreshold</code>	Configure music on-hold threshold for DS0
<code>cnfdspheartbeattimer</code>	Configure heartbeat message time interval
<code>cnfdynamicpayload</code>	Configure dynamic payload
<code>cnfecanenable</code>	Configure echo cancellation on a line
<code>cnfecanrec</code>	Configure residual echo control on an echo cancellation line
<code>cnfecantail</code>	Configure tail length on an echo cancellation line
<code>cnfendptdntsend</code>	Configure datagram size for an endpoint
<code>cnferl</code>	Configure return echo loss value
<code>cnfexecdiag</code>	Configure all channel level testing
<code>cnfgain</code>	Configure adjustable gain on the card
<code>cnfgwis</code>	Configure card to be in-service
<code>cnfgwoos</code>	Configure card to be out-of-service
<code>cnfjtrinitdelay</code>	Configure initial jitter buffer delay size
<code>cnfjtrmode</code>	Configure jitter buffer delay mode
<code>cnflapdretrans</code>	Configure maximum retransmission
<code>cnflapdtimer</code>	Configure two LAPD timers
<code>cnflapdtype</code>	Configure LAPD stacks
<code>cnflapdwinsize</code>	Configure maximum number of unacknowledged I-frames
<code>cnflinesabyte</code>	Configure SA bytes on a line
<code>cnfln</code>	Configure line parameters
<code>cnflndigitorder</code>	Configure digit order on a line
<code>cnflnexecdiag</code>	Configure channel level testing on a line
<code>cnflngain</code>	Configure adjustable gain for all DS0s on a line
<code>cnflnis</code>	Configure line to be in-service
<code>cnflnmusicthreshold</code>	Configure music on threshold for all DS0s on a line
<code>cnflnoos</code>	Configure line to be out-of-service

Table 7-4 AAL1 Switching Commands (continued)

Command	Description
<code>cnflnringback</code>	Configure ring back tone on a line
<code>cnflnsig</code>	Configure signaling on a line
<code>cnflntoneplan</code>	Assign tone plan to a line
<code>cnflntonetimeout</code>	Configure tone timeout periods for a line
<code>cnflongdurationtimer</code>	Configure long duration timer
<code>cnfmgcgrpentry</code>	Configure priority of call agent within a group
<code>cnfmgcgrpparam</code>	Configure MGCP group parameters
<code>cnfmgcgrpprotocol</code>	Configure call agent group protocol
<code>cnfmidcalltimers</code>	Configure mid call DTMF timers
<code>cnfmusicthreshold</code>	Configure music on-hold threshold
<code>cnfnwcot</code>	Configure card for network continuity test
<code>cnfoamloopcnt</code>	Configure OAM loop count
<code>cnfoamparams</code>	Configure OAM parameters
<code>cnfplayouttimestamp</code>	Configure route priority for a connection
<code>cnfseqtonedet</code>	Change the default settings of a sequential tone
<code>cnfsesack</code>	Configure timeout period before sending an acknowledgement
<code>cnfsesmaxreset</code>	Configure session maximum number of resets
<code>cnfsesmaxseg</code>	Configure session maximum segment size
<code>cnfsesmaxwindow</code>	Configure session maximum number of segments
<code>cnfsesnullsegmtout</code>	Configure session null segment idle time
<code>cnfsesoutofseq</code>	Configure session out-of-sequence packets
<code>cnfsesport</code>	Configure session port
<code>cnfsesretrans</code>	Configure session retransmission times
<code>cnfsesstatetmout</code>	Configure session transfer state timeout
<code>cnfsessyncatmps</code>	Configure session sync attempts with call agent
<code>cnfsrcppeer</code>	Configure SRCP port
<code>cnfsrcppeergrpparam</code>	Configure SRCP parameters for a redundancy group
<code>cnfsrcpretry</code>	Configure SRCP retry count
<code>cnfsvcqosparam</code>	Configure Quality of Service parameters
<code>cnftftpdn</code>	Configure TFTP domain name
<code>cnfranscotmode</code>	Configures the continuity test for the TDM side
<code>cnfrfaggclip</code>	Configure traffic clipping
<code>cnfvismdn</code>	Configure card domain name
<code>cnfvismip</code>	Configure card IP address
<code>cnfvismmode</code>	Configure operating mode
<code>cnfxgcpbt</code>	Configure bearer type

Table 7-4 AAL1 Switching Commands (continued)

Command	Description
cnfxgcpinteropsdpost	Configure SDP OST interoperability
cnfxgcpmwd	Configure maximum wait delay to send RSIP message
cnfxgcppeer	Configure UDP port for gateway messages
cnfxgcpretry	Configure call agent communication retries
delcon	Delete connection
delconloop	Delete local loop-back state on a connection
deldn	Delete domain name
deldnip	Delete domain IP address
deldualtonedet	Remove a dual frequency tone
delendpt	Delete endpoint
delendptloop	Delete loopback state on an endpoint
delendpts	Delete range of endpoints
dellapd	Delete LAPD
dellapdtrunk	Delete LAPD trunk
delln	Delete line
dellnloop	Delete loopback state on a line
dellntoneplan	Delete tone plan from a line
delmgc	Delete MGC
delmgcgrpentry	Delete MGC from a redundancy group
delmgcgrpprotocol	Delete MGC protocol from a redundancy group
delport	Delete port
delrscprtn	Delete resource partition
delrtppcon	Delete RTP connection
delrudptrunk	Delete RUDP trunk
delses	Delete session
delsesgrp	Delete session group
delsesst	Delete session set
deltoneplan	Delete tone plan
delxgcpcon	Delete xGCP connection
delxgcppersistevt	Delete persistent xGCP event
dncon	Down connection
dspaggsvcbw	Display configured bandwidth
dspalm	Display alarms for a line
dspalmcnf	Display alarm statistic threshold data for a line
dspalment	Display alarm counters on a line
dspalms	Display alarms for specific line type

Table 7-4 AAL1 Switching Commands (continued)

Command	Description
<code>dspavgsvctimes</code>	Display table of SVC SAPI message processing statistic averages
<code>dspcacfailcntrs</code>	Display CAC failure counters
<code>dspcalea</code>	Display CALEA configuration status
<code>dspcarddsp</code>	Display card configuration parameters
<code>dspcctimes</code>	Display call control MGCP message processing statistics
<code>dspcd</code>	Display card configuration
<code>dspco1timer</code>	Display continuity test 1 timer value
<code>dspco2timer</code>	Display continuity test 2 timer value
<code>dspco4timer</code>	Display continuity test 4 timer value
<code>dspcodecjrtdelays</code>	Display codec jitter delay modes
<code>dspcodecneg</code>	Display codec negotiation option
<code>dspcodecparams</code>	Display codec parameters
<code>dspcodectmpls</code>	Display all entries in the codec template table
<code>dspcon</code>	Display channel configuration
<code>dspconcac</code>	Display CAC configuration for a connection
<code>dspconcnt</code>	Display counter configuration for a connection
<code>dspcons</code>	Display channel configuration for all connections
<code>dspdiags</code>	Display results of a diagnostic test
<code>dspdisctimers</code>	Display disconnect type method wait delay times
<code>dspdnallips</code>	Display all IP addresses for all domain names on the card
<code>dspdnips</code>	Display all IP addresses for a specific domain name
<code>dspdns</code>	Display configuration for all domain names
<code>dspdnssrvr</code>	Display domain name for a domain server
<code>dspds0execdiag</code>	Display testing is enabled on the channel
<code>dspds0gain</code>	Display adjustable gain values for a DS0
<code>dspds0localcasstatus</code>	Display local CAS status for a DS0
<code>dspds0loop</code>	Display loopback type for a DS0
<code>dspds0musicthreshold</code>	Display music on-threshold for a DS0
<code>dspdualtonedet</code>	Display dynamic payload for the card
<code>dspdynamicpayload</code>	Display dynamic payload for the card
<code>dspendpt</code>	Display configuration for an endpoint
<code>dspendptdnsend</code>	Display audit endpoint response naming format
<code>dspendpts</code>	Display endpoints
<code>dspexecdiag</code>	Display testing status for all channel levels
<code>dspfaxmodemtrace</code>	Display fax/modem trace

Table 7-4 AAL1 Switching Commands (continued)

Command	Description
<code>dspgain</code>	Display adjustable gain for the card
<code>dspgwstate</code>	Display gateway service state
<code>dsphereheartbeattimer</code>	Display heartbeat status of the card
<code>dsplapd</code>	Display configuration of LAPD channel
<code>dsplapds</code>	Display configuration for all LAPD channels
<code>dsplapdstat</code>	Display LAPD channel statistics
<code>dsplinesabyte</code>	Display SA buffers on a line
<code>dspln</code>	Display configuration of a line
<code>dsplndigitorder</code>	Display line digit order
<code>dsplndsp</code>	Display DSP data for a line
<code>dsplndsxs0s</code>	Display configuration for all DS0s on a line
<code>dsplnendptstatus</code>	Display endpoint status for a line
<code>dsplnexecdiag</code>	Display channel level testing status
<code>dsplngain</code>	Display adjustable gain for all DS0s on a line
<code>dsplnmusicthreshold</code>	Display music on-hold threshold for all DS0s on a line
<code>dsplnringback</code>	Display ring back tone method for a line
<code>dsplns</code>	Display configuration for all lines on the card
<code>dsplnstate</code>	Display service state of the line
<code>dsplntoneplan</code>	Display tone plan configuration for a line
<code>dsplntonetimeout</code>	Display configured timeout periods for all line tones
<code>dsplongdurationtimer</code>	Display long duration timer
<code>dsploops</code>	Display all lines and DS0s in the loopback condition
<code>dsplmaxmgcs</code>	Display maximum number of MGC on the card
<code>dsplmgc</code>	Display configuration for an MGC
<code>dsplmgcgrpparams</code>	Display all MGC redundancy group parameters
<code>dsplmgcgrpprotocols</code>	Display all MGC redundancy group protocols
<code>dsplmgcgrps</code>	Display all configured MGC redundancy groups
<code>dsplmgcs</code>	Display configuration for all MGCs
<code>dsplmgprotocols</code>	Display the MG protocols
<code>dsplmidcalltimers</code>	Display mid call DTMF timers
<code>dsplmonecanendpt</code>	Display echo cancellation activity for an endpoint
<code>dsplmusicthreshold</code>	Display music on-hold threshold for the card
<code>dsplnwcot</code>	Display network connectivity connection configuration
<code>dsplpoamloopcnt</code>	Display OAM loop count
<code>dsplpoamparams</code>	Display OAM parameters
<code>dsplport</code>	Display virtual port configuration

Table 7-4 AAL1 Switching Commands (continued)

Command	Description
<code>dsprscrprt</code>	Display resource partition configuration
<code>dsparent</code>	Display SAR counter values for a channel
<code>dsparents</code>	Display SAR counter values for all channels
<code>dsparmsgcnt</code>	Display SAR control message counter values for the card
<code>dspseqtonedet</code>	Display configuration data of a sequential tone
<code>dspres</code>	Display configuration for a session
<code>dspresgrp</code>	Display configuration for a session group
<code>dspresgrps</code>	Display configuration for all session groups
<code>dspres</code>	Display configuration for all sessions
<code>dspresset</code>	Display configuration for a session set
<code>dspresstat</code>	Display configuration of session statistics
<code>dspslipent</code>	Display clock slip counters for a line
<code>dspsrcpnt</code>	Display SRCP counters for a call agent
<code>dspsrcpnts</code>	Display SRCP counters for all call agents
<code>dspsrcppeer</code>	Display configuration for an SRCP peer
<code>dspsrcppeergrpparams</code>	Display SRCP peer group parameters
<code>dspsrcppeers</code>	Display configurations for all SRCP peers
<code>dspsrcpport</code>	Display SRCP port
<code>dspsrcpretry</code>	Display SRCP retransmission parameters
<code>dspsvccallstruct</code>	Display all SVC call table information
<code>dspsvccalltable</code>	Display SVC call table
<code>dspsvccalltimers</code>	Display timers pending for each call
<code>dspsvccause</code>	Print the text description for the cause
<code>dspsvccnts</code>	Display SVC SAPI message processing counts
<code>dspsvccons</code>	Display active SVCs
<code>dspsvcgw</code>	Display SVC gateway parameters
<code>dspsvccqosparam</code>	Display Quality of Service parameters
<code>dsptaskinfo</code>	Display operating tasks
<code>dsptonebuiltinplans</code>	Display built-in tone plans
<code>dsptoneplan</code>	Display configuration of a tone plan
<code>dsptoneplans</code>	Display configurations of all tone plans
<code>dsptoneprovplans</code>	Display all provisional tone plans
<code>dsptoneregionplans</code>	Display tone plans by region
<code>dspranscotmode</code>	Display reverse transponder continuity test mode
<code>dspvismdn</code>	Display domain name for card
<code>dspvismip</code>	Display IP address for card

Table 7-4 AAL1 Switching Commands (continued)

Command	Description
<code>dspvismparam</code>	Display card configuration parameters
<code>dspxgcpbt</code>	Display bear type configuration
<code>dspxgcpcalls</code>	Display xGCP call information
<code>dspxgcpconf</code>	Display xGCP configuration
<code>dspxgcpent</code>	Display xGCP message statistics for a call agent
<code>dspxgcpents</code>	Display xGCP message statistics for all call agents
<code>dspxgcpcon</code>	Display configuration for call agent connection
<code>dspxgcpcons</code>	Display configuration for all call agent connections
<code>dspxgcpdefpkg</code>	Display xGCP default package
<code>dspxgcpdetailnt</code>	Display detail of message exchange statistics for a call agent
<code>dspxgcpdetailents</code>	Display detail message exchange statistics for all call agents
<code>dspxgcpendpt</code>	Display configuration for an xGCP endpoint
<code>dspxgcpendptcons</code>	Display configurations for all xGCP endpoint connections
<code>dspxgcpendpts</code>	Display configurations for all xGCP endpoints
<code>dspxgcperrnt</code>	Display xGCP error counts
<code>dspxgcpinterop</code>	Display status of SDP OST
<code>dspxgcpIncons</code>	Display xGCP line connection information
<code>dspxgcppeers</code>	Display ports for xGCP peers
<code>dspxgcppersistevts</code>	Display all xGCP persistent events
<code>dspxgcpport</code>	Display local xGCP port
<code>dspxgcpretry</code>	Display xGCP retransmission parameters
<code>Help</code>	Help
<code>memShow</code>	Display system memory partition blocks and statistics
<code>pinglndsp</code>	Display DSP configuration data for all endpoints on a line
<code>rrtcon</code>	Trigger re-routing of a connection between two different switches
<code>setfaxmodemtrace</code>	Set fax/modem trace
<code>svccntsreset</code>	Set SVC counters to 0
<code>tstcon</code>	Test a specified connection
<code>tstdelay</code>	Test delay on a specified connection
<code>upcon</code>	Up a connection
<code>version</code>	Display version data

Switched AAL2 SVC

The following alphabetical list of commands supports the switched AAL2 SVC mode.

Table 7-5 Switched AAL2 SVC Commands

Command	Description
?	Help
addcon	Add connection
addconloop	Add local connection loopback
adddn	Add domain name
adddnip	Add IP address to domain
adddualtonedet	Add dual tone frequency
addendpt	Add endpoint
addendptloop	Add endpoint loopback
addendpts	Add endpoints
addlapd	Add LAPD
addln	Add line
addlnloop	Add line loop
addmgc	Add MGC
addmgcgrpentry	Add MGC to a call agent redundancy group
addmgcgrpprotocol	Assign a protocol to an MGC
addport	Add port
addrscprtn	Add resource partition
addses	Add PRI backhaul session
addsesgrp	Add PRI backhaul session to a group
addsesset	Add PRI backhaul session set
addtoneplan	Add tone plan
addxgcppersistevt	Add persistent xGCP events
cc	Change card
chkflash	Check flash memory
clralm	Clear alarms on a line
clralmct	Clear alarm counters on a line
clralmcts	Clear all alarm counters on the card
clralms	Clear all alarms on the card
clrcacfailcntrs	Reset all CAC failures to 0
clrsarct	Clear SAR counters on a channel
clrsarcnts	Clear all SAR counters on the card
clrsarmsgcnt	Clear control message counters on the card
clrscrn	Clear control terminal screen

Table 7-5 Switched AAL2 SVC Commands (continued)

Command	Description
<code>clrslipcnt</code>	Clear clock slip counters for a line
<code>clrtaskinfo</code>	Reset the task values
<code>cnfaal2subcellmuxing</code>	Configure AAL2 subcell multiplexing
<code>cnfaal2timerparams</code>	Configure AAL2 timer parameters
<code>cnfaal2transparams</code>	Configure AAL2 transportation parameters
<code>cnfadapgain</code>	Configure DSP adaptive gain
<code>cnfaggsvcbw</code>	Aggregate SVC bandwidth
<code>cnfaissuppression</code>	Configure AIS suppression
<code>cnfalm</code>	Configure alarm parameters for a line
<code>cnfalmnt</code>	Configure collection of TDM line statistics
<code>cnfcac</code>	Configure CAC on the card
<code>cnfcacparams</code>	Configure CAC parameters
<code>cnfcalea</code>	Configure card for CALEA
<code>cnfco1timer</code>	Configure bearer continuity test 1 timer
<code>cnfco2timer</code>	Configure bearer continuity test 2 timer
<code>cnfco4timer</code>	Configure bearer continuity test 4 timer
<code>cnfcodecjrtdelay</code>	Configure jitter delay for a codec
<code>cnfcodectmpl</code>	Assign codec template to card
<code>cnfcompvad</code>	Configure VAD
<code>cnfcon</code>	Configure connection parameters
<code>cnfconcacparams</code>	Configure CAC parameters on a PVC
<code>cnfconprotect</code>	Configure protection on a PVC
<code>cnfconvbdpol</code>	Configure VBD policies
<code>cnfdisctimers</code>	Configure wait delay times for disconnected procedure
<code>cnfdn</code>	Configure resolution type for domain
<code>cnfdnssrvr</code>	Designate domain name to domain server
<code>cnfds0execdiag</code>	Configure testing on an endpoint
<code>cnfds0gain</code>	Configure adjustable gain on a DS0
<code>cnfds0localcas</code>	Configure local CAS on a DS0
<code>cnfds0loop</code>	Configure loopback type for DS0
<code>cnfds0musicthreshold</code>	Configure music on-hold threshold for DS0
<code>cnfdspheartbeattimer</code>	Configure heartbeat message time interval
<code>cnfecanenable</code>	Configure echo cancellation on a line
<code>cnfecanrec</code>	Configure residual echo control on an echo cancellation line
<code>cnfecantail</code>	Configure tail length on an echo cancellation line
<code>cnfendptdntsend</code>	Configure datagram size for an endpoint

Table 7-5 Switched AAL2 SVC Commands (continued)

Command	Description
<code>cnferl</code>	Configure return echo loss value
<code>cnfexecdiag</code>	Configure all channel level testing
<code>cnfgain</code>	Configure adjustable gain on the card
<code>cnfgwis</code>	Configure card to be in-service
<code>cnfgwoos</code>	Configure card to be out-of-service
<code>cnfjtrinitdelay</code>	Configure initial jitter buffer delay size
<code>cnfjtrmode</code>	Configure jitter buffer delay mode
<code>cnflapdretrans</code>	Configure maximum retransmission
<code>cnflapdtimer</code>	Configure two LAPD timers
<code>cnflapdtype</code>	Configure LAPD stacks
<code>cnflapdwinsize</code>	Configure maximum number of unacknowledged I-frames
<code>cnflinesabyte</code>	Configure SA bytes on a line
<code>cnfln</code>	Configure line parameters
<code>cnflndigitorder</code>	Configure digit order on a line
<code>cnflnexecdial</code>	Configure channel level testing on a line
<code>cnflngain</code>	Configure adjustable gain for all DS0s on a line
<code>cnflnis</code>	Configure line to be in-service
<code>cnflnmusicthreshold</code>	Configure music on threshold for all DS0s on a line
<code>cnflnoos</code>	Configure line to be out-of-service
<code>cnflnringback</code>	Configure ring back tone on a line
<code>cnflnsig</code>	Configure signaling on a line
<code>cnflntoneplan</code>	Assign tone plan to a line
<code>cnflntonetimeout</code>	Configure tone timeout periods for a line
<code>cnflongdurationtimer</code>	Configure long duration timer
<code>cnfmgcgrpentry</code>	Configure priority of call agent within a group
<code>cnfmgcgrpparam</code>	Configure MGCP group parameters
<code>cnfmgcgrpprotocol</code>	Configure call agent group protocol
<code>cnfmidcalltimers</code>	Configure mid call DTMF timers
<code>cnfmusicthreshold</code>	Configure music on-hold threshold
<code>cnfnwcot</code>	Configure card for network continuity test
<code>cnfoamloopcnt</code>	Configure OAM loop count
<code>cnfoamparams</code>	Configure OAM parameters
<code>cnfplayouttimestamp</code>	Configure route priority for a connection
<code>cnfprofelemvbd</code>	Configure VBD profile
<code>cnfprofelemvoice</code>	Configure profile voice element
<code>cnfprofneg</code>	Configure profile list priority order

Table 7-5 Switched AAL2 SVC Commands (continued)

Command	Description
cnfprofparams	Configure profile parameters
cnfseqtonedet	Change the default settings of a sequential tone
cnfsesack	Configure timeout period before sending an acknowledgement
cnfsesmaxreset	Configure session maximum number of resets
cnfsesmaxseg	Configure session maximum segment size
cnfsesmaxwindow	Configure session maximum number of segments
cnfsesnullsegmtout	Configure session null segment idle time
cnfsesoutofseq	Configure session out-of-sequence packets
cnfsesport	Configure session port
cnfsesretrans	Configure session retransmission times
cnfsesstatetmout	Configure session transfer state timeout
cnfsessyncatmps	Configure session sync attempts with call agent
cnfsrcppeer	Configure SRCP port
cnfsrcppeergrpparam	Configure SRCP parameters for a redundancy group
cnfsrcpretry	Configure SRCP retry count
cnfsvcaal2cid	Configure AAL2 CID value
cnfsvcqosparam	Configure Quality of Service parameters
cnfsvctrfscalingfactor	Configure traffic scaling
cnftftpdn	Configure TFTP domain name
cnftranscotmode	Configures the continuity test for the TDM side
cnftrfaggclip	Configure traffic clipping
cnfvbdpol	Configure VBD policies
cnfvismdn	Configure card domain name
cnfvismip	Configure card IP address
cnfvismmode	Configure operating mode
cnfxgcpbt	Configure bearer type
cnfxgcpinteropsdpost	Configure SDP OST interoperability
cnfxgcpmwd	Configure maximum wait delay to send RSIP message
cnfxgcppeer	Configure UDP port for gateway messages
cnfxgcpretry	Configure call agent communication retries
delcon	Delete connection
delconloop	Delete local loop-back state on a connection
deldn	Delete domain name
deldnip	Delete domain IP address
deldualtonedet	Remove a dual frequency tone
delendpt	Delete endpoint

Table 7-5 Switched AAL2 SVC Commands (continued)

Command	Description
delendptloop	Delete loopback state on an endpoint
delendpts	Delete range of endpoints
dellapd	Delete LAPD
dellapdtrunk	Delete LAPD trunk
delln	Delete line
dellnloop	Delete loopback state on a line
dellntoneplan	Delete tone plan from a line
delmgc	Delete MGC
delmgcgrpentry	Delete MGC from a redundancy group
delmgcgrpprotocol	Delete MGC protocol from a redundancy group
delport	Delete port
delrscprtn	Delete resource partition
delrtpon	Delete RTP connection
delrudptrunk	Delete RUDP trunk
delses	Delete session
delsesgrp	Delete session group
delseset	Delete session set
deltoneplan	Delete tone plan
delxgcpcon	Delete xGCP connection
delxgcppersistevt	Delete persistent xGCP event
dncon	Down connection
dspaal2params	Display AAL2 parameters
dspaal2profile	Display AAL2 profile
dspaggsvcbw	Display configured bandwidth
dspalm	Display alarms for a line
dspalmcnf	Display alarm statistic threshold data for a line
dspalment	Display alarm counters on a line
dspalms	Display alarms for specific line type
dspavgsvctimes	Display table of SVC SAPI message processing statistic averages
dspcacfailcntrs	Display CAC failure counters
dspcalea	Display CALEA configuration status
dspcarddsp	Display card configuration parameters
dspcctimes	Display call control MGCP message processing statistics
dspcd	Display card configuration
dspcoltimer	Display continuity test 1 timer value

Table 7-5 Switched AAL2 SVC Commands (continued)

Command	Description
<code>dscco2timer</code>	Display continuity test 2 timer value
<code>dscco4timer</code>	Display continuity test 4 timer value
<code>dspscodecjrtdelays</code>	Display codec jitter delay modes
<code>dspscodectmpls</code>	Display all entries in the codec template table
<code>dspscon</code>	Display channel configuration
<code>dspsconcac</code>	Display CAC configuration for a connection
<code>dspsconcnt</code>	Display counter configuration for a connection
<code>dspscons</code>	Display channel configuration for all connections
<code>dspsconvbdpol</code>	Display VBD policies for a connection
<code>dspsdiags</code>	Display results of a diagnostic test
<code>dspsdisctimers</code>	Display disconnect type method wait delay times
<code>dspsdnallips</code>	Display all IP addresses for all domain names on the card
<code>dspsdnips</code>	Display all IP addresses for a specific domain name
<code>dspsdns</code>	Display configuration for all domain names
<code>dspsdnssrvr</code>	Display domain name for a domain server
<code>dspsds0execdiag</code>	Display testing is enabled on the channel
<code>dspsds0gain</code>	Display adjustable gain values for a DS0
<code>dspsds0localcasstatus</code>	Display local CAS status for a DS0
<code>dspsds0loop</code>	Display loopback type for a DS0
<code>dspsds0musicthreshold</code>	Display music on-threshold for a DS0
<code>dspsdualtonedet</code>	Display dynamic payload for the card
<code>dspsendpt</code>	Display configuration for an endpoint
<code>dspsendptdsend</code>	Display audit endpoint response naming format
<code>dspsendpts</code>	Display endpoints
<code>dspsexecdiag</code>	Display testing status for all channel levels
<code>dspsfaxmodemtrace</code>	Display fax/modem trace
<code>dspsgain</code>	Display adjustable gain for the card
<code>dspsgwstate</code>	Display gateway service state
<code>dspsheartbeattimer</code>	Display heartbeat status of the card
<code>dspslapd</code>	Display configuration of LAPD channel
<code>dspslapds</code>	Display configuration for all LAPD channels
<code>dspslapdstat</code>	Display LAPD channel statistics
<code>dspslinesabyte</code>	Display SA buffers on a line
<code>dspsln</code>	Display configuration of a line
<code>dspslndigitorder</code>	Display line digit order
<code>dspslndsp</code>	Display DSP data for a line

Table 7-5 Switched AAL2 SVC Commands (continued)

Command	Description
<code>dspInIdx0s</code>	Display configuration for all DS0s on a line
<code>dspInEndPtStatus</code>	Display endpoint status for a line
<code>dspInNexcdiag</code>	Display channel level testing status
<code>dspInGain</code>	Display adjustable gain for all DS0s on a line
<code>dspInMusicThreshold</code>	Display music on-hold threshold for all DS0s on a line
<code>dspInRingback</code>	Display ring back tone method for a line
<code>dspInS</code>	Display configuration for all lines on the card
<code>dspInState</code>	Display service state of the line
<code>dspInTonePlan</code>	Display tone plan configuration for a line
<code>dspInToneTimeout</code>	Display configured timeout periods for all line tones
<code>dspInLongDurationTimer</code>	Display long duration timer
<code>dspInLoops</code>	Display all lines and DS0s in the loopback condition
<code>dspInMaxMGCs</code>	Display maximum number of MGC on the card
<code>dspInMGC</code>	Display configuration for an MGC
<code>dspInMGCGrpParams</code>	Display all MGC redundancy group parameters
<code>dspInMGCGrpProtocols</code>	Display all MGC redundancy group protocols
<code>dspInMGCGrps</code>	Display all configured MGC redundancy groups
<code>dspInMGCs</code>	Display configuration for all MGCs
<code>dspInMGProtocols</code>	Display the MG protocols
<code>dspInMidCallTimers</code>	Display mid call DTMF timers
<code>dspInMonecanEndPt</code>	Display echo cancellation activity for an endpoint
<code>dspInMusicThreshold</code>	Display music on-hold threshold for the card
<code>dspInNwCoT</code>	Display network connectivity connection configuration
<code>dspInOamLoopCnt</code>	Display OAM loop count
<code>dspInOamParams</code>	Display OAM parameters
<code>dspInPort</code>	Display virtual port configuration
<code>dspInProfParams</code>	Display profile parameters
<code>dspInRsrcPrtn</code>	Display resource partition configuration
<code>dspInSARcnt</code>	Display SAR counter values for a channel
<code>dspInSARcnts</code>	Display SAR counter values for all channels
<code>dspInSARmsgcnt</code>	Display SAR control message counter values for the card
<code>dspInSeqTonedet</code>	Display configuration data for a sequential tone
<code>dspInSes</code>	Display configuration for a session
<code>dspInSesGrp</code>	Display configuration for a session group
<code>dspInSesGrps</code>	Display configuration for all session groups
<code>dspInSess</code>	Display configuration for all sessions

Table 7-5 Switched AAL2 SVC Commands (continued)

Command	Description
<code>dspsesset</code>	Display configuration for a session set
<code>dspsesstat</code>	Display configuration of session statistics
<code>dspslipcnt</code>	Display clock slip counters for a line
<code>dpsrcpcent</code>	Display SRCP counters for a call agent
<code>dpsrcpcnts</code>	Display SRCP counters for all call agents
<code>dpsrcppeer</code>	Display configuration for an SRCP peer
<code>dpsrcppeergprpparams</code>	Display SRCP peer group parameters
<code>dpsrcppeers</code>	Display configurations for all SRCP peers
<code>dpsrcpport</code>	Display SRCP port
<code>dpsrcpretry</code>	Display SRCP retransmission parameters
<code>dpsvcaal2cid</code>	Display the current configured AAL2 SVC CID number
<code>dpsvccallstruct</code>	Display all SVC call table information
<code>dpsvccalltable</code>	Display SVC call table
<code>dpsvccalltimers</code>	Display timers pending for each call
<code>dpsvccause</code>	Print the text description for the cause
<code>dpsvccnts</code>	Display SVC SAPI message processing counts
<code>dpsvcccons</code>	Display active SVCs
<code>dpsvcgw</code>	Display SVC gateway parameters
<code>dpsvcqosparam</code>	Display Quality of Service parameters
<code>dpsvctrfscalingfactor</code>	Display SVC traffic scaling factors
<code>dsptaskinfo</code>	Display operating tasks
<code>dsptonebuiltinplans</code>	Display built-in tone plans
<code>dsptoneplan</code>	Display configuration of a tone plan
<code>dsptoneplans</code>	Display configurations of all tone plans
<code>dsptoneprovplans</code>	Display all provisional tone plans
<code>dsptoneregionplans</code>	Display tone plans by region
<code>dsprtranscotmode</code>	Display reverse transponder continuity test mode
<code>dspvbdpol</code>	Display VBD policies
<code>dspvismdn</code>	Display domain name for card
<code>dspvismip</code>	Display IP address for card
<code>dspvismparam</code>	Display card configuration parameters
<code>dspxgcpbt</code>	Display bear type configuration
<code>dspxgpcalls</code>	Display xGCP call information
<code>dspxgpcids</code>	Display xGCP CIDs
<code>dspxgpcpnf</code>	Display xGCP configuration
<code>dspxgpcpnt</code>	Display xGCP message statistics for a call agent

Table 7-5 Switched AAL2 SVC Commands (continued)

Command	Description
dspxgpcnts	Display xGCP message statistics for all call agents
dspxgpccon	Display configuration for call agent connection
dspxgpccons	Display configuration for all call agent connections
dspxgcpdefpkg	Display xGCP default package
dspxgcpdetailcnt	Display detail of message exchange statistics for a call agent
dspxgcpdetailcnts	Display detail message exchange statistics for all call agents
dspxgcpendpt	Display configuration for an xGCP endpoint
dspxgcpendptcons	Display configurations for all xGCP endpoint connections
dspxgcpendpts	Display configurations for all xGCP endpoints
dspxgcperrcnt	Display xGCP error counts
dspxgcpinterop	Display status of SDP OST
dspxgcpIncons	Display xGCP line connection information
dspxgcppeers	Display ports for xGCP peers
dspxgcppersistevts	Display all xGCP persistent events
dspxgcpport	Display local xGCP port
dspxgcpretry	Display xGCP retransmission parameters
Help	Help
memShow	Display system memory partition blocks and statistics
pingIndsp	Display DSP configuration data for all endpoints on a line
rrtcon	Trigger re-routing of a connection between two different switches
setfaxmodemtrace	Set fax/modem trace
svcntsreset	Set SVC counters to 0
tstcon	Test a specified connection
tstdelay	Test delay on a specified connection
upcon	Up a connection
version	Display version data

Switched AAL2 PVC

The following alphabetical list of commands supports the switched AAL2 PVC mode.

Table 7-6 Switched AAL2 PVC Commands

Command	Description
?	Help
addcasvar	Add CAS variant

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
addccs	Add CCS channel
addcid	Add CID
addcon	Add connection
addconloop	Add local connection loopback
adddn	Add domain name
adddnip	Add IP address to domain
adddualtonedet	Add dual tone frequency
addendpt	Add endpoint
addendptloop	Add endpoint loopback
addendpts	Add consecutive endpoints
addln	Add line
addlnloop	Add line loop
addmgc	Add a MGC
addmgcgrpentry	Add MGC to a redundancy group
addmgcgrpprotocol	Add protocol to redundancy group
addport	Add port
addrscprt	Add resource partition
addtoneplan	Add tone plan
addxgcppersistevt	Add persistent xGCP events
cc	Change card
chkflash	Check flash memory
clralm	Clear alarms on a line
clralmct	Clear alarm counters on a line
clralmcts	Clear all alarm counters on the card
clralms	Clear all alarms on the card
clrcacfailcnts	Reset all CAC failures to 0
clrcscent	Clear CCS counter values on a line
clrcsents	Clear CCC counter values on all lines
clrmngcidcnt	Clear CID counters
clrsarent	Clear SAR counters on a channel
clrsarents	Clear all SAR counters on the card
clrsarmsgcnt	Clear control message counters on the card
clrscrn	Clear control terminal screen
clrslipcnt	Clear clock slip counters for a line
clrtaskinfo	Reset the task values
cnfaal2subcellmuxing	Configure subcell multiplexing

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
cnfaal2timerparams	Configure AAL2 timer parameters
cnfaal2transparams	Configure AAL2 transportation parameters
cnfadapgain	Configure DSP adaptive gain
cnfaissuppression	Configure AIS suppression
cnfalm	Configure alarm parameters for a line
cnfalmnt	Configure collection of TDM statistics
cnfcac	Configure CAC on the card
cnfcacparams	Configure CAC parameters
cnfcalea	Configure card for CALEA
cnfcascode	Configure CAS code parameters
cnfcasdelaydialtime	Configure CAS delay dial time
cnfcasdialdelay	Configure CAS wait time
cnfcasendpt	Associate endpoint with CAS name
cnfcasflashtime	Configure CAS flash time
cnfcasglareattrib	Configure CAS glare policy for an endpoint
cnfcasglaretime	Configure CAS glare time for an endpoint
cnfcasguardtime	Configure CAS guard time for an endpoint
cnfcasoffhooktime	Configure CAS off-hook time for an endpoint
cnfcasonhooktime	Configure CAS on-hook time for an endpoint
cnfcaspackage	Configure MGCP packages to notify CAS events
cnfcasparamsource	Configure CAS timer source parameters for an endpoint
cnfcasstartdialtime	Configure CAS start dial time for an endpoint
cnfcasvar	Configure previously added CAS variant
cnfcaswinktime	Configure CAS wink time parameters for an endpoint
cnfcasxgcp	Configure CAS retransmission parameters
cnfco1timer	Configure bearer continuity test 1 timer
cnfco2timer	Configure bearer continuity test 2 timer
cnfco4timer	Configure bearer continuity test 4 timer
cnfcodecjrtdelay	Configure jitter delay for a codec
cnfcodectmpl	Assign codec template to card
cnfcompvad	Configure VAD
cnfcon	Configure connection parameters
cnfcac	Configure CAC
cnfconcacparams	Configure CAC parameters on a PVC
cnfconprotect	Configure protection on a PVC
cnfconvbdpol	Configure VBD policies on a channel

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
cnfconvcci	Configure VCCI
cnfdisctimers	Configure wait delay times for disconnected procedure
cnfdn	Configure resolution type for domain
cnfdnssrvr	Designate domain name to domain server
cnfds0execdiag	Configure testing on an endpoint
cnfds0gain	Configure adjustable gain on a DS0
cnfds0localcas	Configure local CAS on a DS0
cnfds0loop	Configure loopback type for DS0
cnfds0musicthreshold	Configure music on-hold threshold for DS0
cnfdspheartbeattimer	Configure heartbeat message time interval
cnfecanenable	Configure echo cancellation on a line
cnfecanrec	Configure residual echo control on an echo cancellation line
cnfecantail	Configure tail length on an echo cancellation line
cnfendptcadence	Configure cadence times on an endpoint
cnfendptdnsend	Configure cadence times
cnferl	Configure return echo loss value
cnfexecdiag	Configure all channel level testing
cnfgain	Configure adjustable gain on the card
cnfgwis	Configure card to be in-service
cnfgwoos	Configure card to be out-of-service
cnfjtrinitdelay	Configure initial jitter buffer delay size
cnfjtrmode	Configure jitter buffer delay mode
cnflinesabyte	Configure SA bytes on a line
cnfln	Configure line parameters
cnflndigitorder	Configure digit order on a line
cnflnexecdiag	Configure channel level testing on a line
cnflngain	Configure adjustable gain for all DS0s on a line
cnflnis	Configure line to be in-service
cnflnmusicthreshold	Configure music on threshold for all DS0s on a line
cnflnoos	Configure line to be out-of-service
cnflnringback	Configure ring back tone on a line
cnflnsig	Configure signaling on a line
cnflntoneplan	Assign tone plan to a line
cnflntonetimer	Configure tone timeout periods for a line
cnflntrunkcond	Configure trunk conditioning
cnflongdurationtimer	Configure long duration timer

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
cnfmgcgrpentry	Configure priority of call agent within a group
cnfmgcgrpparam	Configure MGCP group parameters
cnfmgcgrpprotocol	Configure call agent group protocol
cnfmidcalltimers	Configure mid call DTMF timers
cnfmusicthreshold	Configure music on-hold threshold
cnfnwcot	Configure card for network continuity test
cnfoamloopcnt	Configure OAM loop count
cnfoamparams	Configure OAM parameters
cnfplayouttimestamp	Configure route priority for a connection
cnfprofelemvbd	Configure profile element for a profile
cnfprofelemvoice	Configure profile voice element
cnfprofneg	Configure profile list priority order
cnfprofparams	Configure profile preference
cnfseqtonedet	Change the default settings of a sequential tone
cnfsrcppeer	Configure SRCP port
cnfsrcppeergrpparam	Configure SRCP parameters for a redundancy group
cnfsrcpretry	Configure SRCP retry count
cnftftpdn	Configure TFTP domain name
cnfranscotmode	Configures the continuity test for the TDM side
cnfvbdpol	Configure VBD policies on the card
cnfvismdn	Configure card domain name
cnfvismip	Configure card IP address
cnfvismmode	Configure operating mode
cnfxgcpbt	Configure bearer type
cnfxgcpinteropsdpost	Configure SDP OST interoperability
cnfxgcpmwd	Configure maximum wait delay to send RSIP message
cnfxgcppeer	Configure UDP port for gateway messages
cnfxgcpretry	Configure call agent communication retries
delcasvar	Delete CAS variant
delccs	Delete CCS
delcid	Delete CID
delcon	Delete connection
delconloop	Delete local loop-back state on a connection
deldn	Delete domain name
deldnip	Delete domain IP address
deldualtonedet	Remove a dual frequency tone

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
<code>delendpt</code>	Delete endpoint
<code>delendptloop</code>	Delete loopback state on an endpoint
<code>delendpts</code>	Delete range of endpoints
<code>dellapdtrunk</code>	Delete LAPD trunk
<code>delln</code>	Delete line
<code>dellnloop</code>	Delete loopback state on a line
<code>dellntoneplan</code>	Delete tone plan from a line
<code>delmgc</code>	Delete MGC
<code>delmgcgrpentry</code>	Delete MGC from a redundancy group
<code>delmgcgrpprotocol</code>	Delete MGC protocol from a redundancy group
<code>delport</code>	Delete port
<code>delrsoprtn</code>	Delete resource partition
<code>delrtppcon</code>	Delete RTP connection
<code>delrudptrunk</code>	Delete RUDP trunk
<code>deltoneplan</code>	Delete tone plan
<code>delxgcpcon</code>	Delete xGCP connection
<code>delxgcppersistevt</code>	Delete persistent xGCP event
<code>dncon</code>	Down connection
<code>dspaal2params</code>	Display AAL2 parameters
<code>dspaal2profile</code>	Display data about AAL2 profile
<code>dspaissuppression</code>	Display AIS suppression status
<code>dspalm</code>	Display alarms for a line
<code>dspalmcnf</code>	Display alarm statistic threshold data for a line
<code>dspalment</code>	Display alarm counters on a line
<code>dspalms</code>	Display alarms for specific line type
<code>dspcacfailcntrs</code>	Display CAC failure counters
<code>dspcalea</code>	Display CALEA configuration status
<code>dspcarddsp</code>	Display card configuration parameters
<code>dspcasendpts</code>	Display CAS endpoint configuration
<code>dspcasglareattrib</code>	Display glare policy attributes
<code>dspcaspackage</code>	Display CAS packages
<code>dspcasparamsource</code>	Display CAS timer source parameters
<code>dspcastimers</code>	Display CAS timers for an endpoint
<code>dspcasvar</code>	Display CAS variant data
<code>dspcasvarendpts</code>	Display all endpoints associated with CAS variant
<code>dspcasvars</code>	Display parameters of all CAS variants

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
dspcasxgcps	Display CAS/xGCP timer parameters
dspccs	Display CCS configuration
dspccschans	Display CCS channels
dspccsent	Display CCS counters
dspcd	Display card configuration
dspcid	Display configuration of CID
dspcids	Display CIDs of LCN
dspco1timer	Display continuity test 1 timer value
dspco2timer	Display continuity test 2 timer value
dspco4timer	Display continuity test 4 timer value
dspcodecjtrdelays	Display codec jitter delay modes
dspcodectmpls	Display all entries in the codec template table
dspcon	Display channel configuration
dspconcac	Display CAC configuration for a connection
dspconcnt	Display counter configuration for a connection
dspcons	Display channel configuration for all connections
dspconvbdpol	Display VBD policies for a channel
dspdiags	Display results of a diagnostic test
dspdisctimers	Display disconnect type method wait delay times
dspdnallips	Display all IP addresses for all domain names on the card
dspdnips	Display all IP addresses for a specific domain name
dspdns	Display configuration for all domain names
dspdnssrvr	Display domain name for a domain server
dspds0execdiag	Display testing is enabled on the channel
dspds0gain	Display adjustable gain values for a DS0
dspds0localcasstatus	Display local CAS status for a DS0
dspds0loop	Display loopback type for a DS0
dspds0musicthreshold	Display music on-threshold for a DS0
dspendpt	Display configuration for an endpoint
dspendptdnsend	Display audit endpoint response naming format
dspendpts	Display configuration for all endpoints
dspexecdial	Display testing status for all channel levels
dspfaxmodemtrace	Display fax/modem trace
dspgain	Display adjustable gain for the card
dspgwstate	Display gateway service state
dspheartbeattimer	Display heartbeat status of the card

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
<code>dsplinecasbits</code>	Display CAS bits values for a line
<code>dsplinesabyte</code>	Display SA buffers on a line
<code>dspln</code>	Display configuration of a line
<code>dsplncids</code>	Display CIDs for a line
<code>dsplndigitorder</code>	Display line digit order
<code>dsplndsp</code>	Display DSP data for a line
<code>dsplndsx0s</code>	Display configuration for all DS0s on a line
<code>dsplnendptstatus</code>	Display endpoint status for a line
<code>dsplnexecdiag</code>	Display channel level testing status
<code>dsplngain</code>	Display adjustable gain for all DS0s on a line
<code>dsplnmusicthreshold</code>	Display music on-hold threshold for all DS0s on a line
<code>dsplnringback</code>	Display ring back tone method for a line
<code>dsplns</code>	Display configuration for all lines on the card
<code>dsplnstate</code>	Display service state of the line
<code>dsplntoneplan</code>	Display tone plan configuration for a line
<code>dsplntonetimeout</code>	Display configured timeout periods for all line tones
<code>dsplongdurationtimer</code>	Display long duration timer
<code>dsplloops</code>	Display all lines and DS0s in the loopback condition
<code>dsplmaxmgcs</code>	Display maximum number of MGC on the card
<code>dsplmgc</code>	Display configuration for an MGC
<code>dsplmgcgrpparams</code>	Display all MGC redundancy group parameters
<code>dsplmgcgrpprotocols</code>	Display all MGC redundancy group protocols
<code>dsplmgcgrps</code>	Display all configured MGC redundancy groups
<code>dsplmgcs</code>	Display configuration for all MGCs
<code>dsplmgprotocols</code>	Display the MG protocols
<code>dsplmidcalltimers</code>	Display mid call DTMF timers
<code>dsplmngcident</code>	Display CID count for an endpoint
<code>dsplmonecanendpt</code>	Display echo cancellation activity for an endpoint
<code>dsplmusicthreshold</code>	Display music on-hold threshold for the card
<code>dsplnwcot</code>	Display network connectivity connection configuration
<code>dsplpoamloopcnt</code>	Display OAM loop count
<code>dsplpoamparams</code>	Display OAM parameters
<code>dsplport</code>	Display virtual port configuration
<code>dsplprofparams</code>	Display profile elements for all profiles
<code>dsplprseprtn</code>	Display resource partition configuration
<code>dsplpsarent</code>	Display SAR counter values for a channel

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
<code>dspsarcnts</code>	Display SAR counter values for all channels
<code>dspsarmsgcnt</code>	Display SAR control message counter values for the card
<code>dspslipcnt</code>	Display clock slip counters for a line
<code>dspsrcpcnt</code>	Display SRCP counters for a call agent
<code>dspsrcpcnts</code>	Display SRCP counters for all call agents
<code>dspsrcppeer</code>	Display configuration for an SRCP peer
<code>dspsrcppeergrpparams</code>	Display SRCP peer group parameters
<code>dspsrcppeers</code>	Display configurations for all SRCP peers
<code>dspsrcpport</code>	Display SRCP port
<code>dspsrcpretry</code>	Display SRCP retransmission parameters
<code>dsptaskinfo</code>	Display operating tasks
<code>dsptonebuiltinplans</code>	Display built-in tone plans
<code>dsptoneplan</code>	Display configuration of a tone plan
<code>dsptoneplans</code>	Display configurations of all tone plans
<code>dsptoneprovplans</code>	Display all provisional tone plans
<code>dsptoneregionplans</code>	Display tone plans by region
<code>dspranscotmode</code>	Display reverse transponder continuity test mode
<code>dspvbdpol</code>	Display VBD policies
<code>dspvccis</code>	Display VCCI values
<code>dspvismdn</code>	Display domain name for card
<code>dspvismip</code>	Display IP address for card
<code>dspvismparam</code>	Display card configuration parameters
<code>dspxgcpbt</code>	Display bear type configuration
<code>dspxgpcalls</code>	Display xGCP call information
<code>dspxgpcids</code>	Display xGCP CIDs
<code>dspxgpcnf</code>	Display xGCP configuration
<code>dspxgpcnt</code>	Display xGCP message statistics for a call agent
<code>dspxgpcnts</code>	Display xGCP message statistics for all call agents
<code>dspxgpccon</code>	Display configuration for call agent connection
<code>dspxgpccons</code>	Display configuration for all call agent connections
<code>dspxgcpdefpkg</code>	Display xGCP default package
<code>dspxgcpdetailcnt</code>	Display detail of message exchange statistics for a call agent
<code>dspxgcpdetailcnts</code>	Display detail message exchange statistics for all call agents
<code>dspxgcpndpt</code>	Display configuration for an xGCP endpoint
<code>dspxgcpndptcons</code>	Display configurations for all xGCP endpoint connections
<code>dspxgcpndpts</code>	Display configurations for all xGCP endpoints

Table 7-6 Switched AAL2 PVC Commands (continued)

Command	Description
<code>dspxgcperrcnt</code>	Display xGCP error counts
<code>dspxgcpinterop</code>	Display status of SDP OST
<code>dspxgcpIncons</code>	Display xGCP line connection information
<code>dspxgcppeers</code>	Display ports for xGCP peers
<code>dspxgcppersistevts</code>	Display all xGCP persistent events
<code>dspxgcpport</code>	Display local xGCP port
<code>dspxgcpretry</code>	Display xGCP retransmission parameters
<code>Help</code>	Help
<code>memShow</code>	Display system memory partition blocks and statistics
<code>pinglndsp</code>	Display DSP configuration data for all endpoints on a line
<code>rrtcon</code>	Trigger re-routing of a connection between two different switches
<code>setfaxmodemtrace</code>	Set fax/modem trace
<code>tstcon</code>	Test a specified connection
<code>tstdelay</code>	Test delay on a specified connection
<code>upcon</code>	Up a connection
<code>version</code>	Display version data

VoIP and AAL1 SVC

The following alphabetical list of commands supports the VoIP and AAL1 SVC mode.

Table 7-7 VoIP and AAL1 Commands

Command	Description
<code>?</code>	Help
<code>addannpermanent</code>	Add announcement server file
<code>addcasvar</code>	Add CAS variant
<code>addcon</code>	Add connection
<code>addconloop</code>	Add local connection loopback
<code>adddn</code>	Add domain name
<code>adddnip</code>	Add IP address to domain
<code>adddualtonedet</code>	Add dual tone frequency
<code>addendpt</code>	Add endpoint
<code>addendptloop</code>	Add endpoint loopback
<code>addendpts</code>	Add endpoints
<code>addlapd</code>	Add LAPD

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
<code>addlapdtrunk</code>	Add LAPD trunk to a line
<code>addln</code>	Add line
<code>addlnloop</code>	Add line loop
<code>addmgc</code>	Add MGC
<code>addmgcgrpentry</code>	Add MGC to a call agent redundancy group
<code>addmgcgrpprotocol</code>	Assign a protocol to an MGC
<code>addport</code>	Add port
<code>addrscprtn</code>	Add resource partition
<code>addrtpcon</code>	Add RTP VoIP trunking connection
<code>addrudptrunk</code>	Add RUDP trunk
<code>addses</code>	Add PRI backhaul session
<code>addsesgrp</code>	Add PRI backhaul session to a group
<code>addsesset</code>	Add PRI backhaul session set
<code>addtoneplan</code>	Add tone plan
<code>addxgcppersistevt</code>	Add persistent xGCP events
<code>cc</code>	Change card
<code>chkflash</code>	Check flash memory
<code>clralm</code>	Clear alarms on a line
<code>clralment</code>	Clear alarm counters on a line
<code>clralmnts</code>	Clear all alarm counters on the card
<code>clralms</code>	Clear all alarms on the card
<code>clrcacfailcntrs</code>	Reset all CAC failures to 0
<code>clrrtpcnt</code>	Clear RTP counter for an RTP connection
<code>clrsarent</code>	Clear SAR counters on a channel
<code>clrsarcnts</code>	Clear all SAR counters on the card
<code>clrsarmsgcnt</code>	Clear control message counters on the card
<code>clrscrn</code>	Clear control terminal screen
<code>clrslipcnt</code>	Clear clock slip counters for a line
<code>clrtaskinfo</code>	Reset the task values
<code>cnfadapgain</code>	Configure DSP adaptive gain
<code>cnfagsvcbw</code>	Aggregate SVC bandwidth
<code>cnfalm</code>	Configure alarm parameters for a line
<code>cnfalment</code>	Configure collection of TDM line statistics
<code>cnfannagetime</code>	Configure nonpermanent announcement time
<code>cnfanndn</code>	Designate announcement file server domain name
<code>cnfannpathprefix</code>	Designate announcement file TFTP path

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
cnfannprefcodec	Configure announcement codec
cnfannreqtimeout	Configure announcement expiration time
cnfcac	Configure CAC on the card
cnfcacparams	Configure CAC parameters
cnfcalea	Configure card for CALEA
cnfcascode	Configure CAS code parameters
cnfcasdelaydialtime	Configure CAS delay dial time
cnfcasdialdelay	Configure CAS wait time
cnfcasendpt	Associate endpoint with CAS name
cnfcasflashtime	Configure CAS flash time
cnfcasglareattrib	Configure CAS glare policy for an endpoint
cnfcasglaretime	Configure CAS glare time for an endpoint
cnfcasguardtime	Configure CAS guard time for an endpoint
cnfcasoffhooktime	Configure CAS off-hook time for an endpoint
cnfcasonhooktime	Configure CAS on-hook time for an endpoint
cnfcaspackage	Configure MGCP packages to notify CAS events
cnfcasparamsource	Configure CAS timer source parameters for an endpoint
cnfcasstartdialtime	Configure CAS start dial time for an endpoint
cnfcasvar	Configure previously added CAS variant
cnfcaswinktime	Configure CAS wink time parameters for an endpoint
cnfcasxgcp	Configure CAS retransmission parameters
cnfco1timer	Configure bearer continuity test 1 timer
cnfco2timer	Configure bearer continuity test 2 timer
cnfco4timer	Configure bearer continuity test 4 timer
cnfcodecjtrdelay	Configure jitter delay for a codec
cnfcodecneg	Configure codec list priority order
cnfcodecpams	Configure codec parameters
cnfcodectmpl	Assign codec template to card
cnfcompsize	Configure compression size
cnfcompvad	Configure VAD
cnfcon	Configure connection parameters
cnfconcacparams	Configure CAC parameters on a PVC
cnfconprotect	Configure protection on a PVC
cnfconvbdpol	Configure VBD policies on a channel
cnfdeftos	Configure type of service parameters
cnfdisctimers	Configure wait delay times for disconnected procedure

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
cnfdn	Configure resolution type for domain
cnfdnssrvr	Designate domain name to domain server
cnfds0execdiag	Configure testing on an endpoint
cnfds0gain	Configure adjustable gain on a DS0
cnfds0localcas	Configure local CAS on a DS0
cnfds0loop	Configure loopback type for DS0
cnfds0musicthreshold	Configure music on-hold threshold for DS0
cnfds0sidpacket	Configure SID packet on a DS0
cnfdsphheartbeattimer	Configure heartbeat message time interval
cnfdynamicpayload	Configure dynamic payload
cnfecanenable	Configure echo cancellation on a line
cnfecanrec	Configure residual echo control on an echo cancellation line
cnfecantail	Configure tail length on an echo cancellation line
cnfendptcadence	Configure cadence times on an endpoint
cnfendptdnsend	Configure datagram size for an endpoint
cnferl	Configure return echo loss value
cnfexecdiag	Configure all channel level testing
cnfgain	Configure adjustable gain on the card
cnfgwis	Configure card to be in-service
cnfgwoos	Configure card to be out-of-service
cnfjtrinitdelay	Configure initial jitter buffer delay size
cnfjtrmode	Configure jitter buffer delay mode
cnflapdretrans	Configure maximum retransmission
cnflapdtimer	Configure two LAPD timers
cnflapdrtrunkpvc	Assign a PVC to carry LAPD messages
cnflapdtype	Configure LAPD stacks
cnflapdwinsize	Configure maximum number of unacknowledged I-frames
cnflinesabyte	Configure SA bytes on a line
cnfln	Configure line parameters
cnflndigitorder	Configure digit order on a line
cnflnexecdiag	Configure channel level testing on a line
cnflngain	Configure adjustable gain for all DS0s on a line
cnflnis	Configure line to be in-service
cnflnmusicthreshold	Configure music on threshold for all DS0s on a line
cnflnoos	Configure line to be out-of-service
cnflnringback	Configure ring back tone on a line

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
cnflnsidpacket	Configure SID packet on a line
cnflnsig	Configure signaling on a line
cnflntoneplan	Assign tone plan to a line
cnflntonetimout	Configure tone timeout periods for a line
cnflntrunkcond	Configure trunk conditioning
cnflongdurationtimer	Configure long duration timer
cnfmgcgrpentry	Configure priority of call agent within a group
cnfmgcgrpparam	Configure MGCP group parameters
cnfmgcgrpprotocol	Configure call agent group protocol
cnfmidcalltimers	Configure mid call DTMF timers
cnfmusicthreshold	Configure music on-hold threshold
cnfnwcot	Configure card for network continuity test
cnfoamloopcnt	Configure OAM loop count
cnfoamparams	Configure OAM parameters
cnfplayouttimestamp	Enable playout timestamp
cnfplayouttimestamp	Configure route priority for a connection
cnfrsvp	Configure RSVP for a connection
cnfrsvpprefreshmiss	Configure RSVP refresh message wait time
cnfrtcprepint	Configure RTCP interval
cnfrtpcon	Configure RTP connection
cnfrtprxtimer	Configure RTP messages
cnfrudptrunkrmtip	Configure remote IP address of an RUDP trunk
cnfseqtonedet	Change the default settings of a sequential tone
cnfsesack	Configure timeout period before sending an acknowledgement
cnfsesmaxreset	Configure session maximum number of resets
cnfsesmaxseg	Configure session maximum segment size
cnfsesmaxwindow	Configure session maximum number of segments
cnfsesnullsegmtout	Configure session null segment idle time
cnfsesoutofseq	Configure session out-of-sequence packets
cnfsesport	Configure session port
cnfsesretrans	Configure session retransmission times
cnfsesstatetmout	Configure session transfer state timeout
cnfsessyncatmps	Configure session sync attempts with call agent
cnfsidpacket	Configure SID packet on all lines
cnfsrcpeer	Configure SRCP port
cnfsrcpeergrpparam	Configure SRCP parameters for a redundancy group

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
cnfsrcretry	Configure SRCP retry count
cnfsvqosparam	Configure Quality of Service parameters
cnft38fxlco	Configure fax handling on a line
cnft38nsetimeout	Configure timeout value for switch to fax transfer mode
cnft38params	Configure fax parameters for a line
cnftftpdn	Configure TFTP domain name
cnfranscotmode	Configures the continuity test for the TDM side
cnfrfaggclip	Configure aggregate traffic clipping
cnfvbdcodec	Configure VBD codec on the card
cnfvbdmarconi	Enable VBD upspeed detection
cnfvbdpol	Configure VBD policies on the card
cnfvismdn	Configure card domain name
cnfvismip	Configure card IP address
cnfvismmode	Configure operating mode
cnfvoiptimerparam	Configure VAD holdover time
cnfvoiptransparams	Configure VoIP transportation parameters
cnfxgcpbt	Configure bearer type
cnfxgcpinteropsdpost	Configure SDP OST interoperability
cnfxgcpmwd	Configure maximum wait delay to send RSIP message
cnfxgcppeer	Configure UDP port for gateway messages
cnfxgcpretry	Configure call agent communication retries
delannalldynamic	Delete all announcement files
delanndynamic	Delete announcement file
delannpermanent	Delete permanent announcement file
delcasvar	Delete CAS variant
delcon	Delete connection
delconloop	Delete local loop-back state on a connection
deldn	Delete domain name
deldnip	Delete domain IP address
deldualtonedet	Remove a dual frequency tone
delendpt	Delete endpoint
delendptloop	Delete loopback state on an endpoint
delendpts	Delete range of endpoints
dellapd	Delete LAPD
dellapdtrunk	Delete LAPD trunk
delln	Delete line

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
<code>dellnloop</code>	Delete loopback state on a line
<code>dellntoneplan</code>	Delete tone plan from a line
<code>delmgc</code>	Delete MGC
<code>delmgcgrpentry</code>	Delete MGC from a redundancy group
<code>delmgcgrpprotocol</code>	Delete MGC protocol from a redundancy group
<code>delport</code>	Delete port
<code>delrscprtn</code>	Delete resource partition
<code>delrtppcon</code>	Delete RTP connection
<code>delrudptrunk</code>	Delete RUDP trunk
<code>delses</code>	Delete session
<code>delsesgrp</code>	Delete session group
<code>delsesst</code>	Delete session set
<code>deltoneplan</code>	Delete tone plan
<code>delxgcpcon</code>	Delete xGCP connection
<code>delxgcppersistevt</code>	Delete persistent xGCP event
<code>dncon</code>	Down connection
<code>dspaggsvcbw</code>	Display configured SVC bandwidth
<code>dspalm</code>	Display alarms for a line
<code>dspalmcnf</code>	Display alarm statistic threshold data for a line
<code>dspalment</code>	Display alarm counters on a line
<code>dspalms</code>	Display alarms for specific line type
<code>dspannagetime</code>	Display announcement age time
<code>dspanncache</code>	Display available announcement file names
<code>dspanncontrols</code>	Display announcement file variables
<code>dspanndn</code>	Display announcement file server domain name
<code>dspannpathprefix</code>	Display announcement prefix directory path
<code>dspannpermanents</code>	Display all permanent announcement files
<code>dspannprefcodec</code>	Display announcement preference codec
<code>dspannreqtimeout</code>	Display announcement timeout
<code>dspavgsvctimes</code>	Display table of SVC SAPI message processing statistic averages
<code>dspcacfailcntrs</code>	Display CAC failure counters
<code>dspcalea</code>	Display CALEA configuration status
<code>dspcarddsp</code>	Display card configuration parameters
<code>dspcasendpts</code>	Display CAS endpoint configuration
<code>dspcasglareattrib</code>	Display glare policy attributes

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
<code>dspcaspackage</code>	Display CAS packages
<code>dspcasparamsource</code>	Display CAS timer source parameters
<code>dspcastimers</code>	Display CAS timers for an endpoint
<code>dspcasvar</code>	Display CAS variant data
<code>dspcasvarendpts</code>	Display all endpoints associated with CAS variant
<code>dspcasvars</code>	Display parameters of all CAS variants
<code>dspcasxgcps</code>	Display CAS/xGCP timer parameters
<code>dspcctimes</code>	Display call control MGCP message processing statistics
<code>dspcd</code>	Display card configuration
<code>dspco1timer</code>	Display continuity test 1 timer value
<code>dspco2timer</code>	Display continuity test 2 timer value
<code>dspco4timer</code>	Display continuity test 4 timer value
<code>dspcodecjrtdelays</code>	Display codec jitter delay modes
<code>dspcodecneg</code>	Display codec negotiation option
<code>dspcodecparams</code>	Display codec parameters
<code>dspcodectmpls</code>	Display all entries in the codec template table
<code>dspcon</code>	Display channel configuration
<code>dspconcac</code>	Display CAC configuration for a connection
<code>dspconcnt</code>	Display counter configuration for a connection
<code>dspcons</code>	Display channel configuration for all connections
<code>dspconvbdpol</code>	Display VBD policies for a channel
<code>dspdiags</code>	Display results of a diagnostic test
<code>dspdisctimers</code>	Display disconnect type method wait delay times
<code>dspdnallips</code>	Display all IP addresses for all domain names on the card
<code>dspdnips</code>	Display all IP addresses for a specific domain name
<code>dspdns</code>	Display configuration for all domain names
<code>dspdnssrvr</code>	Display domain name for a domain server
<code>dspds0execdiag</code>	Display testing is enabled on the channel
<code>dspds0gain</code>	Display adjustable gain values for a DS0
<code>dspds0localcasstatus</code>	Display local CAS status for a DS0
<code>dspds0loop</code>	Display loopback type for a DS0
<code>dspds0musicthreshold</code>	Display music on-threshold for a DS0
<code>dspds0sidpacket</code>	Display SID packet status for a DS0
<code>dspdualtonedet</code>	Display dynamic payload for the card
<code>dspdynamicepayload</code>	Display dynamic payload for the card
<code>dspendpt</code>	Display configuration for an endpoint

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
<code>dspendptdntsend</code>	Display audit endpoint response naming format
<code>dspendpts</code>	Display all endpoints
<code>dspexecddiag</code>	Display testing status for all channel levels
<code>dspfmxmodemtrace</code>	Display fax/modem trace
<code>dspgain</code>	Display adjustable gain for the card
<code>dspgwstate</code>	Display gateway service state
<code>dspheartbeattimer</code>	Display heartbeat status of the card
<code>dsplapd</code>	Display configuration of LAPD channel
<code>dsplapds</code>	Display configuration for all LAPD channels
<code>dsplapdstat</code>	Display LAPD channel statistics
<code>dsplapdtrunkpvc</code>	Display LAPD trunk PVC carrier
<code>dsplapdtrunks</code>	Display configuration of all LAPD trunks
<code>dsplinecasbits</code>	Display CAS bits values for a line
<code>dsplinesabyte</code>	Display SA buffers on a line
<code>dspln</code>	Display configuration of a line
<code>dsplndigitorder</code>	Display line digit order
<code>dsplndsp</code>	Display DSP data for a line
<code>dsplnds0s</code>	Display configuration for all DS0s on a line
<code>dsplnendptstatus</code>	Display endpoint status for a line
<code>dsplnexecddiag</code>	Display channel level testing status
<code>dsplngain</code>	Display adjustable gain for all DS0s on a line
<code>dsplnmusicthreshold</code>	Display music on-hold threshold for all DS0s on a line
<code>dsplnringback</code>	Display ring back tone method for a line
<code>dsplns</code>	Display configuration for all lines on the card
<code>dsplnsidpacket</code>	Display the SID packet status for the DS0s on the line
<code>dsplnstate</code>	Display service state of the line
<code>dsplntoneplan</code>	Display tone plan configuration for a line
<code>dsplntonetimeout</code>	Display configured timeout periods for all line tones
<code>dsplongdurationtimer</code>	Display long duration timer
<code>dsploops</code>	Display all lines and DS0s in the loopback condition
<code>dspmaxmgcs</code>	Display maximum number of MGC on the card
<code>dspmgc</code>	Display configuration for an MGC
<code>dspmgcgrpparams</code>	Display all MGC redundancy group parameters
<code>dspmgcgrpprotocols</code>	Display all MGC redundancy group protocols
<code>dspmgcgrps</code>	Display all configured MGC redundancy groups
<code>dspmgs</code>	Display configuration for all MGCs

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
<code>dspmgprotocols</code>	Display the MG protocols
<code>dspmidcalltimers</code>	Display mid call DTMF timers
<code>dspmonecanendpt</code>	Display echo cancellation activity for an endpoint
<code>dspmusicthreshold</code>	Display music on-hold threshold for the card
<code>dspnwcot</code>	Display network connectivity connection configuration
<code>dsपोामloopcnt</code>	Display OAM loop count
<code>dsपोामparams</code>	Display OAM parameters
<code>dsport</code>	Display virtual port configuration
<code>dsprscprtn</code>	Display resource partition configuration
<code>dsprsvpif</code>	Display RSVP configuration for a connection
<code>dsprsvpreq</code>	Display configuration for an RSVP request
<code>dsprsvpreqs</code>	Display configuration for all RSVP requests on the card
<code>dsprsvpresv</code>	Display bandwidth reservation for an RSVP request
<code>dsprsvpresvs</code>	Display bandwidth reservations for all RSVP requests
<code>dsprsvpsender</code>	Display path state for an RSVP request
<code>dsprsvpsenders</code>	Display path states for all RSVP requests
<code>dsprtpcnt</code>	Display RTP bearer counters
<code>dsprtpcn</code>	Display configuration for an RTP connection
<code>dsprtpcnstat</code>	Display RTP connection statistics for an endpoint
<code>dsprtpcns</code>	Display configuration for all RTP connections
<code>dsrudpitrunk</code>	Display configuration for an RUDP session
<code>dsrudpitrunks</code>	Display configuration for all RUDP sessions
<code>dspsarent</code>	Display SAR counter values for a channel
<code>dspsarents</code>	Display SAR counter values for all channels
<code>dspsarmsgcnt</code>	Display SAR control message counter values for the card
<code>dspseqtonedet</code>	Display configuration data of a sequential tone
<code>dspses</code>	Display configuration for a session
<code>dspsesgrp</code>	Display configuration for a session group
<code>dspsesgrps</code>	Display configuration for all session groups
<code>dspsess</code>	Display configuration for all sessions
<code>dspsesset</code>	Display configuration for a session set
<code>dspsesstat</code>	Display configuration of session statistics
<code>dspsidpacket</code>	Display SID packet configuration for each line
<code>dspslipcnt</code>	Display clock slip counters for a line
<code>dspsrpcnt</code>	Display SRCP counters for a call agent
<code>dspsrpcnts</code>	Display SRCP counters for all call agents

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
<code>dspsrcpeer</code>	Display configuration for an SRCP peer
<code>dspsrcpeergrpparams</code>	Display SRCP peer group parameters
<code>dspsrpeers</code>	Display configurations for all SRCP peers
<code>dspsrcport</code>	Display SRCP port
<code>dspsrcpretry</code>	Display SRCP retransmission parameters
<code>dspsvccallstruct</code>	Display all SVC call table information
<code>dspsvccalltable</code>	Display SVC call table
<code>dspsvccalltimers</code>	Display timers pending for each call
<code>dspsvccause</code>	Print the text description for the cause
<code>dspsvccnts</code>	Display SVC SAPI message processing counts
<code>dspsvcecons</code>	Display active SVCs
<code>dspsvcgw</code>	Display SVC gateway parameters
<code>dspsvcqosparam</code>	Display Quality of Service parameters
<code>dspt38fxlco</code>	Display fax handling instructions for a line
<code>dspt38fxlcos</code>	Display fax handling instructions for all lines
<code>dspt38nsetimeout</code>	Display NSE timeout for a line
<code>dspt38nsetimeouts</code>	Display NSE timeout for all lines
<code>dspt38params</code>	Display fax transfer parameters for a line
<code>dsptaskinfo</code>	Display operating tasks
<code>dsptonebuiltinplans</code>	Display built-in tone plans
<code>dsptoneplan</code>	Display configuration of a tone plan
<code>dsptoneplans</code>	Display configurations of all tone plans
<code>dsptoneprovplans</code>	Display all provisional tone plans
<code>dsptoneregionplans</code>	Display tone plans by region
<code>dsptranscotmode</code>	Display reverse transponder continuity test mode
<code>dspvbdcodec</code>	Display upspeed codec for VBD
<code>dspvbdmarconi</code>	Display VBD upspeed mode
<code>dspvbdpol</code>	Display VBD policies
<code>dspvismdn</code>	Display domain name for card
<code>dspvismip</code>	Display IP address for card
<code>dspvismparam</code>	Display card configuration parameters
<code>dspsvoipparams</code>	Display VoIP mode parameters
<code>dspxgcpbt</code>	Display bear type configuration
<code>dspxgcpcalls</code>	Display xGCP call information
<code>dspxgcpconf</code>	Display xGCP configuration
<code>dspxgcpcent</code>	Display xGCP message statistics for a call agent

Table 7-7 VoIP and AAL1 Commands (continued)

Command	Description
dspxgpcnts	Display xGCP message statistics for all call agents
dspxgpccon	Display configuration for call agent connection
dspxgpccons	Display configuration for all call agent connections
dspxgcpdefpkg	Display xGCP default package
dspxgcpdetailcnt	Display detail of message exchange statistics for a call agent
dspxgcpdetailcnts	Display detail message exchange statistics for all call agents
dspxgcpendpt	Display configuration for an xGCP endpoint
dspxgcpendptcons	Display configurations for all xGCP endpoint connections
dspxgcpendpts	Display configurations for all xGCP endpoints
dspxgcperrcnt	Display xGCP error counts
dspxgcpinterop	Display status of SDP OST
dspxgcpIncons	Display xGCP line connection information
dspxgcppeers	Display ports for xGCP peers
dspxgcppersistevts	Display all xGCP persistent events
dspxgcpport	Display local xGCP port
dspxgcpretry	Display xGCP retransmission parameters
Help	Help
memShow	Display system memory partition blocks and statistics
pingIndsp	Display DSP configuration data for all endpoints on a line
rrtcon	Trigger re-routing of a connection between two different switches
setfaxmodemtrace	Set fax/modem trace
svcntsreset	Set SVC counters to 0
tstcon	Test a specified connection
tstdelay	Test delay on a specified connection
upcon	Up a connection
version	Display version data

VoIP Trunking/AAL2 Trunking

The following alphabetical list of commands supports the VoIP trunking/AAL2 trunking modes.

Table 7-8 VoIP Trunking/AAL2 Trunking Commands

Command	Description
?	Help
addannpermanent	Add announcement server file

Table 7-8 VoIP Trunking/AAL2 Trunking Commands (continued)

Command	Description
<code>addcasvar</code>	Add CAS variant
<code>addccs</code>	Add CCS channel
<code>addcid</code>	Add CID
<code>addcon</code>	Add connection
<code>addconloop</code>	Add local connection loopback
<code>addendpt</code>	Add endpoint
<code>addendptloop</code>	Add endpoint loopback
<code>addendpts</code>	Add endpoints
<code>addlapdtrunk</code>	Add LAPD trunk to a line
<code>addln</code>	Add line
<code>addlnloop</code>	Add line loop
<code>addport</code>	Add port
<code>addrscprtn</code>	Add resource partition
<code>addrtpcon</code>	Add RTP VoIP trunking connection
<code>addrudptrunk</code>	Add RUDP trunk
<code>cc</code>	Change card
<code>chkflash</code>	Check flash memory
<code>clralm</code>	Clear alarms on a line
<code>clralment</code>	Clear alarm counters on a line
<code>clralments</code>	Clear all alarm counters on the card
<code>clralms</code>	Clear all alarms on the card
<code>clrcacfailentrs</code>	Reset all CAC failures to 0
<code>clrcscent</code>	Clear CCS counter values on a line
<code>clrcsents</code>	Clear CCC counter values on all lines
<code>clrmngcident</code>	Clear CID counters
<code>clrrtpent</code>	Clear RTP counter for an RTP connection
<code>clrsarent</code>	Clear SAR counters on a channel
<code>clrsarents</code>	Clear all SAR counters on the card
<code>clrsarmsgcnt</code>	Clear control message counters on the card
<code>clrscrn</code>	Clear control terminal screen
<code>clrslipent</code>	Clear clock slip counters for a line
<code>clrtaskinfo</code>	Reset the task values
<code>cnfaal2subcellmuxing</code>	Configure subcell multiplexing
<code>cnfaal2timerparams</code>	Configure AAL2 timer parameters
<code>cnfadapgain</code>	Configure DSP adaptive gain
<code>cnfaissuppression</code>	Configure AIS suppression

Table 7-8 VoIP Trunking/AAL2 Trunking Commands (continued)

Command	Description
cnfalm	Configure alarm parameters for a line
cnfalmnt	Configure collection of TDM line statistics
cnfannagetime	Configure nonpermanent announcement time
cnfanndn	Designate announcement file server domain name
cnfannpathprefix	Designate announcement file TFTP path
cnfannprefcodec	Configure announcement codec
cnfannreqtimeout	Configure announcement expiration time
cnfcac	Configure CAC on the card
cnfcacparams	Configure CAC parameters
cnfcalea	Configure card for CALEA
cnfcascode	Configure CAS code parameters
cnfcasdelaydialtime	Configure CAS delay dial time
cnfcasdialdelay	Configure CAS wait time
cnfcasendpt	Associate endpoint with CAS name
cnfcasflashtime	Configure CAS flash time
cnfcasglareattrib	Configure CAS glare policy for an endpoint
cnfcasglaretime	Configure CAS glare time for an endpoint
cnfcasguardtime	Configure CAS guard time for an endpoint
cnfcasoffhooktime	Configure CAS off-hook time for an endpoint
cnfcasonhooktime	Configure CAS on-hook time for an endpoint
cnfcaspackage	Configure MGCP packages to notify CAS events
cnfcasparamsource	Configure CAS timer source parameters for an endpoint
cnfcasstartdialtime	Configure CAS start dial time for an endpoint
cnfcasvar	Configure previously added CAS variant
cnfcaswinktime	Configure CAS wink time parameters for an endpoint
cnfcasxgcp	Configure CAS retransmission parameters
cnfcodecjtrdelay	Configure jitter delay for a codec
cnfcodecpars	Configure codec parameters
cnfcodectmpl	Assign codec template to card
cnfcompvad	Configure VAD
cnfcon	Configure connection parameters
cnfconcac	Configure CAC on a connection
cnfconcacparams	Configure CAC parameters on a PVC
cnfconprotect	Configure protection on a PVC
cnfconvbdpol	Configure VBD policies on a channel
cnfdeftos	Configure type of service parameters

Table 7-8 VoIP Trunking/AAL2 Trunking Commands (continued)

Command	Description
<code>cnfds0execdiag</code>	Configure testing on an endpoint
<code>cnfds0gain</code>	Configure adjustable gain on a DS0
<code>cnfds0localcas</code>	Configure local CAS on a DS0
<code>cnfds0loop</code>	Configure loopback type for DS0
<code>cnfds0musicthreshold</code>	Configure music on-hold threshold for DS0
<code>cnfds0sidpacket</code>	Configure SID packet on a DS0
<code>cnfdspheartbeattimer</code>	Configure heartbeat message time interval
<code>cnfdynamicpayload</code>	Configure dynamic payload
<code>cnfecanenable</code>	Configure echo cancellation on a line
<code>cnfecanrec</code>	Configure residual echo control on an echo cancellation line
<code>cnfecantail</code>	Configure tail length on an echo cancellation line
<code>cnfendptcadence</code>	Configure cadence times on an endpoint
<code>cnferl</code>	Configure return echo loss value
<code>cnfexecdiag</code>	Configure all channel level testing
<code>cnfgain</code>	Configure adjustable gain on the card
<code>cnfjtrinitdelay</code>	Configure initial jitter buffer delay size
<code>cnfjtrmode</code>	Configure jitter buffer delay mode
<code>cnflapdtrunkpvc</code>	Assign a PVC to carry LAPD messages
<code>cnflinesabyte</code>	Configure SA bytes on a line
<code>cnfln</code>	Configure line parameters
<code>cnflnexecdiag</code>	Configure channel level testing on a line
<code>cnflngain</code>	Configure adjustable gain for all DS0s on a line
<code>cnflnmusicthreshold</code>	Configure music on threshold for all DS0s on a line
<code>cnflnsidpacket</code>	Configure SID packet on a line
<code>cnflnsig</code>	Configure signaling on a line
<code>cnflntrunkcond</code>	Configure trunk conditioning
<code>cnfmusicthreshold</code>	Configure music on-hold threshold
<code>cnfoamloopcnt</code>	Configure OAM loop count
<code>cnfplayouttimestamp</code>	Enable playout timestamp
<code>cnfplayouttimestamp</code>	Configure route priority for a connection
<code>cnfprofelemvbd</code>	Configure profile element for a profile
<code>cnfprofelemvoice</code>	Configure profile voice element
<code>cnfprofparams</code>	Configure profile preference
<code>cnfrsvp</code>	Configure RSVP for a connection
<code>cnfrsvprefreshmiss</code>	Configure RSVP refresh message wait time
<code>cnfrtcprepint</code>	Configure RTCP interval

Table 7-8 VoIP Trunking/AAL2 Trunking Commands (continued)

Command	Description
<code>cnfrtpcon</code>	Configure RTP connection
<code>cnfrtprxtimer</code>	Configure RTP messages
<code>cnfrudptrunkrmtip</code>	Configure remote IP address of an RUDP trunk
<code>cnfsidpacket</code>	Configure SID packet on all lines
<code>cnft38fxlco</code>	Configure fax handling on a line
<code>cnft38nsetimeout</code>	Configure timeout value for switch to fax transfer mode
<code>cnft38params</code>	Configure fax parameters for a line
<code>cnfvbdcodec</code>	Configure VBD codec on the card
<code>cnfvbdmarconi</code>	Enable VBD upspeed detection
<code>cnfvbdpol</code>	Configure VBD policies on the card
<code>cnfvismip</code>	Configure card IP address
<code>cnfvismmode</code>	Configure operating mode
<code>cnfxgcpbt</code>	Configure bearer type
<code>delannalldynamic</code>	Delete all announcement files
<code>delanndynamic</code>	Delete announcement file
<code>delannpermanent</code>	Delete permanent announcement file
<code>delcasvar</code>	Delete CAS variant
<code>delccs</code>	Delete CCS
<code>delcid</code>	Delete CID
<code>delcon</code>	Delete connection
<code>delconloop</code>	Delete local loop-back state on a connection
<code>delendpt</code>	Delete endpoint
<code>delendptloop</code>	Delete loopback state on an endpoint
<code>delendpts</code>	Delete range of endpoints
<code>dellapdtrunk</code>	Delete LAPD trunk
<code>delln</code>	Delete line
<code>dellnloop</code>	Delete loopback state on a line
<code>delport</code>	Delete port
<code>delrscrptn</code>	Delete resource partition
<code>delrtpcon</code>	Delete RTP connection
<code>delrudptrunk</code>	Delete RUDP trunk
<code>dncon</code>	Down connection
<code>dspaal2params</code>	Display AAL2 parameters
<code>dspaal2profile</code>	Display data about AAL2 profile
<code>dspaissuppression</code>	Display AIS suppression status
<code>dspalm</code>	Display alarms for a line

Table 7-8 VoIP Trunking/AAL2 Trunking Commands (continued)

Command	Description
<code>dsपालमन्फ</code>	Display alarm statistic threshold data for a line
<code>dsपालमन्त</code>	Display alarm counters on a line
<code>dsपालमन्स</code>	Display alarms for specific line type
<code>dsपालननगतनत</code>	Display announcement age time
<code>dsपालननकनक</code>	Display available announcement file names
<code>dsपालननकन्तल</code>	Display announcement file variables
<code>dsपालननदन्</code>	Display announcement file server domain name
<code>dsपालननपनथपनफनख</code>	Display announcement prefix directory path
<code>dsपालननपनरनननत</code>	Display all permanent announcement files
<code>dsपालननपनरनकनक</code>	Display announcement preference codec
<code>dsपालननरनकतनत</code>	Display announcement timeout
<code>dsपालकनफनलननर</code>	Display CAC failure counters
<code>dsपालकनल</code>	Display CALEA configuration status
<code>dsपालकनददसप</code>	Display card configuration parameters
<code>dsपालकनलनदपत</code>	Display CAS endpoint configuration
<code>dsपालकनलनरनलननत</code>	Display glare policy attributes
<code>dsपालकनलनसपनकनक</code>	Display CAS packages
<code>dsपालकनलनसपनरननसकन</code>	Display CAS timer source parameters
<code>dsपालकनलनसतनर</code>	Display CAS timers for an endpoint
<code>dsपालकनलनसवर</code>	Display CAS variant data
<code>dsपालकनलनसवरननदपत</code>	Display all endpoints associated with CAS variant
<code>dsपालकनलनसवरन</code>	Display parameters of all CAS variants
<code>dsपालकनलनखगकप</code>	Display CAS/xGCP timer parameters
<code>dsपालकन</code>	Display CCS configuration
<code>dsपालकनसकनन</code>	Display CCS channels
<code>dsपालकनसकनत</code>	Display CCS counters
<code>dsपालकनद</code>	Display card configuration
<code>dsपालकनद</code>	Display configuration of CID
<code>dsपालकनद</code>	Display CIDs of LCN
<code>dsपालकनदकननरदलनस</code>	Display codec jitter delay modes
<code>dsपालकनदकनरननन</code>	Display codec parameters
<code>dsपालकनदकनतमपल</code>	Display all entries in the codec template table
<code>dsपालकनदकन</code>	Display channel configuration
<code>dsपालकनदकनक</code>	Display CAC configuration for a connection
<code>dsपालकनदकननत</code>	Display counter configuration for a connection
<code>dsपालकनदकनस</code>	Display channel configuration for all connections

Table 7-8 VoIP Trunking/AAL2 Trunking Commands (continued)

Command	Description
<code>dspconvbdpol</code>	Display VBD policies for a channel
<code>dspdiags</code>	Display results of a diagnostic test
<code>dspds0execdiag</code>	Display testing is enabled on the channel
<code>dspds0gain</code>	Display adjustable gain values for a DS0
<code>dspds0localcasstatus</code>	Display local CAS status for a DS0
<code>dspds0loop</code>	Display loopback type for a DS0
<code>dspds0musicthreshold</code>	Display music on-threshold for a DS0
<code>dspds0sidpacket</code>	Display SID packet status for a DS0
<code>dspdynamicpayload</code>	Display dynamic payload for the card
<code>dspendpt</code>	Display configuration for an endpoint
<code>dspendpts</code>	Display configuration for all endpoints
<code>dspexecdiag</code>	Display testing status for all channel levels
<code>dspfaxmodemtrace</code>	Display fax/modem trace
<code>dspgain</code>	Display adjustable gain for the card
<code>dspheartbeattimer</code>	Display heartbeat status of the card
<code>dsplapdtrunkpvc</code>	Display LAPD trunk PVC carrier
<code>dsplapdtrunks</code>	Display configuration of all LAPD trunks
<code>dsplinecasbits</code>	Display CAS bits values for a line
<code>dsplinesabyte</code>	Display SA buffers on a line
<code>dspln</code>	Display configuration of a line
<code>dsplncids</code>	Display CIDs for a line
<code>dsplndsp</code>	Display DSP data for a line
<code>dsplndsx0s</code>	Display configuration for all DS0s on a line
<code>dsplnendptstatus</code>	Display endpoint status for a line
<code>dsplnexecdiag</code>	Display channel level testing status
<code>dsplngain</code>	Display adjustable gain for all DS0s on a line
<code>dsplnmusicthreshold</code>	Display music on-hold threshold for all DS0s on a line
<code>dsplns</code>	Display configuration for all lines on the card
<code>dsplnsidpacket</code>	Display the SID packet status for the DS0s on the line
<code>dsploops</code>	Display all lines and DS0s in the loopback condition
<code>dspmngcident</code>	Display CID count for an endpoint
<code>dspmonecanendpt</code>	Display echo cancellation activity for an endpoint
<code>dspmusicthreshold</code>	Display music on-hold threshold for the card
<code>dspoamloopcnt</code>	Display OAM loop count
<code>dspport</code>	Display virtual port configuration
<code>dspprofparams</code>	Display profile elements for all profiles

Table 7-8 VoIP Trunking/AAL2 Trunking Commands (continued)

Command	Description
dsprscprtn	Display resource partition configuration
dsprsvpif	Display RSVP configuration for a connection
dsprsvpreq	Display configuration for an RSVP request
dsprsvpreqs	Display configuration for all RSVP requests on the card
dsprsvpresv	Display bandwidth reservation for an RSVP request
dsprsvpresvs	Display bandwidth reservations for all RSVP requests
dsprsvpsender	Display path state for an RSVP request
dsprsvpsenders	Display path states for all RSVP requests
dsprtpcnt	Display RTP bearer counters
dsprtpcn	Display configuration for an RTP connection
dsprtpcnstat	Display RTP connection statistics for an endpoint
dsprtpcns	Display configuration for all RTP connections
dsprudp trunk	Display configuration for an RUDP session
dsprudp trunks	Display configuration for all RUDP sessions
dspsarent	Display SAR counter values for a channel
dspsarents	Display SAR counter values for all channels
dspsarmsgcnt	Display SAR control message counter values for the card
dspsidpacket	Display SID packet configuration for each line
dspslipcnt	Display clock slip counters for a line
dspt38fxlco	Display fax handling instructions for a line
dspt38fxlcoss	Display fax handling instructions for all lines
dspt38nsetimeout	Display NSE timeout for a line
dspt38nsetimeouts	Display NSE timeout for all lines
dspt38params	Display fax transfer parameters for a line
dsptaskinfo	Display operating tasks
dspvbdcodec	Display upspeed codec for VBD
dspvbdmarconi	Display VBD upspeed mode
dspvbdpol	Display VBD policies
dspvismip	Display IP address for card
dspvismparam	Display card configuration parameters
dspxgcpbt	Display bear type configuration
Help	Help
memShow	Display system memory partition blocks and statistics
pinglndsp	Display DSP configuration data for all endpoints on a line
rrtcon	Trigger re-routing of a connection between two different switches

Table 7-8 VoIP Trunking/AAL2 Trunking Commands (continued)

Command	Description
setfaxmodemtrace	Set fax/modem trace
tstcon	Test a specified connection
tstdelay	Test delay on a specified connection
upcon	Up a connection
version	Display version data

■ ?

?

To display some or all commands associated with the current card, use the ? command.

?

Syntax Description This command has no arguments.

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

Usage Guidelines You can enter a complete or partial command name. If you do not type the name of a command, the entire command list is displayed.

Examples The following example shows a list of all commands that contain the string ecan—a partial command name:

```
? ecan
```

```
Available commands
-----
cnfecancnf
cnfecannoise
cnfecannr
cnfecanrec
cnfecantail
```

Related Commands	Command	Description
	Help	Displays commands associated with the current card.

addannpermanent

To configure an announcement server file and associated codec type as permanent, use the **addannpermanent** command.

```
addannpermanent <ann_Index> <ann_file_name> <ann_codec>
```

Syntax Description

<i>ann_Index</i>	Announcement file server index number which you assign to identify a permanent announcement server file. Range is 1–125.
<i>ann_file_name</i>	Announcement filename. The name can be from 1–64 alphanumeric characters, including the following symbols: period (.), forward slash (/), underscore (_), and hyphen (-).
<i>ann_codec</i>	Announcement filename associated codec. <ul style="list-style-type: none"> • 1 = G.711u • 2 = G.711a • 3 = G.726-32K • 4 = G.729a • 5 = G.729ab • 7 = G.726-16K • 8 = G.726-24K • 9 = G.726-40K • 10 = Not used • 11 = G.723-H • 12 = G.723.1-AH • 13 = G.723.1-L • 14 = G.723.1-AL

Command Modes

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

Usage Guidelines

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

Examples

The following example shows that index server number 19 is configured with the announce1 file in the G.726-40K codec:

```
addannpermanent 19 announce1 9
```

Related Commands	Command	Description
	cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
	cnfanndn	Designates an announcement file server domain name.
	cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
	cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
	cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
	delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
	delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
	delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
	dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
	dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
	dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
	dspanndn	Displays the announcement file server domain name.
	dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
	dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
	dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

addcasvar

To add a channel associated signaling (CAS) variant to a VISM card, name the CAS variant file, and optionally set the source of the file, use the **addcasvar** command.

```
addcasvar <variant_name> <file_name> [/cas_var_source/]
```

Syntax Description

<i>variant_name</i>	Name of the CAS variant; a text string of 1 to 64 alphanumeric characters.
<i>file_name</i>	Name of the file that contains the signal definition for the CAS variant. <ul style="list-style-type: none"> • wink_did_dod.o = wink start • ground_start.o = ground start • wink_did_dod_mf.o = wink start multifrequency • q50.o = Q.50 • fgd_ea_incoming.o = for endpoints connected to an end office • fgd_ea_outgoing.o = for endpoints connected to an access carrier • fgd_os_e911.o = for endpoints connected to FDG OSS (Feature group D operator services system) • loop_start.o = loop start • delay_did_dod.o = dial delay, DTMF • delay_did_dod_mf.o = dial delay, MF • immed_did_dod.o = immediate start • immed_did_dod_mf.o = immediate start, MF <p>For user-configured files, the range is 2–32 alphanumeric characters.</p>
<i>/cas_var_source/</i>	(Optional) CAS variant file location. <ul style="list-style-type: none"> • 1 = Unspecified. If TFTP domain is configured, the location is the TFTP server. If not found in the TFTP server, the file is treated as built-in. • 2 = Internal—File location is user-configured (built-in). • 3 = External—File resides on the TFTP server.

Command Modes

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

Usage Guidelines

Before you can execute this command, download a file containing the variant information to the Cisco MGX 8000 Series platform PXM card, using a separate application (such as TFTP).

This command downloads the specified file from the PXM card and configures the CAS variant on the VISM card based on the information in the file. You can use this command at any time to add a new CAS variant.

Examples

The following example shows that a wink start CAS variant called casvar is added to a VISM card based on information contained in the wink_did_dod.o file, which is located in the internal (built-in) location:

```
addcasvar casvar wink_did_dod.o 2
```

Related Commands

Command	Description
cnfcasvar	Configures CAS variant and CAS timing parameters for a variant already created with the addcasvar command.
delcasvar	Deletes a CAS variant.
dspcasvar	Displays information about CAS variants for a given variant name.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.

addccs

To add a common channel signaling (CCS) channel (D channel) to a VISM card, use the **addccs** command.

```
addccs <line_number> <ds0_number> <LCN>
```

Syntax Description

<i>line_number</i>	Line number of the channel to be added in the range from 1–8.
<i>ds0_number</i>	DS0 number of the channel to be added. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
<i>LCN</i>	Logical channel number of the CCS channel to be added in the range from 131–510.

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

To use this command, you must select CCS signaling on the specified line with the **cnflnsig** command. When you execute this command, a value called ds0IfIndex is displayed. This value is used to identify the CCS channel in subsequent CCS-related commands.

Examples

The following example shows that a CCS D channel is added to line 1, DS0 20, logical channel number 200:

```
addccs 1 20 200
```

Related Commands

Command	Description
delccs	Deletes the association between a CCS (DS0) channel and its corresponding virtual channel.
dspccs	Displays the properties of a previously added CCS channel.

addcid

To add an AAL2 channel identifier (CID) on a VISM/VISM-PR card, use the **addcid** command.

```
addcid <endpt_num> <LCN> <cid_num> <codec_type> <profile_type> <profile_number>
|<voice_activity_detection> <vad_init_timer> <echo_cancellation>
<triple_redundancy_protection> <cas_signaling_transport>
<dtmf_tone_transport_as_AAL2> <ICS_enable> <pktPeriod>|
```

Syntax Description

<i>endpt_num</i>	Endpoint number which is to be related to the LCN/CID pair being added. <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144
<i>LCN</i>	Logical channel number (LCN) of the LCN/CID pair. Range is 131–510.
<i>cid_num</i>	Channel identification number of the LCN/CID pair. Range is 8–255.

<i>codec_type</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 • 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
<i>/profile_type/</i>	(Optional) Profile type to be used for the CID. <ul style="list-style-type: none"> • 1 = International Telecommunication Union (ITU) I.366.2 • 3 = Custom <p>Note If <i>profile_type</i> and <i>profile_number</i> argument values are both 1, you cannot turn VAD on.</p>
<i>/profile_number/</i>	(Optional) 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>/voice_activity_detection/</i>	(Optional) Value to enable or disable voice activity detection (VAD). <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default) <p>Note If <i>profile_type</i> and <i>profile_number</i> argument values are both 1, you cannot turn VAD on.</p>

<i>/vad_init_timer/</i>	(Optional) VAD initial (holdover) timer. Range is 250–65535 ms. Default is 250 ms.
<i>/echo_cancellation/</i>	(Optional) Value to enable or disable echo cancellation (ECAN). <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off
<i>/triple_redundancy_protection/</i>	(Optional) Value to enable or disable triple redundancy protection for type 3 packets. <ul style="list-style-type: none"> • 1 = On • 2 = Off <p>Note If you select 1 for this argument value, either the <i>cas_signaling_transport</i> or <i>dtmf_tone_transport_as_AAL2</i> argument value must be set to 1 (on).</p>
<i>/cas_signaling_transport/</i>	(Optional) Value to enable or disable channel associated signaling (CAS) transport as AAL2 type3 packets. <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off <p>This parameter does not affect any inbound signaling.</p>
<i>/dtmf_tone_transport_as_AAL2/</i>	(Optional) Value to enable or disable DTMF tone transport as AAL2 type 3 packets. It can be one of the following values: <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off <p>Note The <i>dtmf_tone_transport_as_AAL2</i> argument value must be set to 1 (on) when the <i>codec_type</i> is configured for codecs other than G.711 and G.726.</p>
<i>/ICS_enable/</i>	(Optional) Value to enable or disable idle code suppression (ICS) for the CID. <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
<i>/pktPeriod/</i>	(Optional) Packetization period (defined in milliseconds). This parameter applies only to G.729a compression. <ul style="list-style-type: none"> • 10 ms • 20 ms • 30 ms <p>Note The <i>pktPeriod</i> argument applies only to G.729a compression (<i>codec_type</i> argument value = 4). If you have selected any other compression value, ignore this argument.</p>

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

This command establishes a relationship between an endpoint and an LCN/CID pair. The endpoint is bound to a DS0 and the CID binds a DS0 to a logical channel—ensuring an endpoint-to-endpoint trunk. The following conditions must be met before you use this command:

- A previously added endpoint must exist.
- PVC must be of bearer type and provisioned using the **addcon** command.
- The current DSP template must contain the desired codec type.

This command can be used on an endpoint that has no associated CAS variant. However, if a CAS variant is specified for the endpoint, it must be Q.50 variant (file q50.o)—the only CAS variant supported by this command.

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

Examples

The following example creates a CID for endpoint 10, LCN 140, with a CID number of 10. The codec type is 2 (G.711a), profile type is 1 (ITU), profile number is 1 (ITU), VAD is 1 (on), VAD holdover is 300 milliseconds, type 3 redundancy is 1 (on), CAS transport is 1 (on), DTMF transport is 1 (on), idle code suppression is 1 (on) and the packet period is 10 milliseconds.

```
addcid 10 140 10 2 1 1 1 1 300 1 1 1 10
```

Related Commands

Command	Description
delcid	Deletes the association between an endpoint and an LCN/CID pair.
dspcid	Displays the argument values of an AAL2 CID on a VISM card.
dspcids	Displays all the AAL2 CIDs for a specified LCN on a VISM card.

addcon

To add a permanent virtual circuit (PVC) connection between a VISM card and any service module (SM) or PXM card, use the **addcon** command.

```
addcon <localVCI> <preference> <pvcType> <application> <PCR> <mastership>
|<remoteConnId> <serviceType> [<scr> <mbs>|]
```

Syntax Description

<i>localVCI</i>	Local virtual channel identifier (VCI) to be used for the connection. Range is 131–510. The value you enter for this argument is also used as the LCN.
<i>preference</i>	Preference level of the local VCI. <ul style="list-style-type: none"> • 1 = Primary • 2 = Secondary
<i>pvcType</i>	AAL type of connection. <ul style="list-style-type: none"> • 1 = AAL5 • 2 = AAL2 • 3 = AAL1
<i>application</i>	The connection's application. It can be one of the following values: <ul style="list-style-type: none"> • 1 = Control • 2 = Bearer • 3 = Signaling <p>Note If the connection is used for bearer and signaling, specify 2 for bearer.</p>
<i>PCR</i>	Peak cell rate (PCR) described in cells per second. Ranges are <ul style="list-style-type: none"> • 1–96000 for AAL5 bearer • 1–20000 for AAL5 control PVC • 1–50000 for T1 AAL2 PVCs • 1–60000 for E1 AAL2 PVCs • 1–400 for signaling PVCs in AAL2 trunking mode <p>Note If the <i>serviceType</i> argument is variable bit rate (VBR), the <i>PCR</i> argument value must be 15 or greater.</p>
<i>mastership</i>	Connection type. <ul style="list-style-type: none"> • 1 = Master • 2 = Slave (Default)
<i> remoteConnId </i>	(Optional) Remote connection identifier. Specify this argument with the following format: nodename.slot.port.vpi.vci <p>Note This argument is used only when the <i>mastership</i> argument is set to 1 (Master).</p>

<i>/serviceType/</i>	(Optional) Service type. It can be one of the following values: <ul style="list-style-type: none"> • 1 = Constant bit rate (CBR) • 2 = Variable bit rate real time (rt-VBR) • 3 = Variable bit rate non-real time (nrt-VBR) • 4 = rt-VBR3 • 5 = rt-VBR2 • 6 = nrt-VBR2 • 7 = nrt-VBR3 <p>Note Use value 7 for VISM-PR to RPM-PR connections.</p>
<i> scr/</i>	(Optional) Sustainable cell rate (SCR) defined in cells per second. Range is from 15 to the value you configured for the <i>PCR</i> argument value. <p>Note This argument value is required if the <i>serviceType</i> argument value is in the range 2–7.</p>
<i>/mbs </i>	(Optional) Maximum burst size (MBS)—maximum number of cells transmitted at the peak cell rate. Range is from 1 cell to 10 times the value you configured for the <i>scr</i> argument value. <p>Note This argument value is required if the <i>serviceType</i> argument value is in the range 2–7.</p>

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

You must execute the **addport** and **addrscrptn** commands before you use this command.

If you are using this command with the VoIP switching/trunking operating mode and dual PVCs, you must add the primary channel before the secondary channel.

If you are using this command with the AAL2 trunking operating mode, the *pvcType* argument value must be 1 (AAL5) for signaling and 2 (AAL2) for a bearer channel.

This command requires you to configure the PVC connections in the following ways for the different operating modes:

- VoIP switching/trunking operating mode **addcon** command configuration requirements:
 - One AAL5 PVC connection with an optional secondary AAL5 PVC connection.
- AAL2 trunking operating mode **addcon** command configuration requirements:
 - One AAL2 connection and up to 63 additional optional AAL2 connections to each remote location.
 - Up to eight AAL5 connections for CCS signaling across the trunk, if your application requires CCS.
- Switched AAL2 PVC operating mode **addcon** command configuration requirements:
 - One AAL2 connection.
 - One AAL5 connection for communication with the call agent and external DNS.

Examples

The following example adds a master connection as the primary channel using AAL2 for bearer traffic. The local VCI is 160 and the remote end is named node1 in slot 4, port 2 with a VPI/VCI of 223/223. The service type is CBR, the sustainable call rate is 500 cps, and the maximum burst rate is 6000 cells.

```
addcon 160 1 2 2 1000 1 node1.4.2.223.223 1 500 6000
```

After you execute this command, a typical local connection ID appears as node 1.5.1.0.160, where 160 is the added LCN.

Related Commands

Command	Description
cnfcalea	Enables or disables the CALEA feature on the current VISM card.
cnfcon	Configures a connection between a VISM card and an MGX 8000 Series platform PXM card.
cnfconprotect	Configures protection on a connection (PVC).
delcon	Deletes a connection (PVC) between a VISM card and a Cisco MGX 8000 Series platform PXM card.
dspcalea	Displays the CALEA feature configuration status of the current VISM card.
dspcon	Displays the parameters for a specified channel.
dspcons	Displays channel information for all configured connections on a VISM card.
dspvismparam	Displays the current VISM card configuration.

addconloop

To set a cellbus connection to local loopback state on a current card, use the **addconloop** command.

```
addconloop <LCN>
```

Syntax Description	<i>LCN</i> Logical channel number of the CCS channel to be added in the range 131–510.				
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	The following example places the channel number 132 in loopback state: <pre>addconloop 132</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>delconloop</td> <td>Deletes a local loopback state on a VISM line.</td> </tr> </tbody> </table>	Command	Description	delconloop	Deletes a local loopback state on a VISM line.
Command	Description				
delconloop	Deletes a local loopback state on a VISM line.				

addn

To add a domain name (call agent name, TFTP server name, domain name server (DNS) name, or announcement server name) and optionally configure the resolution type of the domain name, use the **addn** command.

```
addn <mg_domain_num> <mg_domain_name> [/<Resolution_Type>/]
```

Syntax Description

<i>mg_domain_num</i>	Domain number used to identify the domain in the range 1–11.
<i>mg_domain_name</i>	Call agent name, which is a text string of 1 to 64 alphanumeric characters.
<i>/Resolution_Type/</i>	(Optional) Resolution type to configure for the specified domain name. It can be one of the following values: <ul style="list-style-type: none"> • 1 = Internal only (Default). You must statically provision all IP addresses on the VISM card for the domain name. The VISM card does not resolve the domain name using an external domain name server (DNS). • 2 = External only. The VISM card attempts to resolve the domain name using an external DNS. Statistically configured IP addresses for this domain name are not used. • 3 = Internal first. The VISM card attempts to resolve the domain name using an external DNS. The VISM card uses the statistically provisioned IP addresses for this domain name before using IP addresses from external resolution. • 4 = External first. The VISM card attempts to resolve the domain name using an external DNS. The VISM card uses IP addresses from external resolution before using the statistically provisioned IP addresses.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that a call agent domain name, main, with a domain number of 3 is assigned the internal first resolution type (3):

```
addn 3 main 3
```

Related Commands

Command	Description
addnip	Adds the IP addresses for a domain name that you added by using the addn command.
cnfdn	Configures the resolution type of a specified domain name.
cnfdnssrvr	Designates a domain name as a DNS.
deldn	Deletes a domain name.

Command	Description
deldnip	Deletes a statistically provisioned IP address of a domain name.
dspdn	Displays the argument values of a call agent's domain number.
dspdnallips	Displays all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card.
dspdnips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dspdns	Displays the configuration data of all domain names of a call agent.
dspdnssrvr	Displays the domain name of the configured DNS of the current VISM card.

addnip

To add the IP addresses for a domain name that you added by using the **adddn** command, use the **addnip** command.

```
addnip <Resolution_index> <domain_name> <IP_address> <preference>
```

Syntax Description

<i>Resolution_index</i>	Resolution number of the domain name. Range is 1–88.
<i>domain_name</i>	Call agent name, which is a text string of 1 to 64 alphanumeric characters.
<i>IP_address</i>	IP address which corresponds to the <i>domain_name</i> argument value in the following format: nnn.nnn.nnn.nnn.
<i>preference</i>	IP address resolution preference order in the range from 1 (highest) to 8 (lowest).
Note	The preference order must be unique for all IP addresses in the call agent name you specify with the <i>domain_name</i> argument.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that resolution number 22 is configured for domain name callagent35, with IP address 209.165.200.224, and an address resolution preference order of 7 (low):

```
addnip 22 callagent35 209.165.200.224 7
```

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
cnfdn	Configures the resolution type of a specified domain name.
cnfdnssrvr	Designates a domain name as a DNS.
deldn	Deletes a domain name.
deldnip	Deletes a statistically provisioned IP address of a domain name.
dspdnallips	Displays all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card.
dspdnips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dspdns	Displays the configuration data of all domain names of a call agent.
dspdnssrvr	Displays the domain name of the configured DNS of the current VISM card.

addualtonedet

To add a dual tone frequency tone, use the **addualtonedet** command.

```
addualtonedet <dttoneId> <dteventId> <dtfreq1> <dtfreq2> <onCadence> <offCadence>
[<cadMatch> <maxFreqDev> <maxPwr> <minPwr> <pwrTwist> <maxDelay> <minOnCad>
<maxOffCad>]
```

Syntax Description

<i>dttoneId</i>	Dual tone ID. Range is 1–10. You can add up to 10 tones.
<i>dteventId</i>	Dual tone event ID. Range is 0–255.
<i>dtfreq1</i>	Dual tone first frequency. Range is 280–3800 Hz.
<i>dtfreq2</i>	Dual tone second frequency. Range is 0–3800 Hz.
<i>onCadence</i>	Time duration in the tone cycle when the tone is played. Range is <i>minOnCad</i> –5000 ms in units of 10 ms.
<i>offCadence</i>	Duration of silence in the tone cycle. Range is <i>maxOffCad</i> –5000 ms in units of 10 ms.
<i>/cadMatch/</i>	(Optional) Number of cadence cycles to match before reporting the tone. Range is 0–6 matches.
<i>/maxFreqDev/</i>	(Optional) Maximum frequency deviation of the dual tone. Range is 10–125 Hz.
<i>/maxPwr/</i>	(Optional) Maximum power level of the dual tone. Range is absolute values of 0–30 db.
<i>/minPwr/</i>	(Optional) Minimum power level of the dual tone. Range is 10–35 db.
<i>/pwrTwist/</i>	(Optional) Power twist in the dual tone. Range is 0–15 db.
<i>/maxDelay/</i>	(Optional) Maximum delay in the dual tone. Range is 0–100 ms in units of 10 ms.
<i>/minOnCad/</i>	(Optional) Minimum on-time duration in the tone cycle. Range is 3–100 ms in units of 10 ms.
<i>/maxOffCad/</i>	(Optional) Maximum off-time duration. Range is 5–5000 ms in units of 10 ms.

Command Modes

VoIP switching/VoIP trunking

Usage Guidelines

Follow standard CLI procedures for this command.



Note

This command is only applicable to the VISM-PR card.

Examples

The following example shows adding a ringback tone with default values.

```
addualtonedet 1 70 460 0 2000 4000 1 30 3 35 10 100 200 4500
```

For more information on the dual tones default values, see [“Default Values” section on page 1-16 of Chapter 1, “New Features in Release 3.2.”](#)

Related Commands

Command	Description
deldualtonedet	Deletes a dual frequency tone.
dspdualtonedet	Displays a dual tone configuration.

addendpt

To add an endpoint on a line, use the **addendpt** command.

```
addendpt <endpt_num> <dsl_num> <ds0_num>
```

Syntax Description

<i>endpt_num</i>	Endpoint number. Ranges are <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1
<i>dsl_num</i>	Physical line number in the range 1–8.
<i>ds0_num</i>	DS0 configured for the <i>endpt_num</i> value. Ranges are <ul style="list-style-type: none"> • 1–24 for T1 lines • 1–31 for non-CAS E1 lines • 1–15, 17–31 for CAS E1 lines <p>For VISM E1 cards, 16 is preallocated as the CAS signaling channel.</p> <p>Note If the application requires CAS signaling, issue the cnflnsig command before adding the endpoints.</p>

Command Modes

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

Usage Guidelines

The endpoint on VISM is a logical port that consists of one DS0. The argument values entered in this command create an endpoint ID (*endpt_num*) which is required by the call agent for sending the xGCP Create Connection command (CRCX) to a VISM card. You can only configure bearer DS0s as endpoints to a previously added line.

**Note**

The endpoint number is not equal to the DS0 number of the associated time slot. For example, endpoint 1 could be associated with DS011.

If your application requires the VoIP switching/trunking operating mode, you must add the IP address for VISM with the **cnfvismip** command before endpoints can be added.

This command sends an RSIP message to each associated call agent indicating that the endpoint is in service.

Examples

The following example adds an endpoint with the number 120, on line 5, DS0 number 5:

```
addendpt 120 5 5
```

Related Commands

Command	Description
addendpts	Adds multiple sequential endpoints to a VISM card.
delendpt	Deletes a specified endpoint on a VISM card.
dspendpt	Displays information about a specified endpoint on a VISM card.
dspendpts	Displays information about all the endpoints on a VISM card.

addendptloop

To place an endpoint in a loopback condition in the TDM direction, use the **addendptloop** command.

addendptloop *<endpt-num>*

Syntax Description	<i>endpt_num</i>	Endpoint number. Ranges are
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example adds an endpoint loopback to endpoint 120:

```
addendptloop 120
```

Related Commands	Command	Description
	delendptloop	Takes an endpoint out of a loopback condition.

addendpts

To add multiple consecutive number of endpoints with a single command, use the **addendpts** command.

```
addendpts <endpt_num> <dsl_num> <ds0_num> <endpts_num>
```

Syntax Description		
	<i>endpt_num</i>	First endpoint number of a range of consecutive endpoints. Ranges are <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1
	<i>dsl_num</i>	Line number to which the endpoints are added. Range is 1–8.

<i>ds0_num</i>	<p>DS0 number to which the endpoints are added. Ranges are</p> <ul style="list-style-type: none"> • 1–24 for T1 lines • 1–31 for non-CAS E1 lines • 1–15, 17–31 for CAS E1 lines <p>For VISM E1 cards, 16 is preallocated as the CAS signaling channel.</p> <p>Note If the application requires CAS signaling, issue the cnflnsig command before adding the endpoints.</p>
----------------	---

<i>endpts_num</i>	<p>Number of endpoints you want to add. Ranges are</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1
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Command Modes

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

Usage Guidelines

The **addendpts** command uses a specified number of consecutive endpoints starting at a specified endpoint number, line number, and DS0 number. As endpoints are added, the command uses the next available (not added) endpoint numbers and DS0s. The command does not wrap around DS0 and endpoint numbers.

**Note**

If you are running a VoIP application, you must use the **cnfvismip** command before you can add endpoints.

**Note**

The endpoint number is not equal to the DS0 number of the associated time slot. For example, endpoint 1 could be associated with DS011.

Before you add endpoints with this command, ensure that enough lines and DS0s exist. If you attempt to add more endpoints than are available, only the available endpoints are added.

For example, if T1 line 1 is the only line enabled and you attempt to add 25 endpoints, only 24 endpoints are added. Your terminal display shows the actual number of endpoints added.

This command sends an RSIP message to each associated call agent indicating that the endpoints are in service.

Examples

The following example shows that 12 consecutive endpoints are added to line 1, starting at endpoint number 6, DS0 number 12:

```
addendpts 6 1 12 12
```

Related Commands

Command	Description
delendpts	Deletes a consecutive number of endpoints on the VISM card.
dspendpts	Displays information about all endpoints on a VISM card.

addlapd

To add a Link Access Protocol D channel (LAPD) from a specified DS0 to a VISM card, use the **addlapd** command.

```
addlapd <line_number> <ds0_number> [/<lapd_side> <lapd_application_type>]
```

Syntax Description

<i>line_number</i>	Line number of the channel to which you want to add an ISDN D channel. Range is 1–8.
<i>ds0_number</i>	DS0 number of the channel to which you want to add an ISDN D channel. Ranges are <ul style="list-style-type: none"> • 1–24 for T1 lines • 1–31 for E1 lines
<i>/lapd_side/</i>	(Optional) The side of the LAPD link. Values are <ul style="list-style-type: none"> • 1 = Network (Default) • 2 = User
<i>/lapd_application_type/</i>	(Optional) Application type of the LAPD ISDN D channel. Values are <ul style="list-style-type: none"> • 1 = PRI (Default) • 2 = GR-303 (currently unsupported)

Command Modes

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

Usage Guidelines

Before using this command, complete the following tasks:

- Specify the line as CCS.
- Ensure that the DS0 is available.
- Create a session group and session to a call agent.

Use the **addlapd** command when the specified channel is backhauled to the call agent.

Examples

The following example shows that an ISDN PRI D channel is added to line 2 and DS0 7 on the network side:

```
addlapd 2 7 1 1
```

Related Commands

Command	Description
dellapd	Deletes an LAPD.
dsplapd	Displays information about an LAPD.
dsplapds	Displays information about all LAPDs.

addlapdtrunk

To add a Link Access Protocol D channel (LAPD) trunk to a specific line, use the **addlapdtrunk** command.

```
addlapdtrunk <Line_num> <Lapd_Rudp_Index>
```

Syntax Description

<i>Line_num</i>	Line number of the T1 or E1 line in the range 1–8.
<i>Lapd_Rudp_Index</i>	LAPD Reliable User Data Protocol (RUDP) number in the range 1–64.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the LAPD RUDP number 1 is added to line number 2:

```
addlapdtrunk 2 1
```

Related Commands

Command	Description
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudp trunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clr rtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudp trunk rmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
del rtpcon	Deletes a static RTP VoIP trunking connection.
del rudp trunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsprt rtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsprt rtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprt rtpcons	Displays the configuration data of all static RTP VoIP trunking connections.

Command	Description
dsprudp trunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudp trunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

addln

To add a T1 or E1 line to a VISM card, use the **addln** command.

```
addln <line_number>
```

Syntax Description

line_number Line number of the T1 or E1 line to be added. Range is 1–8.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that line number 1 is added to a VISM card:

```
addln 1
```

Related Commands

Command	Description
cnfln	Configures line characteristics for a specified line.
delln	Deletes a DS1 line on a VISM card.
dspln	Displays the characteristics of a specified line.

addInloop

To set a specified line of the current card to the local loopback state, use the **addInloop** command.

```
addInloop <line_number>
```

Syntax Description

line_number Line number of the T1 or E1 line to be added. Range is 1–8.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.



Note

The VISM CLI has no specific command for setting a line to a remote loopback state. To set a line to remote loopback state, use the **cnfbert** command on the PXM1, PXM1E, and PXM45 cards. Refer to MGX 8000 Series platform command line interface guides for more information.

Examples

The following example adds a local line loopback state to line 1:

```
addInloop 1
```

Related Commands

Command	Description
dellInloop	Deletes a T1 or E1 local line loopback state.

addmgc

To add a Media Gateway Controller (MGC)—also known as a call agent—use the **addmgc** command.

```
addmgc <mgcNumber> <DomainName>
```

Syntax Description

<i>mgcNumber</i>	Media Gateway Controller (MGC) number in the range from 1 to 8.
<i>DomainName</i>	Domain name. Maximum length is 64 characters.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example adds an MGC with the name mgc1:

```
mgx8850.1.28.VISM8.a> addmgc 1 mgc1
```

Related Commands

Command	Description
addmgc	Adds a call agent (MGC).
delmgc	Deletes a specified MGC.
dspmgc	Displays the configuration data of a specified MGC.
dspmgc	Displays the configuration data of all configured call agents.

addmgcgrpentry

To configure a call agent as part of a media gateway controller (MGC) redundancy group and assign a priority value for the call agent, use the **addmgcgrpentry** command.

addmgcgrpentry <Red_Group_Num> <mgcRedGrpMgcNum> <mgcRedGrpPref>

Syntax Description

<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>mgcRedGrpMgcNum</i>	Call agent identification number. Range is 1–8.
<i>mgcRedGrpPref</i>	Call agent preference value—The preference of the MGC within the group. Range is 1 (highest) to 8 (lowest). Default is 1.

Command Modes

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

Usage Guidelines

You must add a call agent to a call agent redundancy group regardless of the absence of additional call agents in the redundancy group.

Use the **dspmgcgrpparams** command to verify call agent redundancy group configuration data.

Examples

The following example shows that call agent redundancy group number 1 is configured with the call agent number 5, and assigned a priority level of 3:

```
addmgcgrpentry 1 5 3
```

Related Commands

Command	Description
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.

Command	Description
dspmgegrps	Displays all configured call agent redundancy groups.
dsprcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

addmgcgrpprotocol

To associate a call agent redundancy group with a gateway control protocol (xGCP) and configure call agent group protocol control data, use the **addmgcgrpprotocol** command.

```
addmgcgrpprotocol <Red_Group_Num> <protocol_number> [/<Qrntn_Persist> <Qrntn_Def>
<Sign_OnOff> <Prov_Resp> <RspAck_Attr> <Disc_Proc> <Cancel_Graceful>]
```

Syntax Description	
<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>protocol_number</i>	Protocol number. Values are <ul style="list-style-type: none"> • 1 = MGCP 0.1 • 2 = SGCP 1.1+ • 3 = SRCP 1.0.2 • 4 = SGCP 1.5 • 5 = MGCP 1.0 • 6 = TGCP 1.0
<i>/Qrntn_Persist/</i>	(Optional) Sets the quarantine handling method for persistent events. Values are <ul style="list-style-type: none"> • 1 = Quarantine persistent events (Default) • 2 = Do not quarantine persistent events
<i>/Qrntn_Def/</i>	(Optional) Sets the default quarantine handling method for each protocol. Values are <ul style="list-style-type: none"> • 1 = Step, process (Default for MGCP 1.0 and TGCP 1.0) • 2 = Step, discard (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5) • 3 = Loop, process • 4 = Loop, discard <p>Note Step means one notification command is generated per notification request. Loop means multiple notification commands are generated per notification request.</p>
<i>/Sign_OnOff/</i>	(Optional) Value to delete events. <ul style="list-style-type: none"> • 1 = Delete events from the previous list which are not present in the current list. (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5) • 2 = Delete events from the previous list, only if the event is present in the current list with a hyphen (-) as the parameter. (Default for MGCP 1.0 and TGCP 1.0)
<i>/Prov_Resp/</i>	(Optional) Value to enable or disable the sending of a provisional response. <ul style="list-style-type: none"> • 1 = On (Default for MGCP 1.0 and TGCP 1.0) • 2 = Off (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)

<i>/RspAck_Attr/</i>	(Optional) Value to enable or disable sending a response acknowledgment. <ul style="list-style-type: none"> 1 = On (Default for MGCP 1.0 and TGCP 1.0) 2 = Off (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<i>/Disc_Proc/</i>	(Optional) Value to enable or disable the disconnect method, which indicates that the endpoint has become disconnected and is now trying to establish connectivity. <ul style="list-style-type: none"> 1 = On (Default for MGCP 1.0 and TGCP 1.0) 2 = Off (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<i>/Cancel_Graceful/</i>	(Optional) Value to enable or disable VISM cancelling a previously issued graceful restart in progress command. <ul style="list-style-type: none"> 1 = On (Default for MGCP 1.0 and TGCP 1.0) 2 = Off (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)

Command Modes

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

Usage Guidelines

This command allows you to add multiple protocols to the same redundancy group.

Examples

The following example shows that call agent redundancy group number 3 is assigned gateway control protocol number 5, MGC 1.0:

```
addmgcgrpprotocol 3 5
```

Related Commands

Command	Description
addmgcgrppentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
cnfdisctimers	Specifies the wait delay times for the disconnected procedure, restart in progress command—initial, minimum, and maximum timer values.
cnfmgcgrppentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfmgcgrpprotocol	Configures call agent group protocol data.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrppentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspdsectimers	Displays the Restart in Progress command disconnect type method wait delay times.

Command	Description
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspmgcprps	Displays all configured call agent redundancy groups.
dspsrcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

addport

To add a virtual port between the VISM and PXM cards, use the **addport** command.

addport

Syntax Description This command has no arguments.

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

Usage Guidelines This command automatically associates the VISM card and the virtual port with the MGX 8000 Series platform.



Note

If the VISM card is reset after executing this command but before executing the **addrscrptn** command, an error message is displayed. The error has no effect on the system and can be ignored.

When you execute this command, the port number is set to one of the following values:

- 1—for PXM1 cards
- 255—for PXM1E and PXM45 cards

Examples The following example shows that a virtual port has been added between the VISM and PXM cards:

```
addport
```

Related Commands	Command	Description
	delport	Deletes a VISM port on the packet network side.

addrscrtn

To add a resource partition for a virtual port, use the **addrscrtn** command.

```
addrscrtn <controller_id>
```

Syntax Description	<p><i>controller_id</i> Controller identification number to which the resource partition is added. Range is 1–255.</p> <ul style="list-style-type: none"> • 1—for a PXM1 card • 2—for a PXM1E or PXM45 card 						
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking						
Usage Guidelines	<p>You must configure a virtual port with the addport command before you use this command.</p> <p>If you are using a PXM1 card, this command adds an entry with resource partition number 1. If you are using a PXM1E or PXM45 card, this command adds the entries with resource partition number 2.</p>						
Examples	<p>The following example shows that a resource partition is added to controller number 2:</p> <pre>addrscrtn 2</pre>						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>delrscrtn</td> <td>Deletes a resource partition.</td> </tr> <tr> <td>dsprscrtn</td> <td>Displays information about a resource partition.</td> </tr> </tbody> </table>	Command	Description	delrscrtn	Deletes a resource partition.	dsprscrtn	Displays information about a resource partition.
Command	Description						
delrscrtn	Deletes a resource partition.						
dsprscrtn	Displays information about a resource partition.						

addrtpcn

To add a static Real-Time Transport Protocol (RTP) VoIP trunking connection, use the **addrtpcn** command.

```
addrtpcn <rtp_conn_index> <rtp_endpt-num> <rtp_local_port> <rtp_remote_port>
<rtp_remote_GW_IP_Addr> <voice_codec_type> |<voice_packet_period> <bearer_prec>
<bearer_tos> <conn_mode> <ecan> <VAD_OnOff> <VAD_Timer> <CAS_Transport>
<DTMF_Transport> <ICS> <payload>|
```

Syntax Description

<i>rtp_conn_index</i>	Connection identification number. It can be in the range from 1 to 248.
<i>rtp_endpt-num</i>	Endpoint number. It can be a value from one of the following ranges: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, range from 1 to 192 – For VISM-PR E1, range from 1 to 248
<i>rtp_local_port</i>	Static RTP local port number. It can be an even number in the range from 49648 to 50142. Note The odd numbers within the <i>rtp_local_port</i> range are reserved for Real-Time Conferencing Protocol (RTCP) ports.
<i>rtp_remote_port</i>	Static RTP remote port number. It can be an even number in the range from 16384 to 50142. Note The odd numbers within the <i>rtp_remote_port</i> range are reserved for RTCP ports.
<i>rtp_remote_GW_IP_Addr</i>	IP address of the remote VISM card, in dotted decimal format (nnn.nnn.nnn.nnn).

<i>voice_codec_type</i>	The type of coding/decoding to be performed on the data stream. It can be one of the following values: <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)
<i>voice_packet_period</i>	(Optional) Packetization period (defined in milliseconds). It can be one of the following values: <ul style="list-style-type: none"> • 10 • 20 • 30 • 40 • 60
<i>bearer_prec</i>	(Optional) Bearer precedence. It can be in the range from 0 to 7. (Default = 5)
<i>bearer_tos</i>	(Optional) Bearer type of service (ToS). It can be one of the following values: <ul style="list-style-type: none"> • 0 (Default) • 1 • 2 • 4 • 8
<i>conn_mode</i>	(Optional) Connection mode. It can be one of the following values: <ul style="list-style-type: none"> • 1 = VISM sends packets • 2 = VISM receives packets • 3 = VISM sends and receives packets (Default) • 4 = Inactive; VISM does not send or receive packets
<i>ecan</i>	(Optional) Enables or disables echo cancellation (ECAN). It can be one of the following values: <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off

<i>VAD_OnOff</i>	(Optional) Enables or disables voice activity detection (VAD). It can be one of the following values: <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default)
<i>VAD_Timer</i>	(Optional) The VAD holdover timer (defined in milliseconds) in the range from 250 to 65535.
<i>CAS_Transport</i>	(Optional) Enables or disables CAS signaling transport. It can be one of the following values: <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off
<i>DTMF_Transport</i>	(Optional) Enables or disables DTMF tone transport. It can be one of the following values: <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off <p>Note The <i>DTMF_Transport</i> argument value must be set to 1 (on) when the <i>voice_codec_type</i> is configured for codecs other than G.711 and G.726.</p>
<i>ICS</i>	(Optional) Enables or disables idle code suppression (ICS) for the channel identifier (CID). It can be one of the following values: <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default)
<i>payload</i>	(Optional) Assigns the payload type. It can be in the range from 0 to 255. Default = 256. <p>Note If you do not use the <i>payload</i> argument to assign the payload type, the dynamic payload is set to the static value of the DSP codec type.</p>

Command Modes

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

Usage Guidelines

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

Examples

The following example shows that the RTP trunking connection 26 is added and configured with endpoint number 200, static RTP local port number 50000, static RTP remote port number 49648, remote IP address 209.165.200.224, G.726/32 codec type, 20-ms packetization period, bearer precedence of 3, bearer ToS of 1, VISM sends and receives packets, ECAN and VAD enabled, 400-ms VAD holdover time, CAS transportation enabled, DTMF tone transportation enabled, idle code suppression for CID enabled, and the 255 payload type:

```
addrtpon 26 200 50000 49648 209.165.200.224 3 20 3 1 3 1 1 400 1 1 1 255
```

Related Commands	Command	Description
	addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
	addrudp trunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
	clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
	cnfdynamicpayload	Enables or disables the dynamic payload on the current VISM card.
	cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
	cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
	cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
	cnfrudp trunk rmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
	dellapdtrunk	Deletes an LAPD configured line.
	delrtpcon	Deletes a static RTP VoIP trunking connection.
	delrudp trunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
	dspdynamicpayload	Displays the card level configuration of dynamic payload on the current VISM card.
	dsplapd	Displays data about an LAPD.
	dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
	dsplapdtrunks	Displays the configuration data of all LAPD trunks.
	dsprtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
	dsprtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
	dsprtpconnstat	Displays the RTP connection statistics for a specified endpoint.
	dsprtpcons	Displays the configuration data of all static RTP VoIP trunking connections.
	dsprudp trunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
	dsprudp trunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

addrudptrunk

To add an ISDN PRI backhaul Reliable User Datagram Protocol (RUDP) session for a Link Access Protocol D channel (LAPD) trunk connection, use the **addrudptrunk** command.

```
addrudptrunk <session_number> <local_port> <remote_port> <Remote_Gw_IP>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>local_port</i>	Local port number. Range is 1124–49151.
<i>remote_port</i>	Remote port number. Range is 1124–65535.
<i>Remote_Gw_IP</i>	IP address of the remote VISM card, in dotted decimal format (nnn.nnn.nnn.nnn).

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the ISDN PRI backhaul RUDP session number 40 is added to the LAPD trunk connection with local port 1024, remote port 2006, and remote IP address 209.165.200.244:

```
addrudptrunk 40 1024 2006 209.165.200.244
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
clrtrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtppcon	Deletes a static RTP VoIP trunking connection.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.

Command	Description
dsrtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsrtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsrtpcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsrudprtrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsrudprtrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

addses

To add a PRI backhaul session between a VISM card and a call agent, use the **addses** command.

```
addses <session_number> <group_number> <priority> <local_port> <remote_port>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64. Note Up to 64 sessions can be created in a session group.
<i>group_number</i>	Identifying session group number to which the session is added in the range 1–16. Note Currently, only group 1 is supported.
<i>priority</i>	Priority level determines which session becomes active if a session fails within the same group. Range is 1 (highest) to 4 (lowest).
<i>local_port</i>	Local port number is the VISM port number used for the session. Range is 1124–49151.
<i>remote_port</i>	Remote port number is the call agent port number used for the session. Range is 1124–65535.

Command Modes

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

Usage Guidelines

Before you use this command, add a session group for the session.

Examples

The following example shows that PRI backhaul session number 4 is added to session group 1 between the VISM card and the callagent1 call agent:

```
addses 4 1 2 1124 1124
```

Related Commands

Command	Description
delses	Deletes a PRI backhaul session.
dspses	Displays information about a PRI backhaul session.
dspsess	Displays information about all PRI backhaul sessions.

addsesgrp

To add a PRI backhaul session group between a VISM card and a call agent, use the **addsesgrp** command.

```
addsesgrp <group_number> <set_number> <mgc_name>
```

Syntax Description

group_number Identifying session group number in the range 1–16.

set_number Set number in the range 1–8.

Note Only session set number 1 is supported.

mgc_name Domain name of the call agent, a text string 1–64 alphanumeric characters.

Command Modes

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

Usage Guidelines

Specify the following parameters:

- The set number to which the group belongs.
- The call agent that the group sessions are to be associated.

Examples

The following example shows that the PRI backhaul session group 2 is added between the VISM card and the Jack call agent to session set number 1:

```
addsesgrp 2 1 Jack
```

Related Commands

Command	Description
delsesgrp	Deletes a PRI backhaul session group.

addseset

To add a PRI backhaul session set between a VISM card and a call agent, use the **addseset** command.

```
addseset <set_number> <fault_tolerant>
```

Syntax Description

<i>set_number</i>	Set number in the range from 1 to 16. Note Only session set number 1 is supported.
<i>fault_tolerant</i>	Enable or disables fault tolerance. Values are <ul style="list-style-type: none"> • 1 = Fault tolerance • 2 = No fault tolerance

Command Modes

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

Usage Guidelines

The *set_number* argument value must be set to 1.

Examples

The following example shows that the PRI backhaul session set number 1 is added between a VISM card and a call agent:

```
addseset 1
```

Related Commands

Command	Description
delseset	Deletes a PRI backhaul session set.

addtoneplan

To add a provisional tone plan to the current VISM card, use the **addtoneplan** command in the VoIP switching/trunking and switched AAL2 PVC operating modes.

```
addtoneplan <tone_plan_region> <tone_plan_version> tone_plan_file>
```

Syntax Description

<i>tone_plan_region</i>	Tone plan country or region which you want to add to VISM. It can be in the range from 1 to 64 alphanumeric characters and can contain underscores (_). This value is case sensitive.
<i>tone_plan_version</i>	Tone plan version number of the tone plan country or region you are adding to VISM. It can be in the range from 1 to 65535.
<i>tone_plan_file</i>	Tone plan file name (names are located in the TFTP server /TFTPBOOT directory). It can be in the range from 1 to 32 alphanumeric characters and can contain underscores (_), dashes (-), and dots (.).

Command Modes

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

Usage Guidelines

Before using the **addtoneplan** command, complete the following steps before using this command:

- Step 1** Create a new tone plan using the format below.
- Step 2** Place the new tone plan in the TFTP server /TFTPBOOT directory.
- Step 3** Add the TFTP server domain name to the VISM card by entering the **adddn** command.
- Step 4** Add the IP address of the TFTP server domain name by entering the **addnip** command.
- Step 5** Configure the parameters of the TFTP server domain name by entering the **cnftftpdn** command.



Note

Provisional tone plans are those that you create. Built-in, or preconfigured, tone plans cannot be added with this command. Built-in tone plans are added to the system automatically upon boot up.

You can add a maximum of 32 provisional tone plans to the system. You must create provisional tone plan files with the following format:

```

////////////////////////////////////
// Comments : Text after '/' through the end of the line are ignored.
////////////////////////////////////
System Section
////////////////////////////////////
version 2
description "Tone Plan Defined for CompanyX"
////////////////////////////////////
Tones Section
////////////////////////////////////
dial_tone 1, 2, 3, 4, 5, 6, 7
busy_tone 1, 2, 3, 4, 5, 6, 7, 8, 9, 0
stutter_tone 1, 2, 3
dtmf_digit 1, 2

```

- **File name**—The name of the tone plan file is restricted to 64 characters.
- **System Section** are mandatory keywords. Use this section to define tone plans. This section can contain only the following two lines:
 - *version*—Version 1 contains the following tones: dial_tone stutter_tone, busy_tone, fast_busy_tone, ring_back_tone, and alert_tone. Version 2 includes the format of version 1 with additional syntax items for defining wireless tones.
 - *description*—Provide a general description of the tone plan.
- **Tone Section** are mandatory keywords. Use this section to define the call progress tones. Specify each tone on a separate line, and use white spaces as delimiters.

The syntax of the tone plan definition file must be specified in the following order and on the same line:

```

<tone_name> <number_of_freq_components> <amp_of_first> <amp_of_second> <timeout>
<freq_1st_cadence1> <freq_2nd_cadence1> <ontime_cadence1> <offtime_cadence1>
<repeat_count_cadence1>
[<freq_1st_cadence2> <freq_2nd_cadence2> <ontime_cadence2> <offtime_cadence2>
<repeat_count_cadence2>]
[<freq_1st_cadence3> <freq_2nd_cadence3> <ontime_cadence3> <offtime_cadence3>
<repeat_count_cadence3>]
[<freq_1st_cadence4> <freq_2nd_cadence4> <ontime_cadence4> <offtime_cadence4>
<repeat_count_cadence4>]

```

Table 7-9 lists the mandatory values for defining the call tones.

Table 7-9 Mandatory Parameters for Defining Tones

Syntax Item	Description
<i>tone_name</i>	<p>Identifies the tone as one of the following values:</p> <ul style="list-style-type: none"> • dial_tone • stutter_tone • ring_back_tone • busy_tone • fast_busy_tone • alert_tone • intercept_tone • confirmation_tone • answer_tone • call_waiting_tone • recall_dial_tone • berge_in_tone • ppc_insuffice_tone • ppc_warn1_tone • ppc_warn2_tone • ppc_warn3_tone • ppc_disc_tone • ppc_redirect_tone • all_tone_off • pip_tone • warning_tone • denial_tone • custom1_tone • custom2_tone • custom3_tone <ul style="list-style-type: none"> • custom4_tone • custom5_tone • custom6_tone • custom7_tone • custom8_tone • custom9_tone • custom10_tone • custom11_tone • custom12_tone • custom13_tone • custom14_tone • custom15_tone • custom16_tone • custom17_tone • custom18_tone • custom19_tone • custom20_tone • custom21_tone • custom22_tone • custom23_tone • custom24_tone • custom25_tone • custom26_tone • custom27_tone • custom28_tone
<i>number_of_freq_components</i>	<p>Number of frequency components as one of the following values:</p> <ul style="list-style-type: none"> • 1 • 2

Table 7-9 Mandatory Parameters for Defining Tones (continued)

Syntax Item	Description
<i>amp_of_first</i> ¹	Peak-to-peak amplitude of the first frequency according to the following formula: $46348 * 10$ to the power of (dBm/20) Value range is 0–65535.
<i>amp_of_second</i> ¹	Peak-to-peak amplitude of the second frequency according to the following formula: $46348 * 10$ to the power of (dBm/20) Value range is 0–65535.
<i>timeout</i>	Time when tone generation is stopped. Range is 0–65535 msec. A value of 0 means no timeout, and thus the tone is stopped explicitly by call agent.
<i>freq_1st_cadence1</i>	First frequency in cadence 1. Range is 0–3999 Hz.
<i>freq_2nd_cadence1</i>	Second frequency in cadence 1. Range is 0–3999 Hz.
<i>ontime_cadence1</i>	First on time that the tone plays in cadence 1. Range is 0–65535 ms.
<i>offtime_cadence1</i>	First off time that the tone does not play in cadence 1. Range is 0–65535 ms.
<i>repeat_count_cadence1</i>	Repeat count for cadence 1. Range is 1–65535 ms.

1. To specify amplitudes of DTMF and MFR1 tones, you must use the following syntax: **dtmf_digit** amp-low amp-high or **mf_r1_digit** amp-low amp-high. The amp-low value = low group frequency. The amp-high value = high group frequency.



Note If you do not specify the amplitudes of DTMF or MFR1 tones, the default value of 16384 (–9 dBm) is applied.

Table 7-10 describes the optional parameters you can use to define the tones.

Table 7-10 Optional Parameters for Defining Tones

Syntax Item	Description
<i>freq_1st_cadence2</i>	First frequency in cadence 2. Range is 0–3999 Hz.
<i>freq_2nd_cadence2</i>	Second frequency in cadence 2. Range is 0–3999 Hz.
<i>ontime_cadence2</i>	First on time that the tone plays in cadence 2. Range is 0–65535 ms.
<i>offtime_cadence2</i>	First off time that the tone does not play in cadence 2. Range is 0–65535 ms.
<i>repeat_count_cadence2</i>	Repeat count for cadence 2. Range is 1–65535 ms.
<i>freq_1st_cadence3</i>	First frequency in cadence 3. Range is 0–3999 Hz.
<i>freq_2nd_cadence3</i>	Second frequency in cadence 3. Range is 0–3999 Hz.
<i>ontime_cadence3</i>	First on time that the tone plays in cadence 3. Range is 0–65535 ms.

Table 7-10 Optional Parameters for Defining Tones (continued)

Syntax Item	Description
<i>offtime_cadence3</i>	First off time that the tone does not play in cadence 3. Range is 0–65535 ms.
<i>repeat_count_cadence3</i>	Repeat count for cadence 3. Range is 1–65535 ms.
<i>freq_1st_cadence4</i>	First frequency in cadence 4. Range is 0–3999 Hz.
<i>freq_2nd_cadence4</i>	Second frequency in cadence 4. Range is 0–3999 Hz.
<i>ontime_cadence4</i>	First on time that the tone plays in cadence 4. Range is 0–65535 ms.
<i>offtime_cadence4</i>	First off time that the tone does not play in cadence 4. Range is 0–65535 ms.
<i>repeat_count_cadence4</i>	Repeat count for cadence 4. Range is 1–65535 ms.

Examples

The following example shows that the tone plan file name `singp_3`, with region `singapore` and version number `11`, is added to the current VISM card:

```
addtoneplan singapore 11 singp_3
```

The appropriate tone plan file, with associated region and version, is downloaded, parsed, and stored in memory.

Related Commands

Command	Description
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimeout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimeout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

addxgcppersistevt

To add persistent xGCP (various gateway control protocol) events, use the **addxgcppersistevt** command.

addxgcppersistevt <index> <persistent_event>

Syntax Description	
<i>index</i>	The persistent event index package event number in the range 1–16.
<i>persistent_event</i>	The xGCP package and event string listed as persistent. Values are <ul style="list-style-type: none"> • r/co4 = Network continuity test detect • g/ft = Fax tone • g/mt = Modem tone • g/vbd = Voiceband data • g/vbdt = Voiceband data termination • l/hu, bl/hu = On hook • l/hd, blhd = Off hook • ms/ans, dt/ans, md/ans, mo/ans = Answer • ms/sup, dt/sup, md/sup = Setup • ms/rel, dt/rel, md/rel, mo/rel = Release • ms rtc, dt/rlc, md/rlc, mo/rlc = Release complete • ms/res, dt/res, md/res = Resume • ms/sus, dt/sus, md/sus = Suspend • md/awk = Acknowledgment wink • mo/rbz = Reverse make busy

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

Usage Guidelines This command notifies the call agent of the specified event without the need for a xGCP notification request. There are no persistent xGCP events by default. Only valid xGCP strings (described in the *persistent_event* syntax description list) can be configured with this command.

Examples The following example shows that the persistent event index number 1 is added for the voiceband data package:

```
addxgcppersistevt 1 g/vbd
```

Related Commands	Command	Description
	cnfcasflashtime	Configures the minimum and maximum CAS on-hook time periods for incoming flash hooks on a specified endpoint.
	cnfcasglareattrib	Configures the direction of CAS calls and the glare policy for a specified endpoint.
	cnfcaspackage	Configures MGCP packages to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
	cnflndigitorder	Assigns the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.
	delxgcppersistevt	Deletes a persistent xGCP event.
	dspcasglareattrib	Displays the direction of CAS calls and the glare policy for a specified endpoint.
	dspcaspackage	Displays the MGCP packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
	dspcastimers	Displays the currently configured CAS timers for a specified endpoint.
	dsplndigitorder	Displays the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.

CC

To navigate from the current (logged on) card to another card in the MGX 8000 Series platform, use the **cc** command.

```
cc <slotNum>
```

Syntax Description

<i>slotNum</i>	The slot number in the MGX 8000 Series platform that contains the card you want to access and configure. Ranges are
	<ul style="list-style-type: none"> • 1–14 for MGX 8230 and MGX 8830 chassis • 1–32 for MGX 8250, MGX 8850 (PXM1, PXM1E, and PXM45) chassis

Command Modes

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

Usage Guidelines

When you execute this command, the card residing in the slot identified by the *slotNum* value becomes active and is identified in the command line prompt. If there is no card in the slot identified by the *slotNum* value, an error message is displayed on your terminal.

Examples

The following example shows that the card in slot 22 was active, and now the card in slot 11 is active:

```
node1.1.22.VISM.a > cc 11
```

```
node1.1.11.VISM.a >
```

Related Commands

There are no related commands.

chkflash

To verify the integrity of a VISM card's flash memory, use the **chkflash** command.

chkflash

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example verifies the current VISM card's flash memory:

```
chkflash
```

Related Commands There are no related commands.

clralm

To clear alarms on a specific VISM card line, use the **clralm** command.

```
clralm -ds1 <LineNum>
```

Syntax Description

-ds1	The mandatory <i>line-num</i> argument identifier.
<i>LineNum</i>	Line number in which to clear alarms. Range is 1–8.

Command Modes

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

Usage Guidelines

This command clears alarms caused by the collection of statistical data. Alarms caused by network failure cannot be cleared by using this command. For example, an alarm caused by a collection of bipolar errors can be cleared, but an alarm caused by a line failure cannot. Alarms that occur after you execute this command are not affected.

Examples

The following example shows that any alarms caused by statistical data are cleared from line 1:

```
clralm -ds1 1
```

Related Commands

Command	Description
clralms	Clears alarms on a VISM card.
dspalm	Displays the alarms associated with a specified line.
dspalms	Displays all alarms for the selected line type (T1 or E1) on a card.

clralmct

To clear the alarm counters and statistics on a specified VISM line, use the **clralmct** command.

```
clralmct -ds1 <LineNum>
```

Syntax Description

-ds1	The mandatory <i>line-num</i> argument identifier.
<i>LineNum</i>	Line number for which to clear alarm counters and statistics. Range is 1–8.

Command Modes

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

Usage Guidelines

After you execute this command, all counters are reset to 0.

Examples

The following example clears alarm counters and statistics from line 1:

```
clralmct -ds1 1
```

Related Commands

Command	Description
clralmcts	Clears all alarm counters and statistics on a VISM card.
dspalmct	Displays the alarm counters and statistics on a line.

clralmcnts

To clear all the alarm counters and statistics on a VISM card, use the **clralmcnts** command.

clralmcnts

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines After you execute this command, all counters are reset to 0. The terminal display does not indicate a response to this command.

Examples The following example shows that the alarm counters and statistics are removed for the current VISM card:

```
clralmcnts
```

Related Commands	Command	Description
	clralmcnt	Clears the alarm counters and statistics on a VISM line.
	dspalmcnt	Displays the alarm counters and statistics for the current VISM card.

clralms

To clear alarms on a VISM card, use the **clralms** command.

clralms

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

This command can clear alarms caused only by the collection of statistical data. Alarms caused by network failure cannot be cleared. For example, an alarm caused by a collection of bipolar errors can be cleared, but an alarm caused by a line failure cannot. Alarms occurring after this command executes are not affected.

The terminal display does not indicate a response to this command.

Examples

The following example shows that the alarms are cleared on the current VISM card:

```
clralms
```

Related Commands

Command	Description
clralm	Clears alarms on a specific line of a VISM card.
dspalm	Displays the alarms associated with a specified line.
dspalms	Displays all alarms for the selected line type on a VISM card.

clrcacfailcntrs

To reset all connection admission control (CAC) failure statistics to 0, use the **clrcacfailcntrs** command.

clrcacfailcntrs

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines This command is used for debugging purposes to reset counters and isolate any VISM CAC-related failures. Counter values more than zero indicate that the gateway is low on resources.
The terminal display does not indicate a response to this command.

Examples The following example shows that the CAC failure statistics are reset to 0:

```
clrcacfailcntrs
```

Related Commands	Command	Description
	dspcacfailcntrs	Displays all CAC failure statistics that are reset to 0.

clrccsnt

To reset the common channel signaling (CCS) counter values for a specified line and DS0, use the **clrccsnt** command.

```
clrccsnt <line_number> <ds0_number>
```

Syntax Description

<i>line_number</i>	Line number. Range is 1–8.
<i>ds0_number</i>	DS0 number. <ul style="list-style-type: none"> • 1–24 = T1 • 1–31 = E1

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

After you execute this command, all counters are reset to 0.
This command can be used for troubleshooting purposes.

Examples

The following example shows the CCS counters being reset for DS0 1 on line 1.

```
clrccsnt 1 1
```

The terminal display does not indicate a response to this command.

Related Commands

Command	Description
dspsccsnt	Displays the common channel signaling (CCS) counter values for a specified line and DS0.

clrcsents

To reset the common channel signaling (CCS) counter values for all of the configured CCS channels on the VISM/VISM-PR card, use the **clrcsents** command.

clrcsents

Syntax Description This command has no arguments or keywords

Command Modes AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines The command clears the HDLC counters of all the configured CCS channels on the VISM/VISM-PR card.

This commands can be used for troubleshooting purposes.

Examples The following example shows that the CCS counters being reset for all of the configured CCS channels.

```
clrcsents
```

The terminal display does not indicate a response to this command.

Related Commands

Command	Description
dspccsnt	Displays the CCS counter values for a specified line and DS0.

clrmngcident

To clear AAL2 channel identifier (CID) counters, use the **clrmngcident** command.

clrmngcident <endpt_num>

Syntax Description	endpt_num
	Endpoint number for which the AAL2 counters are cleared. Ranges are <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1

Command Modes AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines Indicate the endpoint number you want to clear AAL2 counters for with the *endpt_num* argument value. The terminal display does not indicate a response to this command.

Examples The following example shows that the AAL2 counters for endpoint number 140 are cleared:

```
clrmngcident 140
```

Related Commands	Command	Description
	dspcid	Displays a VISM card's AAL2 channel identifier.
	dspcids	Displays a VISM card's AAL2 channel identifiers for a specified LCN.

clrrtpcnt

To clear the Real-Time Transport Protocol (RTP) counters (statistics) for a specific static RTP connection, as shown by the **dsprtpcnt** command, use the **clrrtpcnt** command.

```
clrrtpcnt <rtp_conn_index>
```

Syntax Description

<i>rtp_conn_index</i>	Connection identification number. Range is 1–248.
-----------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the RTP counters for static RTP connection number 49 are cleared:

```
clrrtpcnt 49
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsprtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsprtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprtpconnstat	Displays the RTP connection statistics for a specified endpoint.
dsprtpcons	Displays the configuration data of all static RTP VoIP trunking connections.

Command	Description
dsprudp trunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudp trunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

clrsarnt

To clear the segmentation and reassembly (SAR) counters on a channel, use the **clrsarnt** command.

```
clrsarnt <LCN>
```

Syntax Description	<i>LCN</i>	Logical channel number for which the SAR counters are to be cleared. Range is 131–510.
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking	
Usage Guidelines	Indicate the channel number for which you want to clear SAR counters with an <i>LCN</i> argument value.	
Examples	The following example shows that the SAR counters are cleared on channel 140: <pre>clrsarnt 140</pre>	
Related Commands	Command	Description
	dspsarnt	Display the values of the SAR counters for a specified channel.

clrsarcnts

To clear all segmentation and reassembly (SAR) counters on a VISM card, use the **clrsarcnts** command.

clrsarcnts

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures when you use this command.

Examples

The following example shows that all SAR counters on the current VISM card are cleared:

```
clrsarcnts
```

Related Commands

Command	Description
clrsarcnt	Clears the SAR counters on a specified channel.
dspsarcnt	Displays the SAR counter values for a specified channel.
dspsarcnts	Displays the SAR counter values for a VISM card.

clrsarmsgcnt

To clear the control message counters from a VISM card, use the **clrsarmsgcnt** command.

clrsarmsgcnt

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures when you use this command.

Examples The following example shows that the SAR control message counters are cleared from the current VISM card:

```
clrsarmsgcnt
```

Related Commands	Command	Description
	dspsarmsgcnt	Displays the SAR control message counter values for a VISM card.

clrscrn

To clear the control terminal screen, use the **clrscrn** command.

clrscrn

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines After you execute this command, only the current command line prompt appears on the screen.

Examples The following example shows that your control terminal screen is cleared, other than the current command line prompt:

```
clrscrn
```

Related Commands There are no related commands.

clrslipcnt

To clear current clock slip counters for a specified VISM line, use the **clrslipcnt** command.

clrslipcnt <line_number>

Syntax Description

<i>line_number</i>	Line number of the DS1 line for which you want to clear current clock slip counters. Range is 1–8.
--------------------	--

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the current clock slip counters for line 3 of the VISM card are cleared:

```
clrslipcnt 3
```

```
Line 3 Slip Counters:  Tx Slip  Rx Slip
Uncontrolled Slip:    0         0
Frame Slip:           0         2
```

Related Commands

Command	Description
dspslipcnt	Displays the current clock slip counters for a specified VISM card line.

clrtaskinfo

To reset the values displayed by the **dsptaskinfo** command, use the **clrtaskinfo** command.

clrtaskinfo

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines When you execute this command, the values are reset to 0 and the collection of the task information statistics begins again.

Examples The following example shows that values displayed by the **dsptaskinfo** command are reset:

```
clrtaskinfo
```

Related Commands	Command	Description
	dsptaskinfo	Displays information about currently operating tasks.

cnfaal2subcellmuxing

To enable or disable AAL2 subcell multiplexing, use the **cnfaal2subcellmuxing** command.

cnfaal2subcellmuxing <muxing status>

Syntax Description

muxing status Value to enable or disable AAL2 subcell multiplexing.

- 1 = On
 - 2 = Off
-

Command Modes

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

Usage Guidelines

When you enable multiplexing, multiple CPS packets are multiplexed onto a single AAL2 connection without partial fill (unless there is a timeout). When you disable multiplexing, each CPS packet fills one or two cells (with padding).



Note

The field length for each CPS packet can be up to 64 bytes.

When the multiplexing type is changed if CIDs are present, the card is reset and existing CIDs/connections are restored with the multiplexing type.

Examples

The following example shows that subcell multiplexing is disabled:

```
cnfaal2subcellmuxing 2
```

Related Commands

There are no related commands.

cnfaal2timerparams

To configure the holdover time for voice activity detection (VAD) before activating silence suppression on an AAL2 PVC, use the **cnfaal2timerparams** command.

cnfaal2timerparams <VadTimer> <CidFillTimer>

Syntax Description		
	<i>VadTimer</i>	VAD holdover timer (defined in milliseconds) in the range 250–65535 ms. Default is 250 ms.
	<i>CidFillTimer</i>	Maximum wait time for cell content filling when the next packet is not ready (defined in milliseconds) in the range 5–100 ms. Default is 30 ms.

Command Modes AAL2 trunking, switched AAL2 SVC, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines If AAL2 subcell multiplexing is disabled with the **cnfaal2subcellmuxing** command, executing this command produces no affect.

Examples The following example shows that the VAD holdover timer is set for 500 ms and the wait time for a cell to fill when the next packet is not ready is up to 50 ms:

```
cnfaal2timerparams 500 50
```

Related Commands There are no related commands.

cnfaal2transparams

To configure the transportation of dual tone multifrequency (DTMF) and channel associated signaling (CAS) bits to another endpoint and enable or disable type 3 packet triple redundancy feature, use the **cnfaal2transparams** command.

```
cnfaal2transparams <DtmfRelay> <CasBits> <Type3Redundancy>
```

Syntax Description

<i>DtmfRelay</i>	Value to enable or disable DTMF tone transport as AAL2 type 3 packets. <ul style="list-style-type: none"> 1 = On. DTMF relay using RFC 2833 2 = Off. DTMF pass through (Default) <p>Note The <i>DtmfRelay</i> argument value must be set to 1 (on) if you are using codecs other than G.711 and G.726.</p>
<i>CasBits</i>	Value to enable or disable CAS bits transportation. <ul style="list-style-type: none"> 1 = On 2 = Off (Default)
<i>Type3Redundancy</i>	Value to enable or disable triple redundancy protection for type 3 packets. <ul style="list-style-type: none"> 1 = On (Default) 2 = Off

Command Modes

Switched AAL2 SVC and switched AAL2 PVC

Usage Guidelines

Follow standard CLI procedures when using this command.

Examples

The following example shows that DTMF tone transportation, CAS bits transportation, and triple redundancy protection are enabled:

```
cnfaal2transparams 1 1 1
```

Related Commands

There are no related commands.

cnfadapgain

To enable or disable the DSP adaptive gain feature, use the **cnfadapgain** command.

```
cnfadapgain <adapgain_flag>
```

Syntax Description	<i>adapgain_flag</i> Value to enable or disable adaptive gain. <ul style="list-style-type: none">• 1 = On• 2 = Off
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking
Usage Guidelines	Follow standard CLI procedures when using this command.
Examples	The following example shows that the adaptive gain feature is enabled: <pre>cnfadapgain 1</pre>
Related Commands	There are no related commands.

cnfaggsvcbw

To aggregate switched virtual connection (SVC) bandwidth, use the **cnfaggsvcbw** command.

cnfaggsvcbw <*aggregateSvcBandwidth*>

Syntax Description	<i>aggregateSvcBandwidth</i>	Value to set the bandwidth. Range is 0–100,000 cps. Default is 0.
--------------------	------------------------------	---

Command Modes AAL1 switching, switched AAL2 SVC, and VoIP and AAL1 SVC

Usage Guidelines The configured aggregate SVC bandwidth is applicable in only bearer SVC connection admission control (CAC). In addition this bandwidth is used as aggregate SVC traffic clipping bandwidth when aggregate traffic clipping is enabled.

Examples The following example shows the SVC bandwidth is set to 50 cps:

```
cnfaggsvcbw 50
```

Related Commands	Command	Description
	dspaggsvcbw	Displays the configured, used, and available SVC bandwidth.

cnfaissuppression

To enable or disable alarm indication signal (AIS) suppression, use the **cnfaissuppression** command.

cnfaissuppression *<enableFlag>*

Syntax Description	<i>enableFlag</i>	Value that enables or disables AIS suppression. <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
---------------------------	-------------------	---

Command Modes AAL2 trunking, switched AAL2 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows AIS suppression being enabled.

```
cvmgmx1a.1.12.VISM8.a > cnfaissuppression 1
INFORMATION: Successfully Enabled AIS Suppression.
```

If you attempt to enable AIS suppression when it is already enabled, the following message displays:

```
WARNING: AIS Suppression is already enabled.
```

Related Commands	Command	Description
	dspaissuppression	Shows whether or not AIS suppression is enabled.

cnfalm

To configure the alarm parameters for a specified line, use the **cnfalm** command.

```
cnfalm -dsl <LineNum> -red <RedSeverity> -rai <RAISeverity> -neu <NEAlarmUpcount>
-ned <NEAlarmDncount> -net <NEAlarmThreshold> -feu <FEAlarmUpcount> -fed
<FEAlarmDncount> -fet <FEAlarmThreshold>
```

Syntax Description

-dsl	The mandatory <i>LineNum</i> argument identifier.
<i>LineNum</i>	Line number on which to configure alarm parameters. Range is 1–8.
-red	The mandatory <i>RedSeverity</i> argument identifier.
<i>RedSeverity</i>	Red alarm severity level. Values are <ul style="list-style-type: none"> • 1 = Minor • 2 = Major
-rai	The mandatory <i>RAISeverity</i> argument identifier.
<i>RAISeverity</i>	Remote alarm indication (RAI) severity level. Values are <ul style="list-style-type: none"> • 1 = Minor • 2 = Major
-neu	The mandatory <i>NEAlarmUpCount</i> argument identifier.
<i>NEAlarmUpcount</i>	Near end alarm up count (defined in milliseconds) in the range 1–65535 ms.
-ned	The mandatory <i>NEAlarmDncount</i> argument identifier.
<i>NEAlarmDncount</i>	Near end alarm down count (defined in milliseconds) in the range 1–65535 ms.
-net	The mandatory <i>NEAlarmThreshold</i> argument identifier.
<i>NEAlarmThreshold</i>	Near end alarm threshold (defined in milliseconds) in the range 1–65535.
-feu	The mandatory <i>FEAlarmUpcount</i> argument identifier.
<i>FEAlarmUpcount</i>	Far end alarm up count (defined in milliseconds) in the range 1–65535.
-fed	The mandatory <i>FEAlarmDncount</i> argument identifier.
<i>FEAlarmDncount</i>	Far end alarm down count (defined in milliseconds) in the range 1–65535.
-fet	The mandatory <i>FEAlarmThreshold</i> argument identifier.
<i>FEAlarmThreshold</i>	Far end alarm threshold (defined in milliseconds) in the range 1–65535.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures when using this command.

Examples

The following example shows that line 2 is configured with a red severity alarm of major, and an RAI severity of minor:

```
cnfalm -dsl 2 -red 1 -rai 1 -neu -ned -net -feu -fed -fet
```


Related Commands	Command	Description
	clralm	Clears alarms from a specific line of a VISM card
	clralms	Clears all alarms from a VISM card.
	dspalm	Displays the alarms associated with a specified line of a VISM card.

cnfalmcnt

To configure the collection of Time Division Multiplex (TDM) line statistics, use the **cnfalmcnt** command.

```
cnfalmcnt -ds1 <LineNum> -sev <StatisticalAlarmSeverity> -lcv15 <lCV15minThreshold> -lcv24
<lCV24hrThreshold> -les15 <lES15minThreshold> -les24 <lES24hrThreshold> -lses15
<lSES15minThreshold> -lses24 <lSES24hrThreshold> -crc15 <cRC15minThreshold> -crc24
<cRC24hrThreshold> -crcses15 <cRCSES15minThreshold> -crcses24 <cRCSES24hrThreshold>
-crcses15 <cRCSES15minThreshold> -crcses24 <cRCSES24hrThreshold> -sefs15
<sEFS15minThreshold> -sefs24 <sEFS24hrThreshold> -aiss15 <aISS15minThreshold>
-aiss24 <aISS24hrThreshold> -uas15 <uAS15minThreshold> -uas24 <uAS24hrThreshold>
```

Syntax Description

-ds1	The mandatory <i>LineNum</i> argument identifier.
<i>LineNum</i>	Line number of the T1 or E1 line for which you want to display alarms. Range is 1–8.
-sev	The <i>StatisticalAlarmSeverity</i> argument identifier.
<i>StatisticalAlarmSeverity</i>	Alarm severity. Values are <ul style="list-style-type: none"> • 1 = Minor • 2 = Major
-lcv15	The <i>lCV15minThreshold</i> argument identifier.
<i>lCV15minThreshold</i>	Number of line code violations (LCVs) encountered by the line interface in the current 15-minute interval. Range is 0–2147483647.
-lcv24	The <i>lCV24hrThreshold</i> argument identifier.
<i>lCV24hrThreshold</i>	Number of LCVs encountered by the interface in the last 24-hour period. Range is 0–2147483647.
-les15	The <i>lES15minThreshold</i> argument identifier.
<i>lES15minThreshold</i>	Line code violation errored seconds (ES) encountered by the interface in the last 15 minutes. Range is 0–2147483647.
-les24	The <i>lES24hrThreshold</i> argument identifier.
<i>lES24hrThreshold</i>	Line code violation ES encountered by the interface in the last 24 hours. Range is 0–2147483647.
-lses15	The <i>lSES15minThreshold</i> argument identifier.
<i>lSES15minThreshold</i>	Line code violation severely errored seconds (SES) encountered by the interface in the last 15 minutes. Range is 0–2147483647.
-lses24	The <i>lSES24hrThreshold</i> argument identifier.
<i>lSES24hrThreshold</i>	Line code violation SES encountered by the interface in the last 24 hours. Range is 0–2147483647.
-crc15	The <i>cRC15minThreshold</i> argument identifier.
<i>cRC15minThreshold</i>	Number of cyclic redundancy check (CRC) code violations encountered by the interface in the last 15 minutes. Range is 0–2147483647.
-crc24	The <i>cRC24hrThreshold</i> argument identifier.
<i>cRC24hrThreshold</i>	Number of CRC code violations encountered by the interface in the last 24 hours. Range is 0–2147483647.
-crcses15	The <i>cRCSES15minThreshold</i> argument identifier.

<i>cRCES15minThreshold</i>	Number of CRC code violated errored seconds encountered by the interface in the last 15 minutes. Range is 0–2147483647.
-crses24	The <i>cRCES24hrThreshold</i> argument identifier.
<i>cRCES24hrThreshold</i>	Number of CRC code violated errored seconds encountered by the interface in the last 24 hours. Range is 0–2147483647.
-crses15	The <i>cRCSES15minThreshold</i> argument identifier.
<i>cRCSES15minThreshold</i>	Number of CRC code violated severely errored seconds encountered by the interface in the last 15 minutes. Range is 0–2147483647.
-crses24	The <i>cRCSES24hrThreshold</i> argument identifier.
<i>cRCSES24hrThreshold</i>	Number of CRC code violated severely errored seconds encountered by the interface in the last 24 hours. Range is 0–2147483647.
-sefs15	The <i>sEFS15minThreshold</i> argument identifier.
<i>sEFS15minThreshold</i>	Number of severely errored framing seconds encountered by the interface in the last 15 minutes. Range is 0–2147483647.
-sefs24	The <i>sEFS24hrThreshold</i> argument identifier.
<i>sEFS24hrThreshold</i>	Number of severely errored framing seconds encountered in the last 24 hours by the interface. Range is 0–2147483647.
-aiss15	The <i>aISS15minThreshold</i> argument identifier.
<i>aISS15minThreshold</i>	Number of AIS severely errored seconds encountered by the interface in the last 15 minutes. Range is 0–2147483647.
-aiss24	The <i>aISS24hrThreshold</i> argument identifier.
<i>aISS24hrThreshold</i>	Number of AIS severely errored seconds encountered by the interface in the last 24 hours. Range is 0–2147483647.
-uas15	The <i>uAS15minThreshold</i> argument identifier.
<i>uAS15minThreshold</i>	Number of unavailable seconds encountered by the interface in the last 15 minutes. Range is 0–2147483647.
-uas24	The <i>uAS24hrThreshold</i> argument identifier.
<i>uAS24hrThreshold</i>	Number of unavailable seconds encountered by the interface in the last 24 hours. Range is 0–2147483647.

Command Modes

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

Usage Guidelines

Values higher than 2,147,483,647 for the argument values are truncated.

The following line statistics are collected:

- Line code violations encountered by the line interface in the current 15-minute interval.
- Line code violations in the last 15-minute period encountered by the interface.
- Line code violations in the last 24-hour period encountered by the interface.
- Line code violations Errored Seconds encountered by the interface.
- Line code violations Errored Seconds in the last 15 minutes encountered by the interface.
- Line code violations Errored Seconds in the last 24 hours encountered by the interface.

- Line code violations Severely Errored Seconds encountered by the interface.
- Line code violations Severely Errored Seconds in the last 15 minutes encountered by the interface.
- Line code violations Severely Errored Seconds in the last 24 hours encountered by the interface.
- CRC code violations encountered by the interface.
- CRC code violations in the last 15 minutes encountered by the interface.
- CRC code violations in the last 24 hours encountered by the interface.
- CRC code violated Errored Seconds encountered by the interface.
- CRC code violated Errored Seconds in the last 15 minutes encountered by the interface.
- CRC code violated Errored Seconds in the last 24 hours encountered by the interface.
- P Bit code violations Severely Errored Seconds encountered by the interface.
- CRC code violated Severely Errored Seconds in the last 15 minutes encountered by the interface.
- CRC code violated Severely Errored Seconds in the last 24 hours encountered by the interface.
- Severely Errored Framing Seconds encountered by the interface.
- Severely Errored Framing Seconds in the last 15 minutes encountered by the interface.
- Severely Errored Framing Seconds in the last 24 hours encountered by the interface.
- AIS Severely Errored Seconds encountered by the interface.
- AIS Severely Errored Seconds in the last 15 minutes encountered by the interface.
- AIS Severely Errored Seconds in the last 24 hours encountered by the interface.
- Unavailable Seconds encountered by the interface.
- Unavailable Seconds in the last 15 minutes encountered by the interface.
- Unavailable Seconds in the last 24 hours encountered by the interface.
- Percentage of LCV Error Free Seconds.
- Loss of Signal detected with or without integrating to LOS alarm.
- Out of Frame detected with or without integrating to OOF alarm.
- Yellow Alarms detected with or without integrating to RAI alarm.
- Framing Pattern Errors encountered by a DS1 interface.

Examples

The following example shows that the TDM line statistics for major alarms are collected for line number 7:

```
cnfalmcnt -ds1 7 -sev 2
```

Related Commands

Command	Description
dspalmcnf	Displays the threshold data about the alarm statistics being collected.
dspalmcnt	Displays the alarm counters and statistics on a line.

cnfannagetime

To configure the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache, use the **cnfannagetime** command.

cnfannagetime <*ann_age_time*>

Syntax Description

<i>ann_age_time</i>	Nonpermanent announcement age time (defined in minutes). Range is 0–65535 min.
Note	0 = Infinite amount of time; the nonpermanent announcement remains valid until you replace it, if necessary.

Command Modes

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

Usage Guidelines

When a nonpermanent announcement enters the announcement cache, it remains valid, as is, until the time you select for the *ann_age_time* argument value expires. When the time expires, the nonpermanent announcement is refreshed from the announcement file server. Requests to play a nonpermanent announcement do not affect its age time or cause the file to be refreshed.

Examples

The following example shows that nonpermanent announcements are configured to expire two hours after being placed into the VISM announcement cache:

```
cnfannagetime 120
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.

Command	Description
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

cnfanndn

To designate the announcement file server domain name, use the **cnfanndn** command.

```
cnfanndn <ann_server>
```

Syntax Description

<i>ann_server</i>	Announcement file server domain name. Range is 1–64 alphanumeric characters. You can also use forward slashes (/), backward slashes (\), periods, hyphens, and underscores when creating an announcement file server domain name.
Note	Do not use forward slashes (/) or hyphens as the last character in an announcement file server name. Do not use spaces in an announcement file server domain name.

Command Modes

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

Usage Guidelines

You must add the announcement file server name as a regular node name using the VISM xDNS commands before you use this command.

Examples

The following example shows that the announcement file server is configured with the name `announceserver3`:

```
cnfanndn announceserver3
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.

Command	Description
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.
dspannreqtimeout	Displays the expiration time for announcements to begin playing before being aborted.

cnfannpathprefix

To designate the main prefix directory Trivial File Transfer Protocol (TFTP) path from which to retrieve announcement files from the announcement file server, use the **cnfannpathprefix** command.

cnfannpathprefix <ann_path_pref>

Syntax Description

<i>ann_path_pref</i>	Main directory TFTP path. Range is 1–64 alphanumeric characters. You can also use forward slashes (/), periods, hyphens, and underscores when creating an announcement file server domain name
----------------------	--

Command Modes

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

Usage Guidelines

The prefix directory path is prefixed to the codec directory and the filename. The path prefix is relative to the default TFTP directory on the announcement file server. Examples of valid prefix directory paths are

- <null string>
- vism_ann
- cisco/vism_ann
- /cisco/vism_ann



Note The /cisco/vism_ann path starts at the root directory on the announcement file server because the path begins with a backslash (/).

If you do not use this command, the default TFTP directory on the announcement file server is used as the prefix directory path.

You can use any directory or path on the announcement file server as the main directory for storing announcement files. Take into consideration the following guidelines when you use this command:

- If you do not configure an announcement path prefix on the VISM, the main announcement file directory is the default TFTP directory on the server.
- If you configure a path prefix, it is used as the main announcement directory.
- If the path prefix is not absolute (does not begin with /), then the prefix is relative to the default TFTP directory.

You must configure codec subdirectories under the main announcement directory on the announcement file server. One or more of the following codec subdirectories, for each encoding, are used for announcement files:

- g711u/
- g711a/
- g726_32k/
- g726_24k/
- g726_16k/

- g729_a/
- g7231_high_rate/
- g7231_a_high_rate/
- g7231_low_rate/
- g7231_a_low_rate/

**Note**

VISM supports G.729ab for connections and endpoints. If an announcement is to be played on a connection or endpoint provisioned for G.729ab, it must be recorded in G.729a.

For example, if the announcement server all-lines-busy.au file is encoded in both g711a and g729a, the following path names and files exist on the file server (assuming the default TFTP directory is tftpboot):

- /tftpboot/g711_a/all-lines-busy.au
- /tftpboot/g729_a/all-lines-busy.au

When the call agent requests that the announcement server all-lines-busy.au file be played toward one end of an established call, the VISM determines the codec being used for that call and plays the corresponding announcement file.

When the call agent requests that an announcement be played toward the TDM network on an unconnected endpoint, the codec used is specified by the VISM announcement preferred codec, configured with the **cnfannprefcodec** command.

You can configure another level of directories to group announcement files by language. Specify these directories by the call agent (or when provisioning the VISM) as part of the announcement file name. For example, the call agent might specify the english/ann1.au announcement file name. If the file is encoded in G.729a and the prefix is /tftpboot, the file is located at /tftpboot/g729_a/english/ann1.au.

Examples

The following example shows that the /cisco/vism_ann path is designated as the prefix directory path from which to retrieve announcement files from the announcement file server:

```
cnfannpathprefix /cisco/vism_ann
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfanndn	Designates an announcement file server domain name.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.

Command	Description
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

cnfannprefcodec

To configure the codec type used for announcements played on unconnected Time Division Multiplex (TDM) endpoints, use the **cnfannprefcodec** command.

cnfannprefcodec <*ann_codec*>

Syntax Description

<i>ann_codec</i>	Announcement codec for TDM endpoints:
	<ul style="list-style-type: none"> • 1 = G.711u • 2 = G.711a • 3 = G.726-32K • 4 = G.729a • 5 = G.729ab • 6 = Not used • 7 = G.726-16K • 8 = G.726-24K • 9 = G.726-40K • 10 = Not used • 11 = G.723.1-H • 12 = G.723.1-AH • 13 = G.723.1-L • 14 = G.723.1-AL

Command Modes

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

Usage Guidelines

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

Examples

The following example shows that the G.723.1-H codec type is configured for announcements played on unconnected TDM endpoints:

```
cnfannprefcodec 11
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfanndn	Designates an announcement file server domain name.

Command	Description
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

cnfannreqtimeout

To configure the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent, use the **cnfannreqtimeout** command.

cnfannreqtimeout <*ann_ReqTO*>

Syntax Description

<i>ann_ReqTO</i>	Expiration time for a dynamic play announcement request (defined in seconds). Range is 0–15. (Default = 5)
Note	If <i>ann_ReqTO</i> = 0, the expiration time is not set, no expiration occurs, and requests are not aborted.

Command Modes

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

Usage Guidelines

If the call agent signals the announcement to be played toward the packet network on a connection that is not in a send mode, the request is deferred until the call agent modifies the connection. Once the connection is placed in send mode, the expiration timer is started.

Examples

The following example shows that announcements must begin playing within 12 seconds after the VISM receives the announcement signal from the call agent, after which time, requests are aborted:

```
cnfannreqtimeout 12
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfanndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.

Command	Description
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.
dspannreqtimeout	Displays the expiration time for announcements to begin playing before being aborted.

cnfcac

To enable or disable the connection admission control (CAC) feature on a VISM card, use the **cnfcac** command.

cnfcac <*enableFlag*>

Syntax Description

<i>enableFlag</i>	Value to enable or disable CAC.
	<ul style="list-style-type: none"> • 1 = Disable • 2 = Enable

Command Modes

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

Usage Guidelines

If you enable CAC with this command, you can then use the **cnfconcac** command to enable CAC on PVCs.

Examples

The following example shows that CAC is disabled for the current card:

```
cnfcac 1
```

Related Commands

Command	Description
cnfconcac	Enables CAC on an already added connection.

cnfcacparams

To configure connection admission control (CAC) features on a card, use the **cnfcacparams** command.

```
cnfcacparams <VAD_duty_cycle> <VAD_Tolerance>
```

Syntax Description	
<i>VAD_duty_cycle</i>	Voice activity detection (VAD) duty cycle—the ratio of speech and holdover duration to total duration expressed as a percentage. Holdover is the period after silence begins and silence suppression is turned on. In VISM, the holdover time is 250 ms. A typical value for this parameter is 61, which means that 61% of the time is taken by speech and holdover. Range is 1–99. (Default = 61)
<i>VAD_Tolerance</i>	VAD tolerance—the expression for VAD “over-subscription drop ratio” where: tolerance = 10000 x over-subscription drop ratio (expressed as a percentage). A typical value for VAD tolerance is 10. Some examples are <ul style="list-style-type: none"> • 10000 (tolerance) = 1% (over subscription drop ratio) • 100 = 0.01% • 10 = 0.001% • 1 = 0.0001% Range is 0–10000. Default is 100.

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

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows that VAD is configured for a duty cycle of 50 and a tolerance of 10:

```
cnfcacparams 50 10
```

Related Commands	Command	Description
	cnfcac	Enables or disables the CAC feature on a VISM card

cnfcalea

To enable or disable the Communications Assistance for Law Enforcement Act (CALEA) feature on the current VISM card, use the **cnfcalea** command.

```
cnfcalea <calea_flag_enable>
```

Syntax Description

<i>calea-enable</i>	Value to enable or disable the CALEA feature.
	<ul style="list-style-type: none"> 1 = Enable 2 = Disable (Default)

Command Modes

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

Usage Guidelines

To use the CALEA feature, ensure that you are using the VISM software version that supports CALEA. The CALEA implementation supports the CALEA law intercept confirmation interface.

Examples

The following example shows that the CALEA feature is enabled on the current VISM card:

```
cnfcalea 1
```

Related Commands

Command	Description
addcon	Adds a PVC connection between a VISM card and any SM or PXM card.
cnfcon	Configures a connection between a VISM card and an MGX 8000 Series platform PXM card.
dspcalea	Displays the CALEA feature configuration status of the current VISM card.
dspvismparam	Displays the current VISM card configuration.

cnfcascode

To configure channel associated signaling (CAS) idle code and seized code parameters for an endpoint, use the **cnfcascode** command.

```
cnfcascode <endpt_num> <idle_code> <seized_code> [/<endpts_num>]
```

Syntax Description

<i>endpt_num</i>	<p>Endpoint number which is to be configured with CAS idle code and seized code values. Ranges are</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 <p>Note If the second (optional) <i>endpts_num</i> argument is specified, this argument value is the first endpoint in a consecutive number of endpoints.</p>
<i>idle_code</i>	<p>The 4-bit idle code. Range is 0–15 and represents the four signaling bits—A, B, C, and D—in binary, as bits 3, 2, 1, and 0 respectively. Bit 3 is the most significant.</p>

<i>seized_code</i>	The 4-bit seized code. Range is 0–15 and represents the four signaling bits—A, B, C, and D—in binary, as bits 3, 2, 1, and 0 respectively. Bit 3 is the most significant.
<i>/endpts_num/</i>	(Optional) The last endpoint in a consecutive range of endpoints. Ranges are <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1

Command Modes

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

Usage Guidelines

You must add the line associated with the *endpt_num* argument value before you use this command.

Examples

The following example shows that the idle code is binary 0100 (argument value = 4, so that A = 0, B = 1, C = 0, D = 0), the seized code is binary 1001 (argument value = 9, so that A = 1, B = 0, C = 0, D = 1), for endpoints 1 to 4:

```
cnfcascode 1 4 9 4
```

Related Commands

There are no related commands.

cnfcasdelaydialtime

To configure the VISM wait time (dial delay) for outpulsing digits to the PBX after sending an off-hook event, use the **cnfcasdelaydialtime** command. This command applies to the wink start protocol.

```
cnfcasdelaydialtime <endpt_number> <dial_delay_time>
```

Syntax Description

<i>endpt_number</i>	Endpoint number. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>dial_delay_time</i>	Range from 10 to 1000 ms. Default is 100 ms.

Command Modes

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

Usage Guidelines

You can execute this command if the following conditions are met:

- The endpoint represented by the *endpt_num* argument value has been previously added.
- The associated DS0 is configured for CAS.
- The protocol is wink start.

The MIB was chosen as the source in the **cnfcasparamsource** command.

Examples

The following example shows that endpoint 100 is configured with a dial delay (wait time) of 100 ms:

```
mgx8850.1.28.VISM8.a> cnfcasdelaydialtime 100 100
```

The terminal display does not indicate a response to this command.

Related Commands

Command	Description
dspecastimers	Displays the currently configured CAS timers for a specified endpoint.

cnfcasdialogdelay

To configure the VISM wait time (dial delay) for outpulsing digits to the PBX after sending an off-hook event, use the **cnfcasdialogdelay** command. This command applies to the immediate start protocol.

```
cnfcasdialogdelay <endpt_num> <DialDelayTime>
```

Syntax Description

<i>endpt_num</i>	The endpoint number to which the outpulsing digits wait time is configured. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>DialDelayTime</i>	Wait time (defined in milliseconds) for outpulsing digits to the PBX after sending an off-hook event. Range is 10–1000. Default is 500.

Command Modes

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

Usage Guidelines

You can execute this command if the following conditions are met:

- The endpoint represented by the *endpt_num* argument value has been previously added.
- The associated DS0 is configured for CAS.
- The protocol is immediate start.
- The MIB was chosen as the source in the **cnfcasparamsource** command.

Examples

The following example shows that endpoint 100 is configured with a dial delay (wait time) of 50 ms:

```
cnfcasodialdelay 100 50
```

Related Commands

Command	Description
dspecastimers	Displays the currently configured CAS timers for a specified endpoint.

cnfcasendpt

To associate an endpoint with a channel associated signaling (CAS) variant name, use the **cnfcasendpt** command.

```
cnfcasendpt <endpt_number> <casVariantName>
```

Syntax Description

<i>endpt_number</i>	Endpoint number which is to be associated with the CAS variant identified by the <i>casVariantName</i> argument value. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>casVariantName</i>	Name of the CAS variant. Range is a text string from 1–64 alphanumeric characters.

Command Modes

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

Usage Guidelines

The endpoint and CAS variant must be previously added before you execute this command.

If a connection does not exist on an endpoint when the endpoint is associated with a CAS variant, use the **cnfcasendpt** command again to change the CAS variant.

However, if a connection exists on an endpoint, you must delete the endpoint, add the endpoint back, and then execute the **cnfcasendpt** command to change the CAS variant.

Examples

The following example shows that endpoint number 3 is associated with the q50.o CAS variant:

```
cnfcasendpt 3 q50.o
```

Related Commands

There are no related commands.

cnfcasflashtime

To configure the minimum and maximum channel associated signaling (CAS) on-hook time periods for incoming flash hooks on a specified endpoint, use the **cnfcasflashtime** command.

```
cnfcasflashtime <endpt_num> <FlashMinTime> <FlashMaxTime>
```

Syntax Description

<i>endpt_num</i>	Endpoint number which is to be configured with a minimum and maximum flash time. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>FlashMinTime</i>	Minimum flash time (defined in milliseconds). Range is 50–1550 ms. Default is 300 ms.
<i>FlashMaxTime</i>	Maximum flash time (defined in milliseconds). Range is 50–1550 ms. Default is 1400 ms.

Command Modes

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

Usage Guidelines

Use this command to allow VISM to distinguish flash hooks from disconnects by configuring the on-hook flash duration.

An on-hook event with a duration that falls in the configured range is interpreted as a flash hook. An on-hook event with a duration shorter than the configured range is ignored. An on-hook event longer than the configured range is interpreted as a disconnect.

Examples

The following example shows that endpoint number 90 is configured with a 400 ms minimum CAS on-hook flash time and a 1000 ms maximum CAS on-hook flash time:

```
cnfcasflashtime 90 400 1000
```

Related Commands

Command	Description
addxgcppersistevt	Adds persistent xGCP events.
cnfcasglareattrib	Configures the direction of CAS calls and the glare policy for a specified endpoint.
cnfcaspackage	Configures MGCP packages to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
dspcasglareattrib	Displays the direction of CAS calls and the glare policy for a specified endpoint.
dspcaspackage	Displays the MGCP packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
dspcastimers	Displays the currently configured CAS timers for a specified endpoint.

cnfcasglareattrib

To configure the direction of channel associated signaling (CAS) calls and the glare (dual seizure event) policy for a specified endpoint, use the **cnfcasglareattrib** command.

```
cnfcasglareattrib <endpt_num> <cas_direction> /<glare_policy>/
```

Syntax Description

<i>endpt_num</i>	Endpoint number which is to be configured with CAS call direction and a glare policy. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>cas_direction</i>	CAS bits flow direction. It can be one of the following values: <ul style="list-style-type: none"> • 1 = Bidirectional (incoming and outgoing) • 2 = Incoming • 3 = Outgoing
<i>/glare_policy/</i>	(Optional) Glare condition policy. Values are <ul style="list-style-type: none"> • 1 = Controlling • 2 = Releasing <p>Note You can assign a <i>glare_policy</i> argument value of 2 only if the <i>cas_direction</i> argument is assigned a value of 1.</p>

Command Modes

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

Usage Guidelines

Use this command to assist in controlling TDM glare events. Use the *cas_direction* argument to allow or disallow glare events. Use the *glare_policy* argument value to configure the resolution of glare events if you allow them to occur. Resolution of glare events is either to enable VISM to release a call and accept a call from the PBX, or wait for the PBX to release a call and enable VISM to continue with a call.

Examples

The following example shows that endpoint number 136 is configured with the incoming CAS bits flow direction and the controlling glare condition policy:

```
cnfcasglareattrib 136 2 1
```

Related Commands

Command	Description
addxgcppersistevt	Adds persistent xGCP events.
cnfcasflashtime	Configures the minimum and maximum CAS on-hook time periods for incoming flash hooks on a specified endpoint.
cnfcaspackage	Configures MGCP packages to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
cnflndigitorder	Assigns the order in which ANI digits and DINS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.
delxgcppersistevt	Deletes a persistent xGCP event.
dspcasglareattrib	Displays the direction of CAS calls and the glare policy for a specified endpoint.
dspcaspackage	Displays the MGCP packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
dspcastimers	Displays the currently configured CAS timers for a specified endpoint.
dsplndigitorder	Displays the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.

cnfcasglaretime

To configure the channel associated signaling (CAS) glare time for an endpoint, use the **cnfcasglaretime** command.

```
cnfcasglaretime <endpt_num> <GlareTime>
```

Syntax Description	
<i>endpt_num</i>	Endpoint number which is to be configured with a glare time, identified by the <i>GlareTime</i> argument value. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>GlareTime</i>	Glare time (defined in milliseconds). Range is 10–1000 ms. Default is 500 ms.

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

Usage Guidelines A glare condition occurs when two stations attempt to call each other simultaneously. Glare condition resolution involves a terminating VISM, which, upon receiving an off-hook event from the call agent, starts a timer and verifies that the terminating PBX is also attempting an off-hook event. If so, off-hook events from the call agent are ignored for the duration of the timer—the value you indicated with the *GlareTime* argument value.

To use this command, you must ensure that the endpoint indicated by the *endpt_num* argument value has been previously added, and that the associated DS0 is configured for CAS.

**Note**

To use this command, you must choose the MIB as the source in the **cnfcasparamsource** command.

Examples

The following example shows that endpoint 100 is configured with a CAS glare time value of 50 ms:

```
cnfcasglaretime 100 50
```

Related Commands

Command	Description
dspcastimers	Displays an endpoint's currently configured CAS timers.

cnfcasguardtime

To configure the channel associated signaling (CAS) guard time for an endpoint, use the **cnfcasguardtime** command.

```
cnfcasguardtime <endpt_num> <GuardTime>
```

Syntax Description

<i>endpt_num</i>	The endpoint number which is to be configured with a guard time, identified by the <i>GuardTime</i> argument value. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>GuardTime</i>	Guard time (defined in milliseconds). Range is 10–1000 ms. Default is 800 ms.

Command Modes

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

Usage Guidelines

Guard time is the minimum duration between the end of one call and the beginning of the next call. When a delete connection (DLCX) command is received from a call agent, VISM starts a timer—set by the value you indicate for the *GuardTime* argument—and ignores any off-hook events until the timer has expired.

To use this command, you must ensure that the endpoint indicated by the *endpt_num* argument value has been previously added, and that the associated DS0 is configured for CAS.

**Note**

To use this command, you must choose the MIB as the source in the **cnfcasparamsource** command.

Examples

The following example shows that endpoint number 100 is configured with a CAS guard time of 500 ms:

```
cnfcasguardtime 100 500
```

Related Commands

Command	Description
dspcastimers	Displays an endpoint's currently configured CAS timers.

cnfcasoffhooktime

To configure a minimum presence time, on an endpoint, for a CAS off-hook pattern to be recognized as an off-hook signal, use the **cnfcasoffhooktime** command.

```
cnfcasoffhooktime <endpt_num> <OffHookMintime>
```

Syntax Description	<i>endpt_num</i>	Endpoint number which is to be configured with a guard time, identified by the <i>OffHookMintime</i> argument value. Ranges are:
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
		<i>OffHookMintime</i> Off-hook time (defined in milliseconds). Range is 10–1000 ms. Default is 2- ms.

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

Usage Guidelines To use this command, you must ensure that the endpoint indicated by the *endpt_num* argument value has been previously added, and that the associated DS0 is configured for CAS.



Note

To use this command, you must choose the MIB as the source in the **cnfcasparamsource** command.

Examples

The following example shows that endpoint 100 is configured with a CAS off-hook time of 500 ms:

```
cnfcasoffhooktime 100 500
```

Related Commands

Command	Description
dspeastimers	Displays an endpoint's currently configured CAS timers.

cnfcasonhooktime

To configure a minimum presence time, on an endpoint, for a CAS on-hook pattern to be recognized as an on-hook signal, use the **cnfcasonhooktime** command.

```
cnfcasonhooktime <endpt_num> <OnHookMinTime>
```

Syntax Description

<i>endpt_num</i>	The endpoint number which is to be configured with a guard time, identified by the <i>OnHookMinTime</i> argument value. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>OnHookMinTime</i>	On-hook time (defined in milliseconds). Range is 10–1000 ms. Default is 300 ms.

Command Modes

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

Usage Guidelines

To use this command, you must ensure that the endpoint indicated by the *endpt_num* argument value has been previously added, and that the associated DS0 is configured for CAS.



Note

To use this command, you must choose the MIB as the source in the **cnfcasparamsource** command.

Examples

The following example shows that endpoint 100 is configured with an on-hook time of 500 ms:

```
cnfcasonhooktime 100 500
```

Related Commands

Command	Description
dspeastimers	Displays an endpoint's currently configured CAS timers.

cnfcaspacage

To configure the Media Gateway Control Protocol (MGCP) packages to notify persistent observed channel associated signaling (CAS) events in the context of incoming and outgoing CAS calls on a specified endpoint, use the **cnfcaspacage** command.

```
cnfcaspacage <endpt_num> <incoming_package> <outgoing_package>
```

Syntax Description	<i>endpt_num</i>	Endpoint number which is to be configured with the source location. Ranges are:
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248

<i>incoming_package</i>	<p>Package name to be used for persistent events observed on an incoming telephony call. Values are</p> <ul style="list-style-type: none">• MS = PBX DID/ODD trunks and incoming or outgoing MF wink start trunks• DT = DTMF and dial pulse¹ trunks (except basic PBX)• MD = North American MF Feature Group D EANA and EAIN• MO = FGD Operator Services Signaling outgoing trunks only• BL = DTMF and dial pulse¹ basic PBX trunks• L = Line• H = Handset• Basic = It can be one of the following:<ul style="list-style-type: none">- G—generic- D—DTMF- M—MF- T—Trunk- L—Line- H—Handset- R—RTP- A—Announcement Server- Script—Script
-------------------------	--

Note If you set the package to anything other than basic on an endpoint with this command, persistent events observed on that endpoint are encoded as an event in that package if the event is defined in that package, or dropped if they are not defined in that package. Packages N and S are not supported.

<i>outgoing_package</i>	<p>Package name to be used for persistent events observed on an outgoing telephony call. Values are</p> <ul style="list-style-type: none"> • MS = PBX DID/DOD trunks and incoming or outgoing MF wink start trunks • DT = DTMF and dial pulse¹ trunks (except basic PBX) • MD = North American MF Feature Group D EANA and EAIN • MO = FGD Operator Services Signaling outgoing trunks only • BL = DTMF and dial pulse¹ basic PBX trunks • L = Line • H = Handset • Basic = It can be from the following: <ul style="list-style-type: none"> - G—generic - D—DTMF - M—MF - T—Trunk - L—Line - H—Handset - R—RTP - A—Announcement Server - Script—Script <p>Note If you set the package to anything other than basic on an endpoint with this command, persistent events observed on that endpoint are encoded as an event in that package if the event is defined in that package, or dropped if they are not defined in that package. Packages N and S are not supported.</p>
-------------------------	---

1. Dial pulse is not supported in VISM.

Command Modes

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

Usage Guidelines

This command enables RFC 3064 support.

Examples

The following example shows that the MGCP packages for endpoint number 83 are configured with mgcplin as the MGCP incoming package name and mgcplout as the MGCP outgoing package name:

```
cnfcaspacage 83 mgcplin mgcplout
```

Related Commands	Command	Description
	addxgcppersistevt	Adds persistent xGCP events.
	cnfcasflashtime	Configures the minimum and maximum CAS on-hook time periods for incoming flash hooks on a specified endpoint.
	cnfcasglareattrib	Configures the direction of CAS calls and the glare policy for a specified endpoint.
	cnflndigitorder	Assigns the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.
	delxgcppersistevt	Deletes a persistent xGCP event.
	dspcasglareattrib	Displays the direction of CAS calls and the glare policy for a specified endpoint.
	dspcaspackage	Displays the MGCP packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
	dspcastimers	Displays the currently configured CAS timers for a specified endpoint.
	dsplndigitorder	Displays the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.

cnfcasparamsource

To configure channel associated signaling (CAS)-related timer source parameters for an endpoint, use the **cnfcasparamsource** command.

```
cnfcasparamsource <endpt_num> <ParamSource>
```

Syntax Description

<i>endpt_num</i>	The endpoint number which is to be configured with the source location, identified by the <i>ParamSource</i> argument value. Ranges are: <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>ParamSource</i>	CAS-related timer parameters source location. Values are <ul style="list-style-type: none"> • 1 = CAS application file (Default) • 2 = Current VISM MIB

Command Modes

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

Usage Guidelines

You can configure different CAS-related timer values for different endpoints; however, the endpoints must all be associated with the same CAS variant.

To use this command, you must ensure that the endpoint indicated by the *endpt_num* argument value has been previously added, and that the associated DS0 is configured for CAS.

Examples

The following example shows that endpoint number 100 is configured with CAS-related timer values located in the current VISM card's MIB:

```
cnfcasparamsource 100 2
```

Related Commands

Command	Description
dspcasparamsource	Displays an endpoint's currently configured CAS-related timer source.

cnfcasstartdialtime

To configure the time when the incoming digits are interpreted as the start dial signal, use the **cnfcasstartdialtime** command.

cnfcasstartdialtime *<endpoint_number>* *<start_dial_time>*

Syntax Description	<i>endpt_number</i>	Endpoint number to which the outpulsing digits time is configured. Ranges are
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
	<i>start_dial_time</i>	Start dial time. Range is 70–1000 ms. Default is 70 ms.

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

Follow standard CLI procedures when using this command.

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows that endpoint 100 is configured with a start dial time of 70 ms:

```
mgx8850.1.28.VISM8.a> cnfcasstartdialtime 100 70
```

■ cnfcasstartdialtime

Related Commands

Command	Description
dspecastimers	Displays the currently configured CAS timers for a specified endpoint.

cnfcasvar

To configure a previously added channel associated signaling (CAS) variant timing parameters, use the **cnfcasvar** command.

```
cnfcasvar <variant_name> <country_code> <Tring> <Tpart> <Tcrit> <TMF>
```

Syntax Description

<i>variant_name</i>	Name of a previously added CAS variant. Range is 1–64 alphanumeric characters.
<i>country_code</i>	Country code of the variant. The value must be a two-character text string.
<i>Tring</i>	Ringing time (defined in seconds). Range is 10–600 secs.
<i>Tpart</i>	Partial dial time (defined in seconds). Range is 10–10000 secs—in increments of 10 secs.
<i>Tcrit</i>	Critical timing (defined in seconds). Range is 0–10000 secs—in increments of 10 secs.
<i>TMF</i>	Interdigit timeout value for MF digits (defined in seconds). Range is 1–10 secs.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures when using this command.

Examples

The following example shows that the var1 CAS variant for the nz country code is configured with a partial timeout of 10 seconds, a critical timing of 10 seconds, and an MF interdigit timeout of 2 seconds:

```
cnfcasvar var1 nz 10 10 2
```

Related Commands

Command	Description
addcasvar	Adds a CAS variant to a VISM card.
delcasvar	Deletes a CAS variant from a VISM card.
dspcasvar	Displays information about CAS variants for a given variant name.

cnfcaswinktime

To configure the channel associated signaling (CAS) wink time parameters—minimum and maximum make times, and minimum break time—for an endpoint, use the **cnfcaswinktime** command.

```
cnfcaswinktime <endpt_num> <WinkMinTime> <WinkMaxTime> <WinkBreakTime>
```

Syntax Description

<i>endpt_num</i>	Endpoint number which is to be configured with wink time parameters. Ranges are <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>WinkMinTime</i>	Minimum make duration time (defined in milliseconds) of the wink. Range is 10–1000 ms. Default is 100 ms.
<i>WinkMaxTime</i>	Maximum make duration time (defined in milliseconds) of the wink. Range is 10–3000 ms. Default is 1000 ms.
<i>WinkBreakTime</i>	Minimum break duration time (defined in milliseconds) of the wink. Range is 10–1000 ms. Default is 20 ms.

Command Modes

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

Usage Guidelines

A wink is composed of the following sequential events:

1. On-hook pattern
2. Off-hook pattern
3. Return to an on-hook pattern

The minimum and maximum make times are the minimum and maximum durations that the off-hook pattern persists. The minimum break time is the minimum duration that the on-hook pattern persists following the return to on-hook.

To use this command, you must ensure that the endpoint indicated by the *endpt_num* argument value has been previously added, and that the associated DS0 is configured for CAS.

**Note**

To use this command, you must choose the MIB as the source in the **cnfcasparamsource** command.

Examples

The following example shows that endpoint 100 is configured with a wink time specification of 100 ms for the minimum make time, 1000 ms for the maximum wake time, and 20 ms for the minimum break time:

```
cnfcaswinktime 100 100 100 20
```

Related Commands

Command	Description
dspcastimers	Displays an endpoint's currently configured CAS timers.

cnfcasxgcp

To configure channel associated signaling (CAS) variant retransmission parameters, use the **cnfcasxgcp** command.

```
cnfcasxgcp <variant_name> <rexTime> <initRexmitTime> <retries>
```

Syntax Description

<i>variant_name</i>	Name of the CAS variant to be configured with retransmission parameters. Range is a string of 1–64 alphanumeric characters.
<i>rexTime</i>	Retransmission time (defined in milliseconds). Range is 10–10000 ms—in 10 ms increments.
<i>initRexmitTime</i>	Initial retransmission time (defined in milliseconds). Range is 10–10000 ms—in 10 ms increments.
<i>retries</i>	Maximum number of retransmission retries. Range is 0–10.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the var1 CAS variant is configured for 100 ms retransmission time, 100 ms initial retransmission time, and up to two retransmission attempts:

```
cnfcasxgcp var1 100 100 2
```

Related Commands

Command	Description
addcasvar	Adds a CAS variant to a VISM card.
delcasvar	Deletes a CAS variant from a VISM card.
dspecasvar	Displays information about CAS variants for a given variant name.

cnfco1timer

To configure the bearer continuity test CO1 timer value, use the **cnfco1timer** command.

CO1 is a tone of 2010 Hz. The tone can be requested by the media gateway controller (MGC) or signaled on command by the MGC. The tone is applied for the specified period of time during continuity test.

cnfco1timer *timeout*

Syntax Description

<i>timeout</i>	Timeout value in the range 0–60 seconds. Default timeout is 3 seconds. A value of zero indicates the time-out period is infinite.
----------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the bearer continuity test CO1 timer expires at 3 seconds:

```
cnfco1timer 3
```

Related Commands

Command	Description
dspeo1timer	Displays the bearer continuity test CO1 timer value.
dspeo1param	Displays the current VISM card configuration.

cnfco2timer

To configure the bearer continuity test CO2 timer value, use the **cnfco2timer** command.

COs is a tone of 1780 Hz. The tone can be requested by the media gateway controller (MGC) or signaled on command by the MGC. The tone is applied for the specified period of time during continuity test.

cnfco2timer *timeout*

Syntax Description

<i>timeout</i>	Timeout value in the range 0–60 seconds. Default timeout is 3 seconds. A value of zero indicates the time-out period is infinite.
----------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the bearer continuity test CO2 timer expires at 3 seconds:

```
cnfco2timer 3
```

Related Commands

Command	Description
dspco2timer	Displays the bearer continuity test CO2 timer value.
dspvismparam	Displays the current VISM card configuration.

cnfco4timer

To configure the bearer continuity test CO4 timer value, use the **cnfco4timer** command.

```
cnfco4timer <timeout>
```

Syntax Description	<i>timeout</i> Timeout value (defined in milliseconds). Range is 50–10000 ms. Default is 1000 ms.						
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL2 SVC						
Usage Guidelines	A timer is started when a CO4 or xRBK message is sent. If a CO4 message is not received before the timeout expires, a VISM initiated DLCX message is sent to the call agent.						
Examples	The following example shows that the bearer continuity test CO4 timer expires at 10000 ms: <pre>cnfco4timer 10000</pre>						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>dspco4timer</td> <td>Displays the bearer continuity test CO4 timer value.</td> </tr> <tr> <td>dspvismparam</td> <td>Displays the current VISM card configuration.</td> </tr> </tbody> </table>	Command	Description	dspco4timer	Displays the bearer continuity test CO4 timer value.	dspvismparam	Displays the current VISM card configuration.
Command	Description						
dspco4timer	Displays the bearer continuity test CO4 timer value.						
dspvismparam	Displays the current VISM card configuration.						

cnfcodecjtrdelay

To configure the jitter delay mode and initial delay value for a specified codec, use the **cnfcodecjtrdelay** command.

```
cnfcodecjtrdelay <codecType> <jitter_mode> <jitter_initdelay>
```

Syntax Description	
<i>codecType</i>	Type of coding/decoding to be performed on the data stream. Values are <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.723.1-AH • 13 = G.723.1-L • 14 = G.723.1-AL • 15 = Lossless (VAD must be off)
<i>jitter_mode</i>	Jitter delay mode. It can be one of the following values: <ul style="list-style-type: none"> • 1 = Fixed. Cisco recommends fixed mode if latency jitter is constant. • 2 = Adaptive. Cisco recommends adaptive if latency jitter is variable.
<i>jitter_initdelay</i>	Initial jitter delay (defined in milliseconds). Ranges are <ul style="list-style-type: none"> • For codec templates 1, 3, 4, and 5—0–100 in increments of 10. • For codec template 2—0–100 in increments of 5. • For Lossless codec, range is 0–50.

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

Usage Guidelines Cisco recommends that you configure the *jitter_initdelay* argument to 20 ms when using DSP firmware versions 3.4 and 3.6.

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

Examples

The following example shows that codec G.726-24K is configured with an adaptable jitter mode and an initial jitter delay of 55 ms:

```
cnfcodecjtrdelay 8 2 55
```

Related Commands

Command	Description
dspscodecjtrdelays	Displays the configured codec jitter delay modes and associated jitter initial delays.

cnfcodecneg

To configure the priority order of the lists of codec list priority order, use the **cnfcodecneg** command.

cnfcodecneg <codecNegOpt>

Syntax Description	<p><i>codecNegOpt</i> The codec list priority scheme. Values are</p> <ul style="list-style-type: none"> • 1 = Local connection option (LCO) list, remote Session Description Protocol (SDP) data list, local MIB • 2 = LCO list, local MIB, remote SDP data list • 3 = Remote SDP data list, LCO list, local MIB • 4 = Remote SDP data list, local MIB, LCO list • 5 = Local MIB, LCO list, remote SDP data list • 6 = Local MIB, remote SDP data list, LCO list
---------------------------	---

Command Modes VoIP switching/VoIP trunking, AAL1 switching, VoIP and AAL1 SVC

Usage Guidelines Codec lists include the following:

- Call agent provided list in a local connection option (LCO)
- Remote gateway provided list in the Session Description Protocol (SDP) data
- Local MIB provided list

Examples The following example shows that the LCO list is the first priority, SDP data list is the second, and the list from the local MIB is the last priority:

```
cnfcodecneg 1
```

Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>dspscodecneg</td> <td>Displays the codec negotiation option.</td> </tr> </tbody> </table>	Command	Description	dspscodecneg	Displays the codec negotiation option.
Command	Description				
dspscodecneg	Displays the codec negotiation option.				

cnfcodecparams

To configure codec parameters—codec packetization period, preference, Internet Assigned Numbers Authority (IANA) registered codec type and xGCP codec string—for AAL1 and IP calls, use the **cnfcodecparams** command.

```
cnfcodecparams <codecType> <pktPeriod> [/<codecPreference> <codecString>
<ianaCodecNum>]
```

Syntax Description	
<i>codecType</i>	Type of coding/decoding to be performed on the data stream. Values are <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)
<i>pktPeriod</i>	Packetization period (defined in milliseconds). Values are <ul style="list-style-type: none"> • 10 (Default for all codecs except G.723) • 20 • 30 (Default for G.723) • 40 • 60
<i>/codecPreference/</i>	(Optional) Preference level of the codec you identified with the <i>codecType</i> argument value. Values are <ul style="list-style-type: none"> • 0 = Ignore preference <p>Note A preference value of 0 results in the codec being excluded from the list of supported codecs during codec negotiation via xGCP.</p> <ul style="list-style-type: none"> • Range of 1 (highest) to 13 (lowest)
<i>/codecString/</i>	(Optional) The xGCP codec string. Range is 1–20 ASCII characters.
<i>/ianaCodecNum/</i>	(Optional) IANA registered codec type. Range is 0–96.

Command Modes VoIP switching/VoIP trunking, AAL1 switching, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines The packetization period parameter is required but the remaining parameters are optional. The parameters of any codec can be configured regardless of whether the current codec template supports that codec.

If you are using template 2, the G.726 and G.729 codec types are ignored and replaced with clear channel.

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

Examples The following example shows that the codec with identification number 3 is configured with a packetization period of 20 ms, has the highest priority, is not an IANA registered codec, and is represented by the string geeseven:

```
cnfcodeparams 3 20 1 geeseven 0
```

Related Commands There are no related commands.

cnfcodectmpl

To assign a codec template to an entire VISM card, use the **cnfcodectmpl** command.

```
cnfcodectmpl <template_number>
```

Syntax Description	
<i>template_number</i>	<p>Template number assigned to the current VISM card. Values are</p> <ul style="list-style-type: none"> • 1 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, and G.729ab codecs, and clear channel <p>Note Template 1 is limited to 145 DS0s for VISM and 248 DS0s for VISM-PR.</p> <ul style="list-style-type: none"> • 2 = G.711u and G.711a uncompressed codecs, and clear channel • 3 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, and G.729ab codecs and clear channel <p>Note Codec template number 3 is template 1 with T.38 support added. Template 3 is limited to 120 DS0s for VISM and 248 for VISM-PR.</p> <ul style="list-style-type: none"> • 4 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, G.729ab, G.723.1-H, G.723.1a-H, G.723.1-L, G.723.1a-L codecs and clear channel <p>Note Template 4 supports a maximum of 144 channels for VISM-PR.</p> <ul style="list-style-type: none"> • 5 = G.711u, G.711a, G.726-16K, G.726-24K, G.726-32K, G.726-40K, G.729a, and G.729ab and Lossless codecs <p>Note Template 5 supports a maximum of 192 DS0s for VISM-PR-T1 and 248 DS0s for VISM-PR-E1.</p>

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

Usage Guidelines	
	<p>The following list describes the maximum number of channels supported by the different templates:</p> <ul style="list-style-type: none"> • Template 1: <ul style="list-style-type: none"> – 145 for VISM T1/E1 – 192 for VISM-PR T1 – 248 for VISM-PR E1 • Template 2: <ul style="list-style-type: none"> – 192 for VISM T1 – 284 for VISM E1 • Template 3: <ul style="list-style-type: none"> – 120 for VISM T1/E1 – 192 for VISM-PR T1

- 248 for VISM-PR E1
- Template 4:
 - 64 for VISM T1/E1
 - 144 for VISM-PR T1/E1
- Template 5:
 - 192 for VISM-PR T1
 - 248 for VISM-PR E1

Templates define allowable voice encoding types.

The execution of this command requires your confirmation because the card resets.

This command is not allowed if CIDs are present.

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

Examples

The following example shows that template number 1 is assigned to the current VISM card:

```
cnfcodectmpl 1
The card will be reset, do you want to proceed (Yes/No)? y
```

Related Commands

Command	Description
dspscodectmpls	Displays all entries in the VISM card's codec template table.

cnfcompsize

To configure the compression size, use the **cnfcompsize** command.

```
cnfcompsize <packetSize>
```

Syntax Description

<i>packetSize</i>	Compressed packet size. Values are 80 and 160 bytes.
-------------------	--

Command Modes

AAL1 switching and VoIP and AAL1 SVC

Usage Guidelines

Follow standard CLI procedures when using this command.

The following example shows the compressed packet size as 80 bytes:

```
cnfcompsize 80
```

The terminal display does not indicate a response to this command.

Related Commands

Command	Description
dspcarddsp	Displays all current card-level parameters for ECAN and voice compression DSPs.

cnfcompvad

To enable or disable voice activity detection (VAD) on a T1 or E1 line, use the **cnfcompvad** command.

```
cnfcompvad <line_number> <voiceDetection>
```

Syntax Description	<i>line_number</i>	Line number of the line on which to configure VAD. Range is 1–8.
	<i>voiceDetection</i>	Value to enable or disable VAD. <ul style="list-style-type: none">• 1 = Enable• 2 = Disable

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

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows that line number 3 does not have VAD enabled:

```
cnfcompvad 3 2
```

Related Commands There are no related commands.

cnfcon

To configure a connection between a VISM card and an MGX 8000 Series platform PXM card, use the **cnfcon** command.

```
cnfcon <LCN> <PCR> <service_type> [/<SCR_ingress> <MBS_ingress>]
```

Syntax Description	
<i>LCN</i>	Logical channel number of the connection. Range is 131–510.
<i>PCR</i>	Peak cell rate (PCR) described in cells per second. Ranges are <ul style="list-style-type: none"> • 1–400 = Signaling PVCs in AAL2 trunking mode • 1–20000 = AAL5 control PVC • 1–50000 = T1 AAL2 bearer PVCs • 1–60000 = E1 AAL2 bearer PVCs • 1–96000 = AAL5 bearer PVC <p>Note If the <i>service_type</i> argument value is a variable bit rate (VBR), the <i>PCR</i> argument value must be 15 or greater.</p>
<i>service_type</i>	Service type. Values are <ul style="list-style-type: none"> • 1 = Constant bit rate (CBR) • 2 = Variable bit rate real time—rt-VBR • 3 = Variable bit rate non-real time—nrt-VBR • 4 = rt-VBR3 • 5 = rt-VBR2 • 6 = nrt-VBR • 7 = nrt-VBR <p>Note For VISM-PR to RPM-PR connections, use values 4–7.</p>
<i>/SCR_ingress/</i>	(Optional) Sustainable cell rate (SCR). Range is from 15 to the value you configured for the <i>PCR</i> argument value. <p>Note This argument value is required if the <i>service_type</i> argument value is in the range 2–7.</p>
<i>/MBS_ingress/</i>	(Optional) Maximum burst size (MBS)—maximum number of cells transmitted at the peak cell rate. Range is from 1 cell to 10 times the value you configured for the <i>SCR_ingress</i> argument value. <p>Note This argument value is required if the <i>service_type</i> argument value is in the range 2–7.</p>

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

Usage Guidelines Follow standard CLI procedures when using this command.

Examples

The following example shows that an LCN 160 connection is configured as CBR, with a peak cell rate of 20000 cps, a sustained cell rate of 5000 cps, and a maximum burst rate of 10000 cps:

```
cnfcon 160 20000 1 5000 10000
```

Related Commands

Command	Description
addcon	Adds a PVC connection between a VISM card and any SM or PXM card.
delcon	Deletes a PVC connection between a VISM card and an MGX 8000 Series platform PXM card.
dspvismparam	Displays the current VISM card configuration.

cnfconcac

To configure connection admission control (CAC) on a previously added connection, use the **cnfconcac** command.

```
cnfconcac <LCN> <mastership>
```

Syntax Description

<i>LCN</i>	Logical channel number (LCN) of the connection. Range is 131–510.
<i>mastership</i>	Connection type. Values are <ul style="list-style-type: none"> • 1 = Master (Default) • 2 = Slave

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

Before using this command, enable CAC at the card level by executing the **cnfcac** command. If the PVC has been configured as master, CAC functionality is applied to the master end of the PVC only.

Examples

The following example shows that CAC is configured at the master end of LCN 131:

```
cnfconcac 131 1
```

Related Commands

Command	Description
cnfcac	Enables or disables the CAC feature on a VISM card.
dspeoncac	Displays CAC configuration data for a connection.

cnfconcacparams

To configure connection admission control (CAC) features on a PVC, use the **cnfconcacparams** command.

```
cnfconcacparams <LCN> <VADTolerance> <VADDutyCycle>
```

Syntax Description	<i>LCN</i>	Logical channel number (LCN) of the connection. Range is 131–510.
	<i>VADTolerance</i>	VAD tolerance—the expression for VAD “over-subscription drop ratio” where: tolerance = 10000 x over-subscription drop ratio (expressed as a percentage). A typical value for VAD tolerance is 10. Some examples are: <ul style="list-style-type: none"> • 10000 (tolerance) = 1% (over subscription drop ratio) • 100 = 0.01% • 10 = 0.001% • 1 = 0.0001% Range is 0–10000. Default is 100.
	<i>VADDutyCycle</i>	VAD duty cycle—the ratio of speech and holdover duration to total duration expressed as a percentage. Holdover is the period after silence begins and silence suppression is turned on. In VISM, the holdover time is 250 ms. A typical value for this parameter is 61 which means that 61% of the time is taken by speech and holdover. Range is 1–99. Default is 61.
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking	
Usage Guidelines	Follow standard CLI procedures when using this command.	
Examples	The following example shows that VAD is configured on LCN 150 with a VAD tolerance of 10 and a VAD duty cycle of 61: <pre>cnfconcacparams 150 10 61</pre>	
Related Commands	Command	Description
	cnfcac	Enables or disables the CAC feature on a VISM card.

cnfconprotect

To configure protection on a PVC, use the **cnfconprotect** command.

```
cnfconprotect <LCN> <protection> <lock_state> <fallback_LCN>
```

Syntax Description	LCN	Primary logical channel number of the connection (PVC). Range is 131–510.
	<i>protection</i>	Value to enable or disable PVC protection. <ul style="list-style-type: none"> • 1 = Protected • 2 = Unprotected
	<i>lock_state</i>	PVC lock state. Values are <ul style="list-style-type: none"> • 1 = Unlock • 2 = Lock
	<i>fallback_LCN</i>	Secondary (fallback) logical channel number of the connection (PVC). Range is 131–510.

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

Usage Guidelines Before using this command, add the primary and secondary PVCs by executing the **addcon** command. Ensure that both channels have the same peak cell rate (*PCR*) argument value.

Protect the primary channel using the **cnfconprotect** command and configure the secondary (fallback) LCN.

The primary channel can be locked, so it is inoperative and forces a switchover to the secondary channel. If the primary channel is locked and the secondary channel fails, the connection fails.

If the primary PVC is protected, automatic switchover to a specified secondary PVC occurs if a primary PVC fails.

A protected channel cannot be deleted. To delete the channel, use the **cnfconprotect** command to make the primary channel unprotected, delete the secondary channel, and then delete the primary channel.

Examples The following example shows that LCN 132 is protected and unlocked, and LCN 217 is the secondary (fallback) LCN:

```
cnfconprotect 132 1 1 217
```

Related Commands There are no related commands.

cnfconvbdpol

To configure the voice band data (VBD) policies for fax/modem upspeed connection admission control (CAC) failure and fax/modem carrier loss for calls added to a particular IP or AAL2 LCN, use the **cnfconvbdpol** command.

```
cnfconvbdpol <LCN> <CarrierLossPol> <CACRejPol>
```

Syntax Description

<i>LCN</i>	Logical channel number (LCN) of the connection. Range is 131–510.
<i>CarrierLossPol</i>	Carrier loss policy. Values are <ul style="list-style-type: none"> • 1 = Revert to the previous codec • 2 = Maintain the upspeed codec • 3 = Unspecified (Default)
<i>CACRejPol</i>	CAC rejection policy. Values are <ul style="list-style-type: none"> • 1 = Delete the connection • 2 = Maintain the connection • 3 = Unspecified (Default)

Command Modes

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

Usage Guidelines

If you select 3 (unspecified) for the *CarrierLossPol* or *CACRejPol* argument values, the card level default are used.

Examples

The following example shows that LCN 131 is configured with a carrier loss policy of 1 (if carrier is lost, the LCN reverts to the previous codec) and a CAC rejection policy of 2 (the LCN connection is maintained):

```
cnfconvbdpol 131 1 2
```

Related Commands

Command	Description
cnfconccapol	Configures the policies for fax/modem upspeed CAC failure and fax/modem carrier loss for calls added to a particular IP or AAL2 LCN.

cnfconvcci

To associate a virtual circuit connection identifier (VCCI) and a remote address with an LCN, use the **cnfconvcci** command.

```
cnfconvcci <lcn> <vcci> <farend_addr_type> |<farend_addr>|
```

Syntax Description

<i>lcn</i>	Logical channel number of the connection. Range is 131–510.
<i>vcci</i>	VCCI number. Range is 0–65535.
<i>farend_addr_type</i>	Address type of the VCCI. Values are <ul style="list-style-type: none"> • 1 = Not applicable <p>Note This address type disassociates a VCCI, far end address type, and far end address from an LCN.</p> <ul style="list-style-type: none"> • 2 = NSAP (20-byte hexadecimal address) • 3 = E.164 (1–15-byte decimal address) • 4 = Gateway ID (1- to 64-byte ASCII character address) • 5 = Unspecified
<i>/farend_addr/</i>	(Optional) Far end IP address. This argument is optional if the <i>farend_addr_type</i> value is 1 or 5. This argument is mandatory if the <i>farend_addr_type</i> value is 2, 3, or 4. <ul style="list-style-type: none"> • E.164 farend address —Numeric value. Range is 1–15 characters, each 0–9. • GW ID farend address—ASCII value. Range is 1–64 characters. • NSAP farend address—Value is 20 bytes binary (in hex) needs 40 hexadecimal (0 - 9, A - F) characters to be typed in.

Command Modes

Switched AAL2 PVC

Usage Guidelines

The VCCI number does not need to be unique for the not applicable (1) address type, and the far end address is not used.

The combination of VCCI number and far end address must be unique for the following address types:

- NSAP (2)
- E.164 (3)
- Gateway ID (4)

The VCCI number must be unique for the unspecified (5) address type, even though the far end address is not used.

Examples

The following example shows that LCN 133 is associated with a VCCI of 133 with an NSAP address:

```
cnfconvcci 131 133 2
```

Related Commands

Command	Description
dspcon	Displays the parameters for a specified LCN.
dspvccis	Displays the associated values for the LCN, VCCI, address type, and address.

cnfdef tos

To configure the type of service (ToS) parameters for both control and bearer IP packets, use the **cnfdef tos** command.

```
cnfdef tos <control_precedence> <control_tos> [bearer_precedence] <bearer_tos>
```

Syntax Description

<i>control_precedence</i>	Control precedence. Range is 0–7 (both inclusive). Default is 3.
<i>control_tos</i>	Control ToS (conforms to RFC 1349). Values are <ul style="list-style-type: none"> • 0 = Default • 1 • 2 • 4 • 8
<i>/bearer_precedence/</i>	(Optional) Bearer precedence (conforms to RFC 791). Range is 0–7 (both inclusive). Default is 5.
<i>/bearer_tos/</i>	(Optional) Bearer ToS. Values are <ul style="list-style-type: none"> • 0 = Default • 1 • 2 • 4 • 8

Command Modes

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

Usage Guidelines

The ToS bearer parameters—configured with the *bearer_precedence* and *bearer_tos* arguments—are used during call setup in cases where the parameters are not supplied by the call agent. If you do not use this command, the card level default values are applied.

Examples

The following example shows that bearer IP packets are configured with a control precedence of 3 and a control ToS of 2, and the control IP packets are configured with a bearer precedence of 2 and a bearer ToS of 4:

```
cnfdef tos 3 2 2 4
```

Related Commands

There are no related commands.

cnfdisc timers

To specify the wait delay times for the disconnected procedure, restart in progress command—initial, minimum, and maximum timer values—use the **cnfdisc timers** command.

```
cnfdisc timers <TdInit> <TdMin> <TdMax>
```

Syntax Description

<i>TdInit</i>	Initial disconnect waiting delay time (defined in seconds). Range is 1–100 secs.
<i>TdMin</i>	Minimum disconnect waiting delay time (defined in seconds). Range is 0–100 secs.
<i>TdMax</i>	Maximum disconnect waiting delay time (defined in seconds). Range is 1–5000 secs.

Command Modes

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

Usage Guidelines

Before you can use this command, execute the **cnfmgcp protocol** command and select the disconnect type method for Restart in Progress.

Examples

The following example shows that an initial disconnect waiting time of 30 seconds, a minimum disconnect waiting time of 0 seconds, and a maximum disconnect waiting time of 120 seconds is configured for the current VISM card:

```
cnfdisc timers 30 0 120
```

Related Commands

Command	Description
addmgcp protocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcp protocol	Configures call agent group protocol data.
cnfxgcp peer	Configures the UDP port number used to send gateway-initiated messages to the call agent.
delmgcp protocol	Deletes an MGCP from a specified call agent redundancy group.
dspdisc timers	Displays the Restart in Progress command disconnect type method wait delay times.

cnfdn

To configure the resolution type of a specified domain name, use the **cnfdn** command.

```
cnfdn <mg_domain_num> <Resolution_Type>
```

Syntax Description

<i>mg_domain_num</i>	Domain number used to identify the domain. Range is 1–11.
<i>Resolution_Type</i>	Resolution type to configure for the specified domain name. Values are <ul style="list-style-type: none"> • 1 = Internal only. You must statistically provision all IP addresses on the VISM card for the domain name. The VISM card does not resolve the domain name using an external domain name server (DNS). • 2 = External only. The VISM card attempts to resolve the domain name using an external DNS. Statistically configured IP addresses for this domain name are not used. • 3 = Internal first. The VISM card attempts to resolve the domain name using an external DNS. The VISM card uses the statistically provisioned IP addresses for this domain name before using IP addresses from external resolution. • 4 = External first. The VISM card attempts to resolve the domain name using an external DNS. The VISM card uses IP addresses from external resolution before using the statistically provisioned IP addresses.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the domain name represented by domain number 2 is configured for external-only resolution type:

```
cnfdn 2 2
```

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
adddnip	Adds the IP addresses for a domain name that you added by using the adddn command.
cnfdnssrvr	Designates a domain name as a DNS.
deldn	Deletes a domain name.
deldnnp	Deletes a statistically provisioned IP address of a domain name.
dspdallips	Displays all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card.

Command	Description
dsdnips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dsdns	Displays the configuration data of all domain names of a call agent.
dsdnssrvr	Displays the domain name of the configured DNS of the current VISM card.

cnfdnssrvr

To designate a domain name as a domain name server (DNS), use the **cnfdnssrvr** command.

cnfdnssrvr <*extDnsSrvrDn*>

Syntax Description

extDnsSrvrDn Domain name which you want to designate, or remove, as a DNS. Values are

- A text string in the range 1–64 alphanumeric characters.
- NULL—removes the configured DNS from VISM.

Note NULL is case sensitive.

Command Modes

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

Usage Guidelines

You must configure the *Resolution_Type* for internal-only resolution using the **adddn** command. Provision at least one IP address for the domain name using the **adddnip** command.

Examples

The following example shows that the callagent99 domain name is configured as the DNS:

```
adddn 1 callagent99 1
adddnip 1 callagent99 209.165.200.224
cnfdnssrvr callagent99
```

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
adddnip	Adds the IP addresses for a domain name that you added by using the adddn command.
cnfdn	Configures the resolution type of a specified domain name.
deldn	Deletes a domain name.
deldnrip	Deletes a statistically provisioned IP address of a domain name.
dspdnallips	Displays all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card.
dspdnrips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dspdns	Displays the configuration data of all domain names of a call agent.
dspdnssrvr	Displays the domain name of the configured DNS of the current VISM card.

cnfds0execdiag

To configure testing on an individual endpoint, use the **cnfds0execdiag** command.

```
cnfds0execdiag <line_number> <ds0_number> <execdiag>
```

Syntax Description	Parameter	Description
	<i>line_number</i>	Line number. Range is 1–8.
	<i>ds0_number</i>	DS0 number. <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
	<i>execdiag</i>	Value to enable testing on a DS0. <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that testing is enabled on DS0 1 on line 1.

```
cnfds0execdiag 1 1 1
```

Related Commands	Command	Description
	dspds0execdiag	Verifies that testing is enabled on a channel.

cnfds0gain

To configure the adjustable gain for a specified DS0, use the **cnfds0gain** command in the VoIP switching/trunking, switched AAL2 PVC, and AAL2 trunking operating modes.

```
cnfds0gain <line_number> <ds0_number> <input_gain> <output_attenuation>
```

Syntax Description	line_number	Line number of the DS0 that you want to configure the adjustable gain. Range is 1–8.
	ds0_number	DS0 number on which to configure adjustable gain. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
	input_gain	Input gain (defined in decibels). Range is -60–14 in increments of 10.
	output_attenuation	Output attenuation (defined in decibels). Range is 0–14 in increments of 10.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the VISM card line number 2, DS0 number 13, is configured with a -10 dB input gain value and a 60 dB output attenuation value:

```
cnfds0gain 2 13 -10 60
```

Related Commands	Command	Description
	cnfgain	Configures the adjustable gain for a VISM card.
	cnflngain	Configures the adjustable gain for all DS0s on a specified VISM card line.
	dspds0gain	Displays the adjustable gain values for a specified DS0.
	dspgain	Displays the adjustable gain for a specified VISM card.
	dsplngain	Displays the adjustable gain for a specified VISM card line.

cnfds0localcas

To configure a local channel associated signaling (CAS) 4-bit pattern for a T1 line and DS0, use the **cnfds0localcas** command.

```
cnfds0localcas <line_number> <ds0_number> <cas_value> <cas_bit_pattern>
```

Syntax Description

<i>line_number</i>	T1 line number on which to configure a local CAS bit pattern. Range is 1–8.
<i>ds0_number</i>	DS0 number on which to configure a local CAS bit pattern. Range is 1–24 for T1 lines.
<i>cas_value</i>	Value to enable or disable the local CAS pattern indicated by the <i>cas_bit_pattern</i> argument. Values are <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
<i>cas_bit_pattern</i>	The local 4-bit pattern expressed as a number in the range from 1 (default) to 15. The value specifies, in binary, the value of the A, B, C, and D signaling bits. <p>Note If local CAS is enabled, this argument is mandatory.</p>

Command Modes

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

Usage Guidelines

If a DS0 is configured for local CAS, the framer forces the CAS bits to a value defined by the *cas_bit_pattern* argument in this command.

This command is not allowed if any of the following conditions are present:

- The line signaling type is CAS.
- The line is not enabled.
- The DS0 is in a remote loop state.



Note

This command is only applicable to T1 lines.

Examples

The following example shows that T1 line 2, DS0 number 12 is configured with a local 4-bit pattern represented by a value of 3 (0011 in binary):

```
cnfds0localcas 2 12 1 3
```

Related Commands

Command	Description
dspsd0localcasstatus	Displays the currently configured local CAS status for a line and DS0.

cnfds0loop

To configure a loopback type for a specified line and DS0, use the **cnfds0loop** command.

```
cnfds0loop <line_number> <ds0_number> <lineloopback_type>
```

Syntax Description	<i>line_number</i>	Line number of the channel to be configured for a loopback type. Range is 1–8.
	<i>ds0_number</i>	DS0 number of the channel to be configured for a loopback type. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines (No signaling and CCS signaling) • 1–15 and 17–31 = E1 lines (CAS signaling) For VISM E1 cards, 16 is preallocated as the CAS signaling channel. <p>Note If the application requires CAS signaling, issue the cnflnsig command before adding the endpoints.</p>
	<i>lineloopback_type</i>	Type of loopback to be used on the channel. Values are <ul style="list-style-type: none"> • 1 = No loopback • 2 = Remote loopback • 3 = Local loopback

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the loopback type of line 2, DS0 12 is configured as remote:

```
cnfds0loop 2 12 2
```

Related Commands There are no related commands.

cnfds0musicthreshold

To configure the music on-hold threshold for a specified DS0, use the **cnfds0musicthreshold** command.

```
cnfds0musicthreshold <line_number> <ds0_number> <mthreshold>
```

Syntax Description	Parameter	Description
	<i>line_number</i>	Line number for which you want to configure the music on-hold threshold. Range is 1–8.
	<i>ds0_number</i>	DS0 number for which you want to configure the music on-hold threshold. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
	<i>mthreshold</i>	Music on-hold threshold (defined in decibels). Range is -70 to -30 dB.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the VISM card line number 2, DS0 number 30 is configured with a -45 dB music on-hold threshold value:

```
cnfds0musicthreshold 2 30 -45
```

Related Commands	Command	Description
	cnflnmusicthreshold	Configures the music on-hold threshold for all DS0s on a specified line.
	cnfmusicthreshold	Configures the music on-hold threshold value for the current VISM card.
	dspsds0musicthreshold	Displays the music on-hold threshold value for a specified DS0.
	dsplnmusicthreshold	Displays the music on-hold threshold values for the DS0s on a specified line.
	dsprmusicthreshold	Displays the music on-hold threshold values for the current VISM card.

cnfds0sidpacket

To enable or disable the generation of the silence indication detection (SID) packet when silence suppression is in active mode on the DS0, use the **cnfds0sidpacket** command.

cnfds0sidpacket <line_number> <ds0_number> <sidpacket>

Syntax Description

<i>line_number</i>	Line number. Range is 1–8.
<i>ds0_number</i>	DS0 number. <ul style="list-style-type: none"> 1–24 = T1 lines 1–31 = E1 lines
<i>sidpacket</i>	Value to enable the SID packet. <ul style="list-style-type: none"> 1 = Enable 2 = Disable

Command Modes

VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP Trunking/AAL2 Trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the SID enabled on DS0 1 on line 1:

```
cnfds0sidpacket 1 1 1
```

Related Commands

Command	Description
dspds0sidpacket	Shows whether or not the SID packet is enabled on the DS0.

cnfdspheartbeattimer

To configure the DSP to send a heartbeat message within a given period of time, use the **cnfdspheartbeattimer** command.

cnfdspheartbeattimer <Heart_beat_interval>

Syntax Description	<i>Heart_beat_interval</i> Timeout value. Values are 0 and 100–65535. Default is 0 which means that the heartbeat timer is disabled.				
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP Trunking/AAL2 trunking				
Usage Guidelines	Follow standard CLI procedures for this command.				
Examples	The following example shows the heartbeat interval as 0 (disabled). <pre>cnfdspheartbeattimer 0</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>dspheartbeattimer</td> <td>Displays the heartbeat status of the VISM card.</td> </tr> </tbody> </table>	Command	Description	dspheartbeattimer	Displays the heartbeat status of the VISM card.
Command	Description				
dspheartbeattimer	Displays the heartbeat status of the VISM card.				

cnfdynamicpayload

To enable or disable the dynamic payload on the current VISM card, use the **cnfdynamicpayload** command.

cnfdynamicpayload *dynamic_payload*

Syntax Description

<i>dynamic_payload</i>	Value to enable or disable dynamic payload on the current VISM card.
	<ul style="list-style-type: none"> • 1 = Enable • 2 = Disable

Command Modes

VoIP switching/VoIP trunking, AAL1 Switching, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines

When dynamic payload is enabled, the session description protocol (SDP) payload type is negotiated in the range from 96 to 127 during codec negotiation.

The payload type specified in the **addrtpcon**, **cnfrtpcon**, or **cnfvbdcode** command is passed to the digital signal processor (DSP) to modify its static payload types. When dynamic payload is disabled, the DSP uses the static payload type values for the codec.

Examples

The following example configures the dynamic payload feature on the current VISM card:

```
cnfdynamicpayload 1
```

Related Commands

Command	Description
addrtpcon	Adds a static RTP VoIP trunking connection.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfvbdcodec	Configures the VBD upspeed codec.
dspdynamicepayload	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.
dspvbdcodec	Displays the upspeed codec used for VBD.

cnfecanenable

To enable or disable echo cancellation on a line, use the **cnfecanenable** command.

cnfecanenable <lineNum> <ECANEnable>

Syntax Description	<p><i>lineNum</i> Line number of the line you want to enable or disable echo cancellation. Range is 1–8.</p> <hr/> <p><i>ECANEnable</i> Value to enable or disable echo cancellation.</p> <ul style="list-style-type: none"> • 1 = Disable • 2 = Enable 								
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP Trunking/AAL2 trunking								
Usage Guidelines	Follow standard CLI procedures for this command.								
Examples	<p>The following example shows that echo cancellation is enabled on line 2 of the current VISM card:</p> <pre>cnfecanenable 2 2</pre>								
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>cnfecanrec</td> <td>Configures the residual echo control for DSPs on a VISM card that is used for ECAN.</td> </tr> <tr> <td>cnfecantail</td> <td>Configures the maximum tail length for DSPs on a VISM card that is used for ECAN.</td> </tr> <tr> <td>dsplndsp</td> <td>Displays the DSP information for a line.</td> </tr> </tbody> </table>	Command	Description	cnfecanrec	Configures the residual echo control for DSPs on a VISM card that is used for ECAN.	cnfecantail	Configures the maximum tail length for DSPs on a VISM card that is used for ECAN.	dsplndsp	Displays the DSP information for a line.
Command	Description								
cnfecanrec	Configures the residual echo control for DSPs on a VISM card that is used for ECAN.								
cnfecantail	Configures the maximum tail length for DSPs on a VISM card that is used for ECAN.								
dsplndsp	Displays the DSP information for a line.								

cnfecanrec

To configure residual echo control for digital signal processors (DSPs) on a VISM card line that is used for echo cancellation, use the **cnfecanrec** command.

```
cnfecanrec <lineNum> <residualEchoControl>
```

Syntax Description

<i>lineNum</i>	Line number to configure with residual echo control. Range is 1–8.
<i>residualEchoControl</i>	Residual echo control for a VISM card line. Values are <ul style="list-style-type: none"> • 1 = Cancel only • 2 = Suppress residual • 4 = Comfort noise

Command Modes

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

Usage Guidelines

This command applies to DSPs processing data on a specified line.

Examples

The following example shows that line 1 of the current VISM card is configured with comfort noise residual echo control:

```
cnfecanrec 1 4
```

Related Commands

Command	Description
cnfecanenable	Enables or disables ECAN on a specified VISM card line.
cnfecantail	Configures the maximum tail length for DSPs on a VISM card that is used for echo cancellation.
dsplndsp	Displays the DSP information for a specified VISM card line.

cnfecantail

To configure the maximum tail length for digital signal processors (DSPs) on a VISM card that is used for echo cancellation, use the **cnfecantail** command.

cnfecantail <lineNum> <maximumTail>

Syntax Description

<i>lineNum</i>	Line number to configure maximum echo cancellation tail length. Range is 1–8.
<i>maximumTail</i>	Maximum tail length (defined in milliseconds). Values are <ul style="list-style-type: none"> • 24 • 32 (Default) • 48 • 64 • 80 • 96 • 112 • 128

Command Modes

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

Usage Guidelines

This command applies to DSPs processing data on a specified line.

Examples

The following example shows that line 3 of the current VISM card is configured with a maximum ECAN tail length of 96 ms:

```
cnfecantail 3 96
```

Related Commands

Command	Description
cnfecanenable	Enables or disables ECAN on a specified VISM card line.
cnfecanrec	Configures the residual echo control for DSPs on a VISM card that is used for ECAN.
dsplndsp	Displays the DSP information for a specified VISM card line.

cnfendptcadence

To configure cadence (digit tone) times for an endpoint, use the **cnfendptcadence** command.

```
cnfendptcadence <endptNum> <cadon> <cadoff>
```

Syntax Description	
<i>endptNum</i>	Endpoint number. Ranges are <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – 1–145 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 2: <ul style="list-style-type: none"> – 1–192 for T1 – 1–248 for E1 • For template number 3: <ul style="list-style-type: none"> – 1–120 for VISM – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1 • For template number 4: <ul style="list-style-type: none"> – 1–64 for VISM – 1–144 for VISM-PR • For template number 5: <ul style="list-style-type: none"> – 1–192 for VISM-PR T1 – 1–248 for VISM-PR E1
<i>cadon</i>	Length of time (defined in milliseconds) a digit tone is generated. Range is 2–9999. Default is 75.
<i>cadoff</i>	Length of time (defined in milliseconds) silence is maintained between digit tone generation. Range is 0–9999. Default is 75.

Command Modes VoIP switching/VoIP trunking, AAL2 trunking, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP Trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples

The following example shows that endpoint 20 is configured with 100 ms digit tone generation time length and 100 ms silence time length between generated tones:

```
cnfendptcadence 20 100 100
```

Related Commands

There are no related commands.

cnfendptdntsend

To configure the audit endpoint response to include the endpoint domain name and to set the maximum datagram size, use the **cnfendptdntsend** command.

```
cnfendptdntsend <dn_enable> <datagram_size>
```

Syntax Description

<i>dn_enable</i>	Value to include the endpoint name. <ul style="list-style-type: none"> 1 = Enable 2 = Disable
<i>datagram_size</i>	Maximum datagram size. Range is 0–20000.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example configures the response to the audit endpoint includes the endpoint name, and the maximum datagram size is 4095.

```
cnfendptdntsend 1 4095
```

Related Commands

Command	Description
dspendptdntsend	Displays the audit endpoint response naming format and maximum datagram size.

cnferl

To configure a digital signal processor (DSP) return echo loss value, use the **cnferl** command.

```
cnferl <DB_loss>
```

Syntax Description	<i>DB_loss</i> Echo return loss to be applied by echo cancellation DSPs. Values are <ul style="list-style-type: none">• 1 = 0 dB• 2 = -3 dB• 3 = -6 dB (Default)• 4 = -10 dB
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP Trunking/AAL2 trunking
Usage Guidelines	Follow standard CLI procedures when using this command.
Examples	The following example shows that a -6 dB echo return loss value is configured for the current VISM cards echo cancellation DSP: <pre>cnferl 3</pre>
Related Commands	There are no related commands.

cnfexecdiag

To configure all channel level testing, use the **cnfexecdiag** command.

cnfexecdiag <*execdiag*>

Syntax Description

<i>execdiag</i>	Value to enable channel level testing.
	<ul style="list-style-type: none"> • 1 = Enable • 2 = Disable

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows enabling all channel level testing.

```
cnfexecdiag 1
```

Related Commands

Command	Description
dspexecdiag	Displays all channel level parameters on the card.

cnfgain

To configure the adjustable gain for a VISM card, use the **cnfgain** command.

```
cnfgain <input_gain> <output_attenuation>
```

Syntax Description

<i>input_gain</i>	Input gain (defined in decibels). Range is -6 to 14.
<i>output_attenuation</i>	Output attenuation (defined in decibels). Range is 0 -14.

Command Modes

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

Usage Guidelines

This command allows you to configure the gain for an entire VISM card. The values you configure with this command are permanent and remain on the VISM card after any resets.

Examples

The following example shows that the current VISM card is configured with a -10-dB input gain value and a 6 dB output attenuation value:

```
cnfgain -10 6
```

Related Commands

Command	Description
cnfds0gain	Configures the adjustable gain for a specified DS0.
cnflngain	Configures the adjustable gain for all DS0s on a specified VISM card line.
dspds0gain	Displays the adjustable gain values for a specified DS0.
dspgain	Displays the adjustable gain for a specified VISM card.
dsplngain	Displays the adjustable gain for all DS0s on a specified VISM card line.

cnfgwis

To configure an out-of-service VISM card to the in-service state, use the **cnfgwis** command.

cnfgwis

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines This command causes an RSIP notification to be sent to the call agent.

Examples The following example shows that the current VISM card is configured to the in-service state:

```
cnfgwis
```

The VISM card prompt terminates with an *a* to indicate the in-service state:

```
NODENAME.1.9.VISM8.a
```

Related Commands	Command	Description
	cnfgwoos	Configures an in-service VISM card to the out-of-service state.

cnfgwoos

To configure an in-service VISM card to the out-of-service state, use the **cnfgwoos** command.

```
cnfgwoos <shutdown_method>
```

Syntax Description	<p><i>shutdown_method</i> Method of reaching the out-of-service state. Values are</p> <ul style="list-style-type: none"> • 2 = Forceful. Existing connections are deleted and the VISM card transitions to the “commandedOutOfService” state. New connection requests are rejected. • 3 = Graceful. Existing connections are not released and allowed to terminate naturally. Immediately after this command is executed, the VISM card transitions to the “pendingOutOfService state”. New connection requests are rejected. The VISM card transitions to the ‘commandedOutOfService’ state only when all ongoing connections are deleted by the call agent.
---------------------------	---

Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC
----------------------	---

Usage Guidelines	Associated call agents are notified of VISM card state changes with an RSIP notification.
-------------------------	---

Examples	The following example shows that the current VISM card is placed in the out-of-service state forcefully:
-----------------	--

```
cnfgwoos 2
```

The VISM card prompt terminates with an *s* to indicate the out-of-service (standby) state:

```
NODENAME.1.9.VISM8.s
```

Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>cnfgwis</td> <td>Configures an out-of-service VISM card to the in-service state.</td> </tr> <tr> <td>dspgwstate</td> <td>Displays the current user-configured service states of the gateway.</td> </tr> </tbody> </table>	Command	Description	cnfgwis	Configures an out-of-service VISM card to the in-service state.	dspgwstate	Displays the current user-configured service states of the gateway.
Command	Description						
cnfgwis	Configures an out-of-service VISM card to the in-service state.						
dspgwstate	Displays the current user-configured service states of the gateway.						

cnfjtrinitdelay

To configure the initial jitter buffer delay size, use the **cnfjtrinitdelay** command.

cnfjtrinitdelay <*jtr_initdelay*>

Syntax Description

<i>jtr_initdelay</i>	Jitter buffer size setting (defined in milliseconds). Ranges are <ul style="list-style-type: none"> For template numbers 1, 3, 4, and 5 range is 0–100 in increments of 10. For template number 2, range is 0–100 in increments of 5.
----------------------	---

Command Modes

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

Usage Guidelines

Determine the current jitter delay mode you configured with the **cnfjtrmode** command. If the mode is set to fixed (set by the command) the jitter buffer size is fixed at the value you indicate for the *jtr_initdelay* argument for the duration of the call.

If the mode is set to adaptive, the jitter buffer size is set initially to the value you indicate for the *jtr_initdelay* argument and the digital signal processor (DSP) adapts the jitter buffer size to an optimal size.

Changing the *jtr_initdelay* argument value does not affect existing channel identifiers (CIDs). The new value is sent to the DSPs only when CIDs are open.

[Table 7-11](#) lists the default codec type initial delay values in milliseconds.

Table 7-11 Codec Type Default Values

Codec Type	Delay Mode	Initial Delay (ms)
G.711u	Fixed	100
G.711a	Fixed	100
G.726-32K	Adaptive	60
G.729a	Adaptive	60
G.729ab	Adaptive	60
Clear channel	Fixed	100
G.726-16K	Adaptive	60
G.726-24K	Adaptive	60
G.726-40K	Adaptive	60
G.723.1-H ¹	Adaptive	60
G.723.1a-H ¹	Adaptive	60
G.723.1-L ¹	Adaptive	60
G.723.1a-L ¹	Adaptive	60
Lossless	Fixed	16

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

Examples

The following example shows that the jitter buffer size is set to 70 milliseconds:

```
cnfjtrinitdelay 70
```

Related Commands

Command	Description
cnfjtrmode	Sets the jitter delay algorithm to fixed or adaptive.
dspcarddsp	Displays all current card level parameters for ECAN and voice compression DSPs.
dsptcodecjtrdelays	Displays the configured codec jitter delay modes and associated jitter initial delays.

cnfjtrmode

To configure the jitter algorithm with a fixed or adaptive buffer, use the **cnfjtrmode** command.

```
cnfjtrmode <jtr_mode>
```

Syntax Description

<i>jtr_mode</i>	Jitter delay mode. Values are <ul style="list-style-type: none"> • 1 = Fixed. Cisco recommends fixed mode if latency jitter is constant. • 2 = Adaptive. Cisco recommends adaptive if latency jitter is variable.
-----------------	---

Command Modes

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

Usage Guidelines

Changing the *jtr_mode* argument value does not affect any existing CIDs. The value is sent to the DSPs only when CIDs are open.

Examples

The following example shows that the jitter delay mode is set to adaptive:

```
cnfjtrmode 2
```

Related Commands

Command	Description
cnfjtrinitdelay	Configures the jitter buffer size.
dspcarddsp	Displays all current card-level parameters for ECAN and voice compression DSPs.
dspscodecjtrdelays	Displays the configured codec jitter delay modes and associated jitter initial delays.

cnflapdretrans

To configure a maximum number of frame retransmissions for a previously added Link Access Protocol D channel (LAPD), use the **cnflapdretrans** command.

```
cnflapdretrans <line_number> <ds0_number> <N200>
```

Syntax Description

<i>line_number</i>	Line number of the D channel to be configured. Range is 1–8.
<i>ds0_number</i>	DS0 number that was specified in the addlapd command. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
<i>N200</i>	Maximum frame retransmissions. Range is 1–10. Default is 3.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that line 2, DS0 12, is configured with a maximum number of 10 frame retransmission attempts:

```
cnflapdretrans 2 12 10
```

Related Commands

Command	Description
cnflapdtimer	Configures two LAPD timers for a previously added LAPD.
cnflapdtype	Configures the various types of LAPD stacks for a previously added LAPD.
cnflapdwinsize	Configures the maximum number of outstanding (unacknowledged) I-frames.

cnflapdtimer

To configure two LAPD timers for a previously added Link Access Protocol D channel (LAPD), use the **cnflapdtimer** command.

```
cnflapdtimer <line_number> <ds0_number> <timer_T200> <timer_T203>
```

Syntax Description	
<i>line_number</i>	Line number of the D channel to be configured. Range is 1–8.
<i>ds0_number</i>	DS0 number that was specified in the adflapd command. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
<i>timer_T200</i>	T200 timer. Time (defined in milliseconds) between frame transmission initiations. Ranges are <ul style="list-style-type: none"> • 1000–1023000 for PRI—in increments of 50. Default is 1000. • 100–350 for GR-303—in increments of 50. Default is 150. <p>Note This value must be less than the value you specify for the <i>timer_T203</i> argument value.</p>
<i>timer_T203</i>	T203 timer. Maximum time (defined in milliseconds) allowed without a frame being exchanged. Ranges are <ul style="list-style-type: none"> • 1000–1023000 for PRI—in increments of 1000. Default is 10000. • 10000–300000 for GR-303—in increments of 10000. Default is 30000. <p>Note This value must be greater than the value you specify for the <i>timer_T200</i> argument value.</p>

Command Modes VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI command procedures.

Examples The following example shows that line 2, DS0 12, is configured with 10000 ms between frame transmission initiations (timer T200) and 20000 ms as a maximum time allowed without a frame being exchanged (timer T203):

```
cnflapdtimer 2 12 10000 20000
```

Related Commands	Command	Description
	cnflapdretrans	Configures a maximum number of frame retransmissions for a previously added LAPD.
	cnflapdtype	Configures the various types of LAPD stacks for a previously added LAPD.
	cnflapdwinize	Configures a maximum allowed number of outstanding (unacknowledged) I-frames on a previously added LAPD.

cnflapdtrunkpvc

To assign the permanent virtual circuit (PVC) trunk type that carries Link Access Protocol D channel (LAPD) messages for the current VISM card, use the **cnflapdtrunkpvc** command.

cnflapdtrunkpvc <Lapd_Trunk_PVC_Type>

Syntax Description

Lapd_Trunk_PVC_Type LAPD trunk PVC type. Values are

- 1 = Control
- 2 = Bearer (Default)

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the current VISM card is assigned the control PVC trunk type to carry LAPD messages:

```
cnflapdtrunkpvc 1
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudp trunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudp trunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudp trunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsprtptcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.

Command	Description
dsprtcon	Displays the configuration data of a specified static RTP VoIP trunking connection.
dsprtcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsprudp trunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudp trunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

cnflapdtype

To configure the various types of Link Access Protocol D channel (LAPD) stacks for a previously added LAPD, use the **cnflapdtype** command.

```
cnflapdtype <line_number> <ds0_number> <lapd_type>
```

Syntax Description

<i>line_number</i>	Line number of the D channel to be configured. Range is 1 to 8.
<i>ds0_number</i>	DS0 number that was specified in the addlapd command. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
<i>lapd_type</i>	Type of LAPD stack to configure on the specified line and DS0. Values are <ul style="list-style-type: none"> • 1 = CCITT • 3 = ATT5ESSPRA • 4 = ATT4ESS • 6 = NTDMS100PRA • 7 = VN2 or 3 • 8 = INSNet • 9 = TR6MFC • 10 = TR6PBX • 12 = AUSP • 13 = NIL • 14 = SSETSI • 15 = BC303TMC • 16 = BC303CSC • 17 = NTDMS250 • 18 = Bellcore • 19 = NI2 (Default)

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that line 2, DS0 12 is configured with the AUSP LAPD stack type:

```
cnflapdtype 2 12 12
```

Related Commands	Command	Description
	cnflapdretrans	Configures a maximum number of frame retransmissions for a previously added LAPD.
	cnflapdtimer	Configures two LAPD timers for a previously added LAPD.
	cnflapdwinsize	Configures a maximum number of outstanding (unacknowledged) I-frames for a previously added LAPD.

cnflapdwinsize

To configure a maximum number of outstanding (unacknowledged) I-frames, use the **cnflapdwinsize** command.

```
cnflapdwinsize <line_number> <ds0_number> <window_size>
```

Syntax Description	
<i>line_number</i>	Line number of the D channel to be configured. Range is 1–8.
<i>ds0_number</i>	DS0 number that was specified in the addlapd command. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines
<i>window_size</i>	Maximum number of outstanding (unacknowledged) I-frames that can be accumulated before sending an acknowledgment. Range is 1–127. Default is 7.

Command Modes VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that line 2, DS0 12 is configured with an LAPD window size of 10—a maximum number of 10 I-frames can be accumulated before sending an acknowledgment:

```
cnflapdwinsize 2 12 10
```

Related Commands	Command	Description
	cnflapdretrans	Configures a maximum number of frame retransmissions for a previously added LAPD.
	cnflapdtimer	Configures two LAPD timers for a previously added LAPD.
	cnflapdtype	Configures the various types of LAPD stacks for a previously added LAPD.

cnflinesabyte

To configure the SA bytes on a line, use the `cnflinesabyte` command in any of the operating modes.

The SA-byte is used to insert SA-bits (bits SA4–SA8) into a timeslot. The SA-bits are additional spare bits that can be used for synchronization.

```
cnflinesabyte <line_number> <sa_byte> <sa_value>
```

Syntax Description

<i>line_number</i>	Line number of the in the range from 1 to 8.
<i>sa_byte</i>	Type of SA-byte. <ul style="list-style-type: none"> • 1 = sa4-byte • 2 = sa5-byte • 3 = sa6-byte • 4 = sa7-byte • 5 = sa8-byte <p>Where SA4–SA8 bits are not used, configure the <i>sa_byte</i> to 1 on links crossing an international border.</p>
<i>sa_value</i>	SA value. Range is 0–255.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

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

```
cvmgmx1a.1.20.VISM8.a > cnflinesabyte 1 3 0
```

Related Commands

Command	Description
dsplinesabyte	Displays the transmit and receive SA buffers.

cnfln

To configure characteristics for a VISM card line, use the **cnfln** command.

```
cnfln <line_number> <line_code> <line_len> <clk_src> <line_type> <loop_detection>
|<circuit_identifier>|
```

Syntax Description

<i>line_number</i>	Line number with which to configure characteristics. Range is 1–8.
<i>line_code</i>	Line coding method. Values are <ul style="list-style-type: none"> • 2 = Bipolar 8-zero substitution (B8ZS) for T1 • 3 = High-density bipolar 3 (HDB3) for E1 • 4 = Alternate mark inversion (AMI) for T1 or E1
<i>line_len</i>	Line length. Values are <ul style="list-style-type: none"> • 8 = For E1 cards with an SMB back card • 9 = For E1 cards with an RJ48 back card • 10 = 0–131 feet for T1 • 11 = 131–262 feet for T1 • 12 = 262–393 feet for T1 • 13 = 393–524 feet for T1 • 14 = 524–655 feet for T1 • 15 = More than 655 feet for T1
<i>clk_src</i>	Clock source. Values are <ul style="list-style-type: none"> • 1 = Loop clock. The loop clock source is from the line specified by the <i>line_number</i> argument. The local clock source is from the MGX 8000 Series platform. • 2 = Local clock. The local clock source is from the MGX 8000 Series platform.



Note

See the “[Configuring the PXM1 and VISM/VISM-PR Cards Clocking Source](#)” section on page 6-18, the “[Expanded Clock Source Selection](#)” section on page 6-93, and [Appendix A](#), “[VISM/VISM-PR Card Clocking Options](#),” for clocking rules.

<i>line_type</i>	Line type. Values are <ul style="list-style-type: none"> • 1 = DSx1ESF • 2 = DSx1D4 • 3 = E1 • 4 = E1CRC • 5 = E1MF • 6 = E1MFCRC • 7 = E1 Clear • 8 = E1Q50 • 9 = E1Q50CRC
<i>loop_detection</i>	Loopback code detection. Values are <ul style="list-style-type: none"> • 1 = Disabled • 2 = Enabled (This value is not applicable to E1 lines.)
<i>/circuit_identifier/</i>	(Optional) Name of the circuit in ASCII format. Range is 1–64 characters.

Command Modes

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

Usage Guidelines

Before using the **cnfln** command, you must add the line indicated by the *line_number* argument value with the **addln** command. You must include all argument values when using this command; however, the *line_number* and *clk_src* arguments are the only relevant arguments for configuring the clocking source on your VISM cards.

Examples

The following example shows that line 2 is configured with HDB3 coding, SMB E1 back card line length, loop clocking, E1 line type, and loopback detection disabled:

```
cnfln 2 3 8 1 3 1
```

Related Commands

Command	Description
addln	Adds a T1 or E1 line to a VISM card.
delln	Deletes a DS1 line on a VISM card.
dspln	Displays the characteristics of a specified VISM card line.

cnflndigitorder

To assign the order in which automatic number identification (ANI) digits—the caller's number—and dialed number identification service (DNIS) digits—the called number—are dialed during an outgoing Feature Group D (FGD) call on the endpoints of a specified VISM card line, use the **cnflndigitorder** command.

```
cnflndigitorder <line_number> <line_digit_order>
```

Syntax Description

<i>line_number</i>	Line number for which to configure dialed digit order. Range is 1–8.
<i>line_digit_order</i>	ANI and DNIS digit order. Values are <ul style="list-style-type: none"> 1 = ANI digits followed by DNIS digits. 2 = DNIS digits followed by ANI digits.

Command Modes

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

Usage Guidelines

The ANI and DNIS digits are sent as part of the MGCP setup message.

Examples

The following example shows that the line number 7 is assigned a digit order of DNIS digits first, followed by ANI digits, for digits dialed during an outgoing FGD call:

```
cnflndigitorder 7 2
```

Related Commands

Command	Description
cnfcasflashtime	Configures the minimum and maximum CAS on-hook time periods for incoming flash hooks on a specified endpoint.
cnfcasglareattrib	Configures the direction of CAS calls and the glare policy for a specified endpoint.
cnfcaspackage	Configures MGCP packages to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
delxgcppersistevt	Deletes a persistent xGCP event.
dspcasglareattrib	Displays the direction of CAS calls and the glare policy for a specified endpoint.
dspcaspackage	Displays the MGCP packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
dspcastimers	Displays the currently configured CAS timers for a specified endpoint.
dsplndigitorder	Displays the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.

cnflnexecdiag

To configure channel level testing on an individual line, use the **cnflnexecdiag** command.

```
cnflnexecdiag <line_number> <execdiag>
```

Syntax Description

<i>line_number</i>	Line number in the range 1–8.
<i>execdiag</i>	Value to enable channel level testing on the line. <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows channel level testing enabled on line 1.

```
cnflnexecdiag 1 1
```

Related Commands

Command	Description
dsplnexecdiag	Displays the channel level testing status of an individual line.

cnflngain

To configure the adjustable gain for all DS0s on a specified VISM card line, use the **cnflngain** (configure line gain) command.

```
cnflngain <line_number> <input_gain> <output_attenuation>
```

Syntax Description

<i>line_number</i>	Line number that you want to configure the adjustable gain. Range is 1–8.
<i>input_gain</i>	Input gain (defined in decibels). Range is –6 to 14.
<i>output_attenuation</i>	Output attenuation (defined in decibels). Range is 0–14.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the VISM card line number 2 is configured with a –10 dB input gain value and a 6 dB output attenuation value:

```
cnfgain 2 -10 6
```

Related Commands

Command	Description
cnfds0gain	Configures the adjustable gain for a specified DS0.
cnfgain	Configures the adjustable gain for a VISM card.
cnflngain	Configures the adjustable gain for a specified VISM card line.
dspds0gain	Displays the adjustable gain values for a specified DS0.
dspgain	Displays the adjustable gain for a specified VISM card.

cnflnis

To configure an out-of-service VISM card line to the in-service state, use the **cnflnis** command.

```
cnflnis <line_number>
```

Syntax Description

line_number Line number you want to bring to the in-service state. Range is 1–8.

Command Modes

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

Usage Guidelines

The configured in-service state is not maintained after a VISM card reboot. If you reboot a VISM card previously configured to the in-service state with this command, you must use this command again to configure the associated lines back to the in-service state, as needed.

Examples

The following example shows that line 2 is configured with the in-service state:

```
cnflnis 2
```

Related Commands

Command	Description
cnflnoos	Configures an in-service VISM card line to the out-of-service state.
dspgwstate	Displays the current user-configured service state of the gateway.
dsplnstate	Displays the service state of a VISM card line with respect to the xGCP protocol.

cnflnmusicthreshold

To configure the music on-hold threshold for all DS0s on a specified line, use the **cnflnmusicthreshold** command.

```
cnflnmusicthreshold <line_number> <mthreshold>
```

Syntax Description

<i>line_number</i>	Line number for which you want to configure the music on-hold threshold. Range is 1–8.
<i>mthreshold</i>	Music on-hold threshold (defined in decibels). Range is –70 to –30.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the line number 3 DS0s are configured with –45 dB music on-hold threshold:

```
cnflnmusicthreshold 3 -45
```

Related Commands

Command	Description
cnfds0musicthreshold	Configures the music on-hold threshold for a specified DS0.
cnfmusicthreshold	Configures the music on-hold threshold value for the current VISM card.
dspsds0musicthreshold	Displays the music on-hold threshold value for a specified DS0.
dsplnmusicthreshold	Displays the music on-hold threshold values for the DS0s on a specified line.
dspmusicthreshold	Displays the music on-hold threshold values for the current VISM card.

cnflnoos

To configure an in-service VISM card line to the out-of-service state, use the **cnflnoos** command in the VoIP switching/trunking operating mode.

```
cnflnoos <line_number> <shutdown_method>
```

Syntax Description

<i>line_number</i>	Line number you want to bring to the out-of-service state. Range is 1–8.
<i>shutdown_method</i>	VISM card's method of reaching the out-of-service state. Values are <ul style="list-style-type: none"> • 2 = Forceful. Existing connections are deleted and the VISM card transitions to the 'commandedOutOfService' state. New connection requests are rejected. • 3 = Graceful. Existing connections are not released and allowed to terminate naturally. Immediately after this command is executed, the VISM card transitions to the 'pendingOutOfService state'. New connection requests are rejected. The VISM card transitions to the 'commandedOutOfService' state only when all ongoing connections are deleted by the call agent.

Command Modes

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

Usage Guidelines

The configured in-service state is not maintained after a VISM card reboot. If you reboot a VISM card previously configured to the out-of-service state with this command, you must use this command again to configure the associated lines back to the out-of-service state, as needed.

Examples

The following example shows that line 3 is configured to the out-of-service state gracefully:

```
cnflnoos 3 3
```

Related Commands

Command	Description
cnflnis	Configures an out-of-service VISM card line to the in-service state.

cnflnringback

To configure the ringback tone method for a specified line on the current VISM card, use the **cnflnringback** command.

```
cnflnringback <line_number> <ring_back_method>
```

Syntax Description

<i>line_number</i>	Line number for which you want to configure the ringback method. Range is 1–8.
<i>ring_back_method</i>	Ringback tone method. Values are <ul style="list-style-type: none"> 1 = Proxy (Default) The VISM sends the appropriate packet—Named Signaling Event (NSE), NSE, Network Transmission Element (NTE), or AAL2 type 3—for the ringback tone to the originating VISM which generates the ringback tone toward the TDM network. 2 = Inband The VISM generates the inband ringback tone toward the originating VISM over the packet network and the originating VISM plays the ringback tone.

Command Modes

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

Usage Guidelines

The ringback method is used when a call agent requests the terminating VISM to play the ringback tone remotely (toward the packet network).

Examples

The following example shows that the current VISM card line 4 is configured with the inband ringback tone method:

```
cnflnringback 4 2
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimeout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.

Command	Description
dsplntonetimeout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

cnflnsidpacket

To enable or disable the generation of the silence indication detection (SID) packet when silence suppression is in active mode on the line, use the **cnflnsidpacket** command.

cnflnsidpacket <line_number> <sidpacket>

Syntax Description	line_number	Line number in the range 1–8.
	sidpacket	Value to enable the SID packet. <ul style="list-style-type: none"> • 1 = Enable (default) • 2 = Disable

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the SID packet is enabled on line 1.

```
cnflnsidpacket 1 1
```

Related Commands	Command	Description
	dsplnsidpacket	Shows the line and DS0 in which the SID packet is enabled.

cnflnsig

To configure the signaling mode for a VISM card line, use the **cnflnsig** command.

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

Syntax Description

<i>line_number</i>	Line number you want to bring to the out-of-service state. Range is 1–8.
<i>signaling_type</i>	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

Command Modes

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

Usage Guidelines

You are required to 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 *line_number* argument.

This command is not allowed when CIDs or CCS channels are present.

You must configure the line type as either E1MF or E1MFCRC for E1 lines; otherwise, this command is invalid and does not process.

Examples

The following example shows that line 3 is configured for CCS:

```
cnflnsig 3 2
```

Related Commands

Command	Description
dspln	Displays the characteristics of a VISM card line.

cnflntoneplan

To assign a built-in or provisional tone plan to a specified VISM card line, use the **cnflntoneplan** command.

```
cnflntoneplan <line_number> <tone_plan_region> <tone_plan_version>
```

Syntax Description

<i>line_number</i>	Line number for which you want to assign a tone plan. Range is 1–8.
<i>tone_plan_region</i>	Tone plan country or region which you want to assign to a VISM card line. Range is 1–64 alphanumeric characters and can contain underscores (_). This value is case sensitive.
<i>tone_plan_version</i>	Tone plan version number of the tone plan country or region you want to assign to a VISM card line. Range is 1–65535.

Command Modes

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

Usage Guidelines

If you are assigning a provisional tone plan to a VISM card line, you must use the **addtoneplan** command before you use this command. The command allows you to assign a new tone plan (overwrite a previous configuration) to a VISM card line.

Examples

The following example shows that the VISM card line 2 is assigned the tone plan identified by tone plan region sing_3 and tone plan version 2:

```
cnflntoneplan 2 sing_3 2
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntonetimout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.

Command	Description
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

cnflntonetimout

To modify the timeout periods of call progress tones supported by VISM on a specified line, use the **cnflntonetimout** command.

```
cnflntonetimout <line_number> <ring_remRBack_TO> <local_RBack_TO> <busy_tone_TO>
<reorder_tone_TO> <dial_tone_TO> <stutter_dial_tone_TO> <offhook_tone_TO>
```

Syntax Description

<i>line_number</i>	Line number for which you want to modify tone timeout periods. Range is 1–8.
<i>ring_remRBack_TO</i>	Remote ringback tone timeout period (defined in seconds). Range is 0–3600. Default is 180.
<i>local_RBack_TO</i>	Local ringback tone timeout period (defined in seconds). Range is 0–3600. Default is 180.
<i>busy_tone_TO</i>	Busy tone timeout period (defined in seconds). Range is 0–3600. Default is 30.
<i>reorder_tone_TO</i>	Reorder tone timeout period (defined in seconds). Range is 0–3600. Default is 30.
<i>dial_tone_TO</i>	Dial tone timeout period (defined in seconds). Range is 0–3600. Default is 16.
<i>stutter_dial_tone_TO</i>	Stutter dial tone timeout period (defined in seconds). Range is 0–3600. Default is 16.
<i>offhook_tone_TO</i>	Off-hook tone timeout period (defined in seconds). Range is 0–3600. Default is 5.

Command Modes

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

Usage Guidelines

You can configure timeout periods of the following tones:

- Ringback
- Busy
- Reorder (also known as the fastbusy or the network congestion tone)
- Dial
- Stutter dial
- Offhook alert



Note

A tone timeout argument value set to 0 indicates an infinite timeout—the tone will play indefinitely unless it is stopped by an event.

Examples

The following example shows that the VISM card line number 7 is configured with a 200-second remote ringback tone timeout period, a 180-second local ringback tone timeout period, a 210-second busy tone timeout period, a 400-second reorder tone timeout period, a 1000-second dial tone timeout period, a 2000-second stutter dial tone timeout period, and a 500-second offhook tone timeout period:

```
cnflntonetimout 7 200 180 210 400 1000 2000 500
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

cnflntrunkcond

To enable or disable trunk conditioning on a VISM card line if a network alarm is encountered, use the **cnflntrunkcond** command.

```
cnflntrunkcond <line_number> <trunkCondType>
```

Syntax Description

<i>line_number</i>	Line number for which you want enable or disable line conditioning. Range is 1–8.
<i>trunkCondType</i>	Line trunk conditioning status. Values are <ul style="list-style-type: none"> 1 = Enable. VISM performs trunk conditioning on each affected DS0 if an alarm occurs on the ATM side. 2 = Disable. VISM sends an alarm indication signal (AIS), blue alarm, or RAI to the line if an alarm occurs on the ATM side.

Command Modes

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

Usage Guidelines

Trunk conditioning consists of sending 0x7f or 0xff on the affected DS0s for T1 or E1 respectively. For T1, the idle code pattern is transmitted for 2 to 5 seconds followed by the seized code pattern, as specified in the **cnfcascode** command.

This command is not allowed if endpoints or CCS channels are enabled on the line.

Examples

The following example shows that line 2 is configured with line conditioning if an AAL2 alarm is encountered:

```
cnflntrunkcond 2 1
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudp trunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudp trunkrtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudp trunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.

Command	Description
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsrtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsrtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsrtpcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsrudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsrudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

cnflongdurationtimer

To configure the long duration timer, use the **cnflongdurationtimer** command.

The long duration is the elapse time, in hours, to indicate a connection has been established for a given period of time.

```
cnflongdurationtimer <timeout>
```

Syntax Description	<i>timeout</i> Long duration timer in the range 0–24 hours. The default time is one hour				
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC				
Usage Guidelines	Follow standard CLI procedures for this command.				
Examples	The following example shows the long duration timer configured to 1 hour. <pre>cnflongdurationtimer 1</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>dsplongdurationtimer</td> <td>Displays the long duration timer values.</td> </tr> </tbody> </table>	Command	Description	dsplongdurationtimer	Displays the long duration timer values.
Command	Description				
dsplongdurationtimer	Displays the long duration timer values.				

cnfmaxconfnum

To configure the maximum number of concurrent three-way conferences that the VISM/VISM-PR card to support, use the **cnfmaxconfnum** command.

cnfmaxconfnum <num>

Syntax Description

<i>num</i>	Number of conferences. Range is 0–50. Default is 0.
------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the VISM/VISM-PR card does not support three-way conferences.

```
cnfmaxconfnum 0
```

Related Commands

Command	Description
dspmaxconfnum	Displays the maximum number of three-way conferences.

cnfmgcgrpentry

To modify the call agent priority level of a call agent within a call agent redundancy group, use the **cnfmgcgrpentry** command.

```
cnfmgcgrpentry <Red_Group_Num> <mgcRedGrpMgcNum> <mgcRedGrpPref>
```

Syntax Description

<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>mgcRedGrpMgcNum</i>	Call agent identification number. Range is 1–8.
<i>mgcRedGrpPref</i>	Call agent priority value. Range is 1 (highest) to 8 (lowest).

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the call agent redundancy group number 1, call agent number 2, is configured with a priority level of 4:

```
cnfmgcgrpentry 1 2 4
```

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspmgcgrps	Displays all configured call agent redundancy groups.
dspsrcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

cnfmgcgrpparam

To modify a call agent redundancy group state change notification policy and priority level, use the **cnfmgcgrpparam** command.

```
cnfmgcgrpparam <Red_Group_Num> <mgcRedGrpStateChgNtfy> [<mgcRedGrpPriority>]
```

Syntax Description

<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>mgcRedGrpStateChgNtfy</i>	State change notification. This parameter determines if messages, such as RSIPs, are sent to notify the call agent of a VISM card state change. <ul style="list-style-type: none"> 1 = Enable (Default) 2 = Disable
<i>mgcRedGrpPriority</i>	(Optional) Call agent priority value. It can be one of the following: <ul style="list-style-type: none"> 0 = No gateway initiated requests or commands are sent. Range is from 1 (highest) to 8 (lowest). Default is 1.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that call agent redundancy group number 1 is associated with the call agent and is assigned a priority level of 5:

```
cnfmgcgrpparam 1 1 5
```

Related Commands

Command	Description
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.

Command	Description
dspmgcgrps	Displays all configured call agent redundancy groups.
dspsrcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

cnfmgcgrpprotocol

To configure a call agent redundancy group protocol for a previously configured redundancy group, use the **cnfmgcgrpprotocol** command.

```
cnfmgcgrpprotocol <Red_Group_Num> <protocol_number> [/<Qrntn_Persist> <Qrntn_Def>
<Sign_OnOff> <Prov_Resp> <RspAck_Attr> <Disc_Proc> <Cancel_Graceful>]
```

Syntax Description	
<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>protocol_number</i>	Protocol number. Values are <ul style="list-style-type: none"> • 1 = MGCP 0.1 • 2 = SGCP 1.1+ • 3 = SRCP 1.0.2 • 4 = SGCP 1.5 • 5 = MGCP 1.0 • 6 = TGCP 1.0
<i>/Qrntn_Persist/</i>	(Optional) Value to set the quarantine handling method for persistent events. re <ul style="list-style-type: none"> • 1 = Quarantine persistent events (Default) • 2 = Do not quarantine persistent events
<i>/Qrntn_Def/</i>	(Optional) Value to set the default quarantine event handling method for each protocol. <ul style="list-style-type: none"> • 1 = Step, process (Default for MGCP 1.0 and TGCP 1.0) • 2 = Step, discard (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5) • 3 = Loop, process • 4 = Loop, discard <p>Note Step is one notification command is generated per notification request. Loop is multiple notification commands are generated per notification request.</p>
<i>/Sign_OnOff/</i>	(Optional) Value to set how the events are deleted. <ul style="list-style-type: none"> • 1 = Delete events from the previous list which are not present in the current list. (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5) • 2 = Delete events from the previous list, only if the event is present in the current list with a hyphen (-) as the parameter. (Default for MGCP 1.0 and TGCP 1.0)
<i>/Prov_Resp/</i>	(Optional) Value to enable or disable the sending of a provisional response. <ul style="list-style-type: none"> • 1 = Send (Default for MGCP 1.0 and TGCP 1.0) • 2 = Not send (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)

<i>/RspAck_Attr/</i>	(Optional) Value to enable or disable sending a response acknowledgment. <ul style="list-style-type: none"> • 1 = Send (Default for MGCP 1.0 and TGCP 1.0) • 2 = Not send (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<i>/Disc_Proc/</i>	(Optional) Value to enable or disable the disconnect method, which indicates that the endpoint has become disconnected and is now trying to establish connectivity. <ul style="list-style-type: none"> • 1 = Enable (Default for MGCP 1.0 and TGCP 1.0) • 2 = Disable (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)
<i>/Cancel_Graceful/</i>	(Optional) Value to enable or disable VISM cancelling a previously issued graceful restart command. <ul style="list-style-type: none"> • 1 = Send (Default for MGCP 1.0 and TGCP 1.0) • 2 = Not send (Default for MGCP 0.1, SGCP 1.1+, SRCP 1.0.2, and SGCP 1.5)

Command Modes

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

Usage Guidelines

Use this command to change the protocol for a redundancy group that has previously been assigned a protocol with the **addmgcrpprotocol** command.

Examples

The following example shows that redundancy group number 7 is assigned the SRCP 1.0.2 protocol, and quarantines persistent events with the loop, process handling method. All optional arguments are enabled.

```
cnfmgcrpprotocol 7 3 1 3 1 1 1 1 1
```

Related Commands

Command	Description
addmgcrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfdisctimers	Specifies the wait delay times for the disconnected procedure, restart in progress command—initial, minimum, and maximum timer values.
cnfxgcppeer	Configures the UDP port number used to send gateway-initiated messages to the call agent.
delmgcrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspdctimers	Displays the Restart in Progress command disconnect type method wait delay times.

cnfmidcalltimers

To configure the midcall dual tone multifrequency (DTMF) feature partial and critical timers for a specified VISM card line, use the **cnfmidcalltimers** command.

```
cnfmidcalltimers <line_number> <DTMF_Partial_Timer> <DTMF_Critical_Timer>
```

Syntax Description

<i>line_number</i>	Line number for which you want to configure midcall DTMF timers. Range is 1–8.
<i>DTMF_Partial_Timer</i>	Partial digit timer for midcall DTMF digit reporting (defined in seconds). Range is 10–10000. Default is 16.
<i>DTMF_Critical_Timer</i>	Critical digit timer for midcall DTMF digit reporting (defined in seconds). Range is 0–10000. Default is 4.

Command Modes

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

Usage Guidelines

Use this command for CAS and non-CAS endpoints when you want to use midcall DTMF digit reporting.

When you use this command, the partial digit timer starts when the first digit is entered, and restarts when each new digit is entered until a digit map match or mismatch occurs.

When you use a digit map, the critical digit timer starts when the last digit is received—when no more digits are required for a digit map match. When the time expires, the digit map match is assumed to be complete. When you are not using a digit map, the critical digit timer starts immediately (and not restarted) and is cancelled as soon as a digit is entered.

Examples

The following example shows that the current VISM card line number 3 is configured with a 20-second partial digit timer and a 4-second critical digit timer for midcall DTMF digit reporting:

```
cnfmidcalltimers 3 20 4
```

Related Commands

Command	Description
dspmidcalltimers	Displays the configured partial and critical timer values for midcall DTMF digit reporting.

cnfmusicthreshold

To configure the music on-hold threshold value for the current VISM card, use the **cnfmusicthreshold** command.

cnfmusicthreshold <*threshold*>

Syntax Description

<i>threshold</i>	Music on-hold threshold (defined in decibels). It can be in the range from -70 to -30 dB.
------------------	---

Command Modes

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

Usage Guidelines

This command allows you to adjust the threshold level detected by DSPs to interpret TDM side silence or voice.

Examples

The following example shows that the current VISM card is configured with a -45-dB music on-hold threshold value:

```
cnfmusicthreshold -45
```

Related Commands

Command	Description
cnfds0musicthreshold	Configures the music on-hold threshold for a specified DS0.
cnflnmusicthreshold	Configures the music on-hold threshold for all DS0s on a specified line.
dspds0musicthreshold	Displays the music on-hold threshold value for a specified DS0.
dsplnmusicthreshold	Displays the music on-hold threshold values for the DS0s on a specified line.
dspmusicthreshold	Displays the music on-hold threshold values for the current VISM card.

cnfnwcot

To configure VISM for a gateway-initiated network continuity test, use the **cnfnwcot** command.

cnfnwcot <*nwCotEnable*>

Syntax Description	<p><i>nwCotEnable</i> Value to enable or disable the VISM-initiated CO3 network continuity test.</p> <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default) 										
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC										
Usage Guidelines	This command configures VISM for gateway-initiated network continuity testing. When enabled, and after VISM receives the remote SDP information, VISM sends an Named Signaling Event (NSE) or AAL2 type 3 packet (CO3) towards the network. If the other gateway does not respond with a NSE/Type 3 packet (CO4), the connection is deleted. VISM interprets that the gateway initiated DLCX, with a reason code of “Network cont. failed,” is sent to the call agent.										
Examples	<p>The following example shows that VISM is configured for a gateway-initiated network continuity test:</p> <pre>cnfnwcot 1</pre>										
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>cnfco4timer</td> <td>Configures the bearer continuity test CO4 timer value.</td> </tr> <tr> <td>dspco4timer</td> <td>Displays the bearer continuity test CO4 timer value.</td> </tr> <tr> <td>dspnwcot</td> <td>Displays the status—enabled or disabled—of the gateway initiated network continuity test configuration for VISM.</td> </tr> <tr> <td>dspvismparam</td> <td>Displays the current VISM card configuration.</td> </tr> </tbody> </table>	Command	Description	cnfco4timer	Configures the bearer continuity test CO4 timer value.	dspco4timer	Displays the bearer continuity test CO4 timer value.	dspnwcot	Displays the status—enabled or disabled—of the gateway initiated network continuity test configuration for VISM.	dspvismparam	Displays the current VISM card configuration.
Command	Description										
cnfco4timer	Configures the bearer continuity test CO4 timer value.										
dspco4timer	Displays the bearer continuity test CO4 timer value.										
dspnwcot	Displays the status—enabled or disabled—of the gateway initiated network continuity test configuration for VISM.										
dspvismparam	Displays the current VISM card configuration.										

cnfoamloopcnt

To configure the threshold for the number of consecutive OAM end-to-end loopback response cells that must be lost before a PVC is placed into alarm due to a OAM end-to-end loopback failure, use the **cnfoamloopcnt** command.

cnfoamloopcnt *<count>*

Syntax Description

<i>count</i>	Number of consecutive OAM loopback response cells that must be lost before an OAM loopback failure causes a PVC to go into alarm. Range is 1–60. Default is 5.
--------------	--

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the OAM loop count configured to 60.

```
cnfoamloopcnt 60
```

Related Commands

Command	Description
dsfoamloopcnt	Displays the number of OAM loopback cells before an OAM loopback failure causes the PVC to go into alarm.

cnfoamparams

To configure the transmitted and received permanent virtual circuit (PVC) Operations, Administration, and Maintenance (OAM) cell parameters, use the **cnfoamparams** command.

```
cnfoamparams <oam_cell_gap> <retry_cnt> <recover_cnt>
```

Syntax Description

<i>oam_cell_gap</i>	Intercell gap—the time between cells (defined in milliseconds). Range is 10–5000 ms. Default is 500 ms.
<i>retry_cnt</i>	Number of cells that must be unacknowledged before a PVC is declared as failed. Range is 1–20. Default is 3.
<i>recover_cnt</i>	Recovery indication cell count—the number of cells that must be received before a PVC is considered recovered from a failure. Range is 1–20. Default is 5.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the transmitted and received OAM parameters are configured with a 20 ms intercell gap, 3 cell retry count, and a 5-cell recovery indication cell count:

```
cnfdpvcoamparams 20 3 5
```

Related Commands

Command	Description
dsfoamparams	Displays the transmitted and received PVC OAM cell parameters.

cnfplayouttimestamp

To enable or disable the playout timestamp, use the **cnfplayouttimestamp** command.

```
cnfplayouttimestamp <codecType> <timestamp> <jitter_initdelay>
```

Syntax Description		
<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 • 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 • 13 = G.723.1-L • 14 = G.723.1a-L • 15 = Lossless (VAD must be off)
<i>timestamp</i>	Value to enable playout timestamp.	<ul style="list-style-type: none"> • 1 = disable • 2 = enable
<i>jitter_initdelay</i>	Initial jitter delay (defined in milliseconds). Ranges are	<ul style="list-style-type: none"> • For codec templates 1, 3, 4, and 5—0–100 in increments of 10. • For codec template 2—0–100 in increments of 5. • For Lossless codec, range is 0–50.

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the G.729a codec is enabled for playout timestamp with a jitter delay of 20 ms.

```
cnfplayouttimestamp 4 2 20
```

Related Commands There are no related commands.

cnfpncon

To set priority routing for a specified connection, use the **cnfpncon** command.

```
cnfpncon <LCN> <rou_t_priority>
```

Syntax Description

<i>LCN</i>	Logical channel number (LCN). Range is 131–510.
<i>rou_t_priority</i>	Route priority. Range from 1 (highest) to 15 (lowest). Default is 8.

Command Modes

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

Usage Guidelines

The Private Network-to-Network Interface (PNNI) routing priority feature requires you to use a PXM1E or PXM45 in your MGX 8000 Series switch chassis.

Examples

The following example shows that the priority routing for connection 145 is set to the lowest priority:

```
cnfpncon 145 15
```

Related Commands

Command	Description
dspcon	Displays the parameters for a specified channel.

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 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

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 Voice packetization period (defined in milliseconds).

- 5
 - 10
 - 20
 - 30
 - 40
-

Command Modes

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

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

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

```
cnfprofelemvbd 1 1 2 5
```

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.

cnfprofelemvoice

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

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

Syntax Description		
	<i>profileType</i>	Profile type to be used for the 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>voice_codec_type</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 • 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)

<i>pktPeriod</i>	Voice packetization period (defined in milliseconds). <ul style="list-style-type: none"> • 5 • 10 • 20 • 30 • 40
<i>sid</i>	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

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

The following example shows that 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:

```
cnfprofelemvoice 1 1 2 5 2
```

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.

cnfprofneg

To configure the profile list priority order, use the **cnfprofneg** command.

```
cnfprofneg <profileNegotiationOption>
```

Syntax Description

profileNegotiationOption Codec list priority scheme. Values are

- 1 = Local connection options (LCO) list, remote Session Descriptor Protocol (SDP) data list, local MIB
- 2 = LCO list, local MIB, remote SDP data list
- 3 = Remote SDP data list, LCO list, local MIB
- 4 = Remote SDP data list, local MIB, LCO list
- 5 = Local MIB, LCO list, remote SDP data list
- 6 = Local MIB, remote SDP data list, LCO list

Command Modes

Switched AAL2 SVC, AAL2 PVC

Usage Guidelines

This command determines which list to use for determining the relative profile preferences.

Examples

The following example shows that the codec list priority configuration uses the LCO list first, the remote SDP data list second, and the local MIB last:

```
cnfprofneg 1
```

Related Commands

Command	Description
dspvismparam	Displays the current VISM card configuration.

cnfprofparams

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

cnfprofparams <profileType> <profileNumber> <profilePreference>

Syntax Description

<i>profileType</i>	Profile type to be used for the 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 • 200 = Custom profile • 201 = Custom profile • 210 = Custom profile
<i>profilePreference</i>	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 • 1–11 where 1 is the highest preference (default) and 11 is the lowest preference

Command Modes

AAL2 trunking and switched AAL2 PVC

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

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

```
cnfprofparams 1 1 4
```

Related Commands

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

cnfrsvp

To configure Resource Reservation Protocol (RSVP) for a specified connection, use the **cnfrsvp** command.

```
cnfrsvp <LCN> <rsvp_status>
```

Syntax Description

<i>LCN</i>	Logical channel number. Range is 131–510.
<i>rsvp_status</i>	Value to enable or disable RSVP. <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that RSVP is enabled for LCN 146:

```
cnfrsvp 146 1
```

Related Commands

Command	Description
cnfrsvpprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.
dsprsvpif	Displays the RSVP status of a specified connection.
dsprsvpreq	Displays the data associated with a specified RSVP request.
dsprsvpreqs	Displays all RSVP-known requests on the current VISM card.
dsprsvpresv	Displays all data associated with an RSVP bandwidth reservation.
dsprsvpresvs	Displays all incoming RSVP-known reservations on the current VISM card.
dsprsvpsenders	Displays all data associated with a specified RSVP path state.

cnfrsvprefreshmiss

To configure the number of times VISM waits for a missed Resource Reservation Protocol (RSVP) minimum refresh message—a path or reservation message—(this is in addition to the time configured for minimum refreshes) for a specified connection, use the **cnfrsvprefreshmiss** command.

```
cnfrsvprefreshmiss <LCN> <rsvp_miss_count>
```

Syntax Description

<i>LCN</i>	Logical channel number (LCN). Range is 131–510.
<i>rsvp_miss_count</i>	Successive number of refresh message wait times that VISM allows before deleting the soft-state for the connection. Range is 1–8. Default is 4.

Command Modes

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

Usage Guidelines

VISM expects refresh messages at regular intervals, which are passed to VISM from the Routing Processor Module (RPM).

If no refresh messages are sent to the VISM, VISM deletes the soft-state for the corresponding connection. However, you can use this command to extend the wait time by configuring the number of wait times VISM allows before tearing down a connection.

Examples

The following example shows that LCN 142 is configured to wait for 7 refresh time frames before allowing a connection to be torn down:

```
cnfrsvprefreshmiss 142 7
```

Related Commands

Command	Description
cnfrsvp	Configures RSVP for a specified connection.
dsprsvpif	Displays the RSVP status of a specified connection.
dsprsvpreq	Displays the data associated with a specified RSVP request.
dsprsvpreqs	Displays all RSVP-known requests on the current VISM card.
dsprsvpresv	Displays all data associated with an RSVP bandwidth reservation.
dsprsvpresvs	Displays all incoming RSVP-known reservations on the current VISM card.
dsprsvpsenders	Displays all data associated with a specified RSVP path state.

cnfrtcprepint

To configure the Real Time Control Protocol (RTCP) report interval for a VISM card, use the **cnfrtcprepint** command.

```
cnfrtcprepint <report_interval> [/<recv_multiplr>]
```

Syntax Description

<i>report_interval</i>	Interval (defined in milliseconds) between RTCP report packets sent to peer VoIP endpoints. Range is 500–15000 ms in increments of 10 ms. Default is 5000.
<i>/recv_multiplr/</i>	(Optional) Interval multiplier for the <i>report_interval</i> argument value. Use this argument if you need to configure the report-interval argument value higher than the maximum (1500 ms). Range is 1–10. Default is 3.
Note	If <i>report_interval</i> = 1500 and <i>recv_multiplr</i> = 3, then $1000 * 3 = 4500$. So, the interval time between RTCP report packets sent to peer VoIP endpoints is configured as 4500 ms.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the RTCP report packet interval is configured at 1000 ms:

```
cnfrtcprepint 1000
```

Related Commands

Command	Description
dspvismparam	Displays current VISM card configuration.

cnfrtpcon

To modify an existing static Real-Time Transport Protocol (RTP) VoIP trunking connection, use the **cnfrtpcon** command.

```
cnfrtpcon <rtp_conn_index> <voice_codec_type> <conn_mode> |<voice_packet_period>
<bearer_prec> <bearer_tos> <VAD_OnOff> <VAD_Timer> <ecan> <CAS_transport>
<DTMF_Transport> <ICS> <payload>|
```

Syntax Description

<i>rtp_conn_index</i>	Connection identification number. It can be in the range from 1 to 248.
<i>voice_codec_type</i>	The type of coding/decoding to be performed on the data stream. It can be one of the following values: <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)
<i>conn_mode</i>	(Optional) Connection mode. It can be one of the following values: <ul style="list-style-type: none"> • 1 = VISM sends packets • 2 = VISM receives packets • 3 = VISM sends and receives packets (Default) • 4 = Inactive; VISM does not send or receive packets
<i>voice_packet_period</i>	(Optional) Packetization period (defined in milliseconds). It can be one of the following values: <ul style="list-style-type: none"> • 10 • 20 • 30 • 40 • 60
<i>bearer_prec</i>	(Optional) Bearer precedence. It can be in the range from 0 to 7. (Default = 5)

<i>bearer_tos</i>	(Optional) Bearer type of service (ToS). It can be one of the following values: <ul style="list-style-type: none"> • 0 (Default) • 1 • 2 • 4 • 8
<i>VAD_OnOff</i>	(Optional) Enables or disables voice activity detection (VAD). It can be one of the following values: <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default)
<i>VAD_Timer</i>	(Optional) The VAD holdover timer (defined in milliseconds) in the range from 250 to 65535.
<i>ecan</i>	(Optional) Enables or disables echo cancellation (ECAN). It can be one of the following values: <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off
<i>CAS_transport</i>	(Optional) Enables or disables CAS signaling transportation. It can be one of the following values: <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off
<i>DTMF_Transport</i>	(Optional) Enables or disables DTMF tone transportation. It can be one of the following values: <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off <p>Note The <i>DTMF_Transport</i> argument value must be set to 1 (on) when the <i>voice_codec_type</i> is configured for codecs other than G.711 and G.726.</p>
<i>ICS</i>	(Optional) Enables or disables idle code suppression for the CID. It can be one of the following values: <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default)
<i>payload</i>	(Optional) Assigns the payload type. I can be in the range from 0 to 255. Default = 256. <p>Note If you do not use the <i>payload</i> argument to assign the payload type, the dynamic payload is set to the static value of the DSPs codec type.</p>

Command Modes

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

Usage Guidelines

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

Examples

The following example shows that the RTP trunking connection 26 is configured (modified) with G.726/32 codec type. VISM is also configured to send and receive packets and has a 20-ms packetization period, a bearer precedence of 3, a bearer ToS of 1, with VAD enabled, and a 400-ms VAD holdover time. The ECAN, CAS, DTMF tone transport, idle code suppression for CID, and redundancy are enabled. Also, the 255 payload type is configured:

```
cnfrtpcon 26 3 3 20 3 1 1 400 1 1 1 1 1 255
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnfdynamicpayload	Enables or disables the dynamic payload on the current VISM card.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dspdynamicpayload	Displays the card level configuration of dynamic payload on the current VISM card.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsprtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsprtpccon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprtpcconnstat	Displays the RTP connection statistics for a specified endpoint.
dsprtpccons	Displays the configuration data of all static RTP VoIP trunking connections.
dsprudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

cnfrtprxtimer

To enable or disable the receipt of Real-Time Transport Protocol (RTP) messages on a VISM card, use the **cnfrtprxtimer** command.

```
cnfrtprxtimer <rx_timer>
```

Syntax Description

<i>rx_timer</i>	Value to enable or disable the receipt of RTP messages.
	<ul style="list-style-type: none"> • 1 = Disable • 2 = Enable

Command Modes

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

Usage Guidelines

If you enable the receipt of RTP messages (*rx_timer* = 2) and no RTP messages are received on a particular connection for 5 seconds, the gateway initiates a connection deletion. You cannot configure the 5-second time limit.

Examples

The following example shows that the receipt of RTP messages is enabled for the current VISM card:

```
cnfrtprxtimer 2
```

Related Commands

There are no related commands.

cnfrudptrunkrmtip

To modify the remote IP address of VISM used in the ISDN PRI backhaul Reliable User Datagram Protocol (RUDP) trunk for a specified session, use the **cnfrudptrunkrmtip** command.

```
cnfrudptrunkrmtip <session_number> <Remote_Gw_IP>
```

Syntax Description

<i>session_number</i>	ISDN PRI backhaul RUDP session. Range is 1–64.
<i>Remote_Gw_IP</i>	IP address in dotted decimal format (nnn.nnn.nnn.nnn) of the remote VISM card.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the remote IP address, 209.165.200.224, of VISM used in RUDP is modified to session number 22:

```
cnfrudptrunkrmtip 22 209.165.200.224
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsprtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsprtpcn	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprtpcns	Displays the configuration data of all static RTP VoIP trunking connections.

Command	Description
dsprudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

cnfseqtonedet

To change the default settings of a sequential tone, enter the **cnfseqtonedet** command.

```
cnfseqtonedet <numfreq> <eventid> <tonedur> <tonegap> <durdev> <maxgap> <gapdev>
<freqdev> |<maxpwr> <minpwr>| <freq1>,[<freq2>,<freq3>...<freq10>]
```

Syntax Description

<i>numfreq</i>	Number frequency. Range is 1–10.
<i>eventid</i>	Event ID. Range is 0– 255.
<i>tonedur</i>	Duration of the tone. Range is 1–65534 ms.
<i>tonegap</i>	Amount of time between the different frequencies of the sequential tone. Range is 1–6553 ms.
<i>durdev</i>	Deviation in the durations of the sequential tone frequencies. Range is 1–4095 ms.
<i>maxgap</i>	Maximum time between the different frequencies of the sequential tone. Range is 1–4095 ms.
<i>gapdev</i>	Deviation in the inter-frequency time duration. Range is 1–4095.
<i>freqdev</i>	Deviation in the duration of the sequential tone frequencies. Range is 1–1000 Hz.
<i>/maxpwr/</i>	(Optional) Maximum power level of the sequential tone. Range is absolute values of 0 to -40 db.
<i>/minpwr/</i>	(Optional) Minimum power level of the sequential tone. Range is 0 to -40 db.
<i>freq1</i> (Optional: <i>freq2</i> , <i>freq3</i> ... <i>freq10</i>)	Different frequencies that make up the sequential tone. Range is 280–3800 Hz. For example, the special information tone is made up of three frequencies. The first three frequencies (<i>freq1</i> – <i>freq3</i>) have valid values. The other frequencies (<i>freq4</i> – <i>freq10</i>) have default values of 280 Hz.

Command Modes

VoIP switching/VoIP trunking

Usage Guidelines

Follow standard CLI procedures for this command.



Note

This command is only applicable to the VISM-PR card.

Examples

The following example shows a sequential tone that is configured with different values than the defaults.:

```
cnfseqtonedet 3 74 330 10 20 150 200 40 3 40 950 1400 1800 280 280 280 280 280 280 280
```

■ `cnfseqtonedet`

Related Commands

Command	Description
<code>dspseqtonedet</code>	Displays values of a sequential tone.

cnfsesack

To configure the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated, use the **cnfsesack** command.

```
cnfsesack <session_num> <acknowledgement_timeout> <acknowledgement>
```

Syntax Description

<i>session_num</i>	Identifying session number in the range 1–64.
<i>acknowledgement_timeout</i>	Timeout period (defined in milliseconds) to send an acknowledgment. Range is 100–65535 ms. Default is 300.
<i>acknowledgement</i>	Maximum number of acknowledgments that can be accumulated before sending an acknowledgment. Range is 0–255. Default is 3.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

Examples

The following example shows that session 2 is configured with an acknowledgment period of 500 ms and the maximum number of accumulated acknowledgments can be 10:

```
cnfsesack 2 500 10
```

Related Commands

Command	Description
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesmaxwindow	Configures the maximum number of segments (window) that can be sent before receiving an acknowledgment.
cnfsesnullsegtmout	Configures the idle time before sending a null segment.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesretrans	Configures the timeout period for unacknowledged packets and the number of retransmissions.
cnfsesstatetmout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsesmaxreset

To configure the maximum number of resets that a VISM card performs before a connection is reset, use the **cnfsesmaxreset** command.

```
cnfsesmaxreset <session_number> <resets>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>resets</i>	Maximum number of resets that the VISM card performs before a connection is reset. Range is 0–255. Default is 5.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

Examples

The following example shows that 25 is the maximum number of resets configured for session number 2:

```
cnfsesmaxreset 2 25
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesmaxwindow	Configures the maximum number of segments (window) that can be sent before receiving an acknowledgment.
cnfsesnullsegtmout	Configures the idle time before sending a null segment.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesretrans	Configures the timeout period for unacknowledged packets and the number of retransmissions.
cnfsesstatetmout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsesmaxseg

To configure the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message, use the **cnfsesmaxseg** command.

```
cnfsesmaxseg <session_number> <segment_size>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>segment_size</i>	Maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message. Range is 30–65535.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

Examples

The following example shows that a maximum 1000-octet segment size is configured for session number 2:

```
cnfsesmaxseg 2 1000
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxwindow	Configures the maximum number of segments (window) that can be sent before receiving an acknowledgment.
cnfsesnullsegtmout	Configures the idle time before sending a null segment.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesretrans	Configures the timeout period for unacknowledged packets and the number of retransmissions.
cnfsesstatetmout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsesmaxwindow

To configure the maximum number of segments (window) that can be sent before receiving an acknowledgment, use the **cnfsesmaxwindow** command.

```
cnfsesmaxwindow <session_number> <window_size>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>window_size</i>	Maximum number of segments that can be sent before receiving an acknowledgment. Range is 1–64.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

Examples

The following example shows that a maximum number of 44 segments can be sent for session number 2 before receiving an acknowledgment:

```
cnfsesmaxwindow 2 44
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesnullsegtmout	Configures the idle time before sending a null segment.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesretrans	Configures the timeout period for unacknowledged packets and the number of retransmissions.
cnfsesstatetmout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsesnullsegtmout

To configure the timeout period, in milliseconds, of idle time before a null segment is sent, use the **cnfsesnullsegtmout** command.

```
cnfsesnullsegtmout <session_number> <timeout>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>timeout</i>	Timeout period (defined in milliseconds) of idle time before a null segment is sent. Range is 0–65535 ms. Default is 2000 ms.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

Examples

The following example shows that the idle timeout period is configured at 1000 ms for session number 2:

```
cnfsesnullsegtmout 2 1000
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesretrans	Configures the timeout period for unacknowledged packets and the number of retransmissions.
cnfsesstatetmout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsesoutofseq

To configure the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet, use the **cnfsesoutofseq** command.

```
cnfsesoutofseq <session_number> <packets>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>packets</i>	Maximum number of out-of-sequence packets that can be accumulated before an EACK packet is transmitted. Range is 0–255.
Note	If you specify 0, a EACK message is sent immediately upon receiving an out-of-sequence packet.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

Examples

The following example shows that a maximum of 10 out-of-sequence packets can be accumulated before an EACK packet is transmitted for session number 2:

```
cnfsesoutofseq 2 10
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesnullsegtmout	Configures the idle time before sending a null segment.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesretrans	Configures the timeout period for unacknowledged packets and the number of retransmissions.
cnfsesstatetmout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsesport

To configure the port numbers of a previously added PRI backhaul session, use the **cnfsesport** command.

```
cnfsesport <session_number> <local_port> <remote_port>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>local_port</i>	Local port number. The VISM port number used for the session. Range is 1124–49151.
<i>remote_port</i>	Remote port number. The call agent port number used for the session. Range is 1124–65535.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that session number 4 is configured with local (VISM) port number 1200 and remote (call agent) port number 1204:

```
cnfsesport 4 1200 1204
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesnullsegtmout	Configures the idle time before sending a null segment.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesretrans	Configures the timeout period for unacknowledged packets and the number of retransmissions.
cnfsesstatetmout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsesretrans

To configure the timeout period for unacknowledged packets and number of retransmissions, use the **cnfsesretrans** command.

```
cnfsesretrans <session_number> <retransmit_timeout> <max_retransmits>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>retransmit_timeout</i>	Timeout period (defined in milliseconds) to send an acknowledgment. Range is 100–65535 ms. Default is 600 ms.
<i>max_retransmits</i>	Maximum number of retransmissions. Range is 0–255. Default is 3.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

When the maximum retransmissions have been made and there is still no acknowledgment, the session is considered failed.

Examples

The following example shows that session number 2 is configured with a timeout period for unacknowledged packets of 1000 ms and a maximum number of retransmission attempts of 20:

```
cnfsesretrans 2 1000 20
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesnullsegmtout	Configures the idle time before sending a null segment.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesstatetmtout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsesstatetmout

To configure the number of milliseconds that VISM waits for a transfer state before executing an auto reset, use the **cnfsesstatetmout** command.

```
cnfsesstatetmout <session_number> <timeout>
```

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
<i>timeout</i>	Transfer state timeout. The maximum number of milliseconds that VISM waits for a transfer state before executing an auto reset. Range is 0–65535. Default is 2000.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

Examples

The following example shows that session number 2 is configured with a 500-ms transfer state timeout:

```
cnfsesstatetmout 2 500
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesretrans	Configures the timeout period for unacknowledged packets and number of retransmissions.
cnfsessyncatmps	Configures the maximum number of call agent synchronization attempts.

cnfsessyncatmps

To configure the maximum number of attempts to synchronize with the call agent, use the **cnfsessyncatmps** command.

```
cnfsessyncatmps <session_number> <sync_attempts>
```

Syntax Description

<i>session-num</i>	Identifying session number in the range 1–64.
<i>max-sync-attempts</i>	Maximum number of attempts to synchronize with the call agent. Range is 1–32. Default is 5.

Command Modes

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

Usage Guidelines

Use this command for a previously added PRI backhaul session.

Examples

The following example shows that session number 2 is configured with a maximum of 5 synchronization attempts with the call agent:

```
cnfsessyncatmps 2 5
```

Related Commands

Command	Description
cnfsesack	Configures the timeout period before sending an acknowledgment, and the maximum number of acknowledgments that can be accumulated.
cnfsesmaxreset	Configures the maximum number of resets that a VISM card performs before a connection is reset.
cnfsesmaxseg	Configures the maximum segment size, in octets, that can be received by a VISM card after sending a synchronize message.
cnfsesoutofseq	Configures the maximum number of out-of-sequence packets that can be accumulated before sending an EACK packet.
cnfsesport	Configures the port numbers of a previously added PRI backhaul session.
cnfsesretrans	Configures the timeout period for unacknowledged packets and number of retransmissions.
cnfsesstatetmout	Configures the number of milliseconds that VISM waits for a transfer state before executing an auto reset.

cnfsidpacket

To enable or disable the generation of the silence indication detection (SID) packet when silence suppression is in active mode on all of the lines, use the **cnfsidpacket** command.

cnfsidpacket <*sidpacket*>

Syntax Description

<i>sidpacket</i>	Value to enable or disable the SID packet.
	<ul style="list-style-type: none"> • 1 = Enable (default) • 2 = Disable

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the SID packet is enabled.

```
cnfsidpacket 1
```

Related Commands

Command	Description
dspsidpacket	Shows whether or not the SID packet is enabled for each line.

cnfsrcppeer

To configure the port for the call agent configured with the Simple Resource Control Protocol (SRCP)—when SRCP is the selected protocol for communication between the VISM card and call agent, use the **cnfsrcppeer** command.

```
cnfsrcppeer <peerId> <port>
```

Syntax Description

<i>peerId</i>	Peer (call agent) identification number. Range is 1–8.
<i>port</i>	User Datagram Protocol (UDP) port number. Range is 1025–65535.

Command Modes

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

Usage Guidelines

If you do not use this command, the default MGCP/SGCP port number, 2428, is used for the *port* argument value.

Examples

The following example shows that peer identification number 2 is configured with UDP port number 1160:

```
cnfsrcppeer 2 1160
```

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspmgcgrps	Displays all configured call agent redundancy groups.
dspsrcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

cnfsrcppeergrpparam

To modify the Simple Resource Control Protocol (SRCP) heartbeat interval and maximum User Datagram Protocol (UDP) size for a specified call agent redundancy group, use the **cnfsrcppeergrpparam** command.

```
cnfsrcppeergrpparam <Red_Group_Num> <Heart_geat_interval> <max_pdu>
```

Syntax Description

<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>Heart_geat_interval</i>	Interval between heartbeats (defined in milliseconds). Values are <ul style="list-style-type: none"> • 0 • Range 100–65535
<i>max_pdu</i>	Maximum allowable UDP size. Range is 4095–65535.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that call agent redundancy group number 3 is configured with a 250-ms SRCP heartbeat interval and 50000-byte maximum UDP size:

```
cnfsrcppeergrpparam 3 250 50000
```

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspmgcgrps	Displays all configured call agent redundancy groups.
dspsrcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

cnfsrcretry

To configure the VISM card level Simple Resource Control Protocol (SRCP) retry count, minimum timeout, and maximum timeout, use the **cnfsrcretry** command.

cnfsrcretry <*minTimeout*> <*retryCount*> <*maxTimeout*>

Syntax Description

<i>minTimeout</i>	Minimum SRCP timeout (defined in milliseconds). Range is 1–10000. Default is 500.
<i>retryCount</i>	Maximum number of SRCP retries. Range is 0–10. Default is 3.
<i>maxTimeout</i>	Maximum SRCP timeout (defined in milliseconds). Range is 1– 10000. Default is 500.

Command Modes

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

Usage Guidelines

If you assign a value to the *maxTimeout* argument, VISM exponentially increases the timeout value between the minimum and maximum timeouts. If you do not assign a maximum timeout, the *maxTimeout* argument value is set equal to the *minTimeout* argument value, which disables the exponential back off.

Examples

The following example shows that the current VISM card is configured with a 100-ms minimum SRCP timeout period, a maximum of 5 SRCP retry attempts, and 1000-ms maximum SRCP timeout period:

```
cnfsrcretry 100 5 1000
```

Related Commands

Command	Description
dspsrcretry	Displays the VISM card level SRCP retry parameters—retry count, minimum timeout, and maximum timeout.

cnfsvcaal2cid

To configure the AAL2 channel ID (CID) value used in a single AAL2 switched virtual connection (SVC), use the **cnfsvcaal2cid** command.

```
cnfsvcaal2cid <cid_number>
```

Syntax Description	<i>cid_number</i> Channel ID number. Range is 8–255. Default value is 100.				
Command Modes	Switched AAL2 SVC				
Usage Guidelines	Follow standard CLI procedures for this command.				
Examples	The following example shows the single AAL2 SVC CID is configured for the recommended value of 100. <pre>cnfsvcaal2cid 100</pre>				
Related Commands	<table><thead><tr><th>Command</th><th>Description</th></tr></thead><tbody><tr><td>dspsvcaal2cid</td><td>Displays the current configured AAL2 SVC CID number.</td></tr></tbody></table>	Command	Description	dspsvcaal2cid	Displays the current configured AAL2 SVC CID number.
Command	Description				
dspsvcaal2cid	Displays the current configured AAL2 SVC CID number.				

cnfsvcqosparam

To configure ATM Quality of Service (QoS) parameters, use the **cnfsvcqosparam** command.

cnfsvcqosparam <cdv> <ctd> <clr>

Syntax Description		
<i>cdv</i>		End-to-end cell delay variation (CDV) used in voice SVC establishment. Default and upper limit is 20000 micro-seconds. Range is 500 us–20000 us.
<i>ctd</i>		End-to-end maximum cell transfer delay (CTD) used in voice SVC establishment. Default and upper limit is 150000 micro-seconds. Range is 20000 us–150000 us.
<i>clr</i>		Maximum cell loss ratio (CLR) used in voice SVC establishment. Default and upper limit is 8 (example: value 8 for $clr = 10^{-8}$). Range is 4–8.

Command Modes AAL1 switching, switched AAL2 SVC, and VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows setting the default QoS parameters: CDV is 20000 micro-seconds; CTD is 150000; CLR is 8.

```
cnfsvcqosparam 20000 150000 8
```

Related Commands

Command	Description
dspsvcqosparam	Shows the ATM QoS parameters.

cnfsvctrfscalingfactor

To configure the traffic scaling factor for voice service, use the **cnfsvctrfscalingfactor** command.

```
cnfsvctrfscalingfactor <traffic-scaling-factor>
```

Syntax Description	<i>traffic-scaling-factor</i>	Factor used to compute bandwidth to establish voice ATM service. Range is 50–200.
---------------------------	-------------------------------	---

Command Modes Switched AAL2 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows the bandwidth factor is 50.

```
cnfsvctrfscalingfactor 50
```

Related Commands	Command	Description
	dspsvctrfscalingfactor	Shows the SVC traffic scaling factor.

cnft38fxlco

To configure the fax handling instructions for a specified line, use the **cnft38fxlco** command.

```
cnft38fxlco <line_number> <Fx_LCO>
```

Syntax Description	
<i>line_number</i>	Line number of the channel in the range 1–8.
<i>Fx_LCO</i>	Local connection option (LCO) fax preamble response. Values are <ul style="list-style-type: none"> • 1 = VISM controlled T.38 then fax pass through. Upon detecting a fax preamble, VISM first attempts to complete a fax relay on the connection. If fax relay is unsuccessful due to a lack of local resources, T.38 connection admission control (CAC) failure, or the remote side did not acknowledge the 200 Named Signaling Event (NSE), VISM follows the procedure for fax pass-through. If fax relay is successful, the connection is returned to voice mode when the fax end of transfer occurs. • 2 = VISM controlled T.38 only. Upon detecting a fax preamble, VISM attempts to complete a fax relay on the connection. If fax relay is unsuccessful, the connection is returned to voice mode. If the fax relay is successful, the connection is returned to voice mode when the fax end of transfer occurs. • 3 = Pass-through then VISM controlled T.38. Upon detecting a fax preamble, VISM first attempts the procedure for fax pass-through. If fax pass-through is unsuccessful due to a lack of local resources or an upspeed CAC failure, VISM attempts the fax relay procedure. If both fax pass-through and fax relay fail, the connection is returned to voice mode. If either fax pass-through or fax relay are successful, the connection is returned to voice mode when the fax end of transfer occurs. • 4 = Pass-through only. Upon detecting a fax preamble, VISM attempts the fax pass-through procedure. • 5 = Off.

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the fax preamble response configured for line number 4 is first the fax pass-through and then VISM controlled T.38:

```
cnft38fxlco 4 3
```

Related Commands	Command	Description
	cnfcodectmpl	Assigns a codec template to an entire VISM card.
	cnft38nsetimeout	Configures a specified line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
	cnft38params	Configures the T.38 fax transfer parameters for a specified line.
	dsPCODECTmpls	Displays all entries in the codec template table.
	dspt38fxlco	Displays the fax handling instructions configured for a specified line.
	dspt38fxlcos	Displays the fax handling instructions for all lines on the current VISM card.
	dspt38nsetimeout	Displays a specified configured line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
	dspt38nsetimeouts	Displays all configured lines with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
	dspt38params	Displays the T.38 fax transfer parameters for a specified line.

cnft38nsetimeout

To configure a specified line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode, use the **cnft38nsetimeout** command.

cnft38nsetimeout <line_number> <NSE_Ack_Timer>

Syntax Description

<i>line_number</i>	Line number of the channel in the range 1–8.
<i>NSE_Ack_Timer</i>	Named Signaling Event (NSE) acknowledgment timeout value (defined in milliseconds). Range is 250–10000 ms, in increments of 250 ms.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that line number 2 is configured with an NSE acknowledgment timeout value of 600 ms:

```
cnft38nsetimeout 2 600
```

Related Commands

Command	Description
cnfcodectmpl	Assigns a codec template to an entire VISM card.
cnft38fxlco	Configures the fax handling instructions for a specified line.
cnft38params	Configures the T.38 fax transfer parameters for a specified line.
dspscodectmpls	Displays all entries in the codec template table.
dspt38fxlco	Displays the fax handling instructions configured for a specified line.
dspt38fxlcos	Displays the fax handling instructions for all lines on the current VISM card.
dspt38nsetimeout	Displays a specified configured line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38nsetimeouts	Displays all configured lines with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38params	Displays the T.38 fax transfer parameters for a specified line.

cnft38params

To configure the T.38 fax transfer parameters for a specified line, use the **cnft38params** command.

```
cnft38params <line_number> <Max_Xmit_Rate> [/<Data_Pkt_size> <LS_Data_Redundancy>
<HS_Data_Redundancy> <TCF_Method> <NSF_Override> <NSF_Country_Code>
<NSF_Vendor_Code> <T30_ECM>]
```

Syntax Description/	
<i>line_number</i>	Line number of the channel in the range 1–8.
<i>Max_Xmit_Rate</i>	Maximum fax transmission rate (defined in bits per second). Values are <ul style="list-style-type: none"> • 1 = 2400 bps • 2 = 4800 bps • 3 = 7200 bps • 4 = 9600 bps • 5 = 12000 bps • 6 = 14400 bps (Default)
<i>/Data_Pkt_size/</i>	(Optional) Primary high-speed data packet size (defined in milliseconds). Values are <ul style="list-style-type: none"> • 10 • 20 • 30 <p>Note Cisco recommends that you select 30 ms for this argument value; 14400 bps fax transfers with a high speed data packet size higher than 30 ms may fail.</p>
<i>/LS_Data_Redundancy/</i>	(Optional) Extent of the Internet fax protocol (IFP) packet transmission redundancy for the low-speed control data exchanged during the first phase of a T.38 fax relay connection. Range is 0–5. Default is 5. <p>The <i>LS_Data_Redundancy</i> argument has the following two different meanings, which depend upon the value of the <i>T30_ECM</i> argument:</p> <ul style="list-style-type: none"> • If the <i>T30_ECM</i> argument is 1, the <i>LS_Data_Redundancy</i> argument represents the maximum number of forward error correction (FEC) messages within a UDPTL packet carrying low-speed data. • If the <i>T30_ECM</i> argument is 2, the <i>LS_Data_Redundancy</i> argument represents the maximum number of prior IFP packets within a User Datagram Protocol (UDP) Transport Layer (TL) packet carrying low-speed data, but does not include the primary IFP packet.
<i>/HS_Data_Redundancy/</i>	(Optional) Extent of the IFP packet transmission redundancy for the high-speed control and image data exchanged following the initial low-speed phase of a T.38 fax relay connection. Range is 0–2. Default is 2.

<i>/TCF_Method/</i>	<p>(Optional) Training check field (TCF) verification method for UDP based fax transport. Values are</p> <ul style="list-style-type: none"> • 1 = Local—for TCP-based fax transport or UDP-based fax transport. The local TCF method implies that the media gateways are actively involved in the training and data rate management procedure, including the generation of the TCF signal. Data rate management is performed by one of the media gateways on the basis of local results, which are forwarded over the IP network by the other media gateway. The data rate management gateway generates the TCF training signal toward its group 3 fax terminal. • 2 = Network—for UDP-based fax transport. The network TCF method implies that the data rate management is performed end-to-end between the group 3 fax terminals. The TCF training signal is passed by the IP network.
<i>/NSF_Override/</i>	<p>(Optional) VISM nonstandard facilities (NSF) code override of NSF, nonstandard facilities command (NSC), and nonstandard facilities setup (NSS) T.30 signals. Values are</p> <ul style="list-style-type: none"> • 1 = Enabled (Default) If you enable NSF override, the group 3 fax machines are prevented from synchronizing with each other on the basis of a protocol other than the ITU-T recommendations. • 2 = Disabled If you disable NSF override, the group 3 fax machines synchronize to the standard T-series protocol.
<i>/NSF_Country_Code/</i>	<p>(Optional) Country code in the NFS code which identifies the country where the NFS fax equipment was manufactured, defined as one byte. Refer to <i>ITU T.38</i> for a complete description. Range is 0–65535. Default is 181.</p>
<i>/NSF_Vendor_Code/</i>	<p>(Optional) Vendor code of the NFS fax equipment manufacturer, defined as two bytes. Range is 0–65535. Default is 18.</p>
<i>/T30_ECM/</i>	<p>(Optional) Forward error correction scheme for UDP-based fax transport. Values are</p> <ul style="list-style-type: none"> • 1 = Enabled (Default) • 2 = Disabled

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the T.38 fax transfer parameters for a line number 2 are configured with a maximum fax transmission rate of 7200 bps, a primary high-speed data packet size of 20 ms, a low-speed packet transmission redundancy of 3, a high-speed packet transmission redundancy of 0, the network TCF verification method, NFS code VISM override enabled, a country code of 500, a vendor code of 4000, and a UDP error correction enabled:

```
cnft38params 2 3 20 3 0 2 1 500 4000 1
```

Related Commands

Command	Description
cnfcodecempl	Assigns a codec template to an entire VISM card.
cnft38fxlco	Configures the fax handling instructions for a specified line.
cnft38nsetimeout	Configures a specified line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspscodecempls	Displays all entries in the codec template table.
dspt38fxlco	Displays the fax handling instructions configured for a specified line.
dspt38fxlcos	Displays the fax handling instructions for all lines on the current VISM card.
dspt38nsetimeout	Displays a specified configured line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38nsetimeouts	Displays all configured lines with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38params	Displays the T.38 fax transfer parameters for a specified line.

cnftftpdn

To select the Trivial File Transfer Protocol (TFTP) domain name, use the **cnftftpdn** command.

```
cnftftpdn <domain_name>
```

Syntax Description

domain_name TFTP domain name that is a text string of 1–64 alphanumeric characters.
To un-configure TFTP Domain, set *domain_name* to 'TFTPDOMAIN.'

Command Modes

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

Usage Guidelines

The domain name must have been added to the MGC table using the **adddn** command. When selected as a TFTP server, the domain name cannot be used as the call agent domain name.

Examples

The following example shows that the configured TFTP domain name is south:

```
cnftftpdn south
```

Related Commands

There are no related commands.

cnftranscotmode

To configure the continuity test (COT) tone that VISM applies toward the TDM side, use the **cnftranscotmode** command. This command changes the COT mode to be in reverse.

cnftranscotmode <*transcotmode*>

Syntax Description

transcotmode Continuity test tone.

- 1 = VISM responds with 2010 Hz.
- 2 = VISM responds with 1780 Hz (default).

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the COT tone configured as the default (1780 Hz). This tone disables the reverse transponder COT.

```
cnftranscotmode 2
```

Related Commands

Command	Description
dsptanscotmode	Displays whether or not the reverse transponder COT is enabled.

cnftrfaggclip

To enable aggregate traffic clipping, use the **cnftrfaggclip** command. When traffic clipping is enabled, the VISM/VISM-PR card can discard cells which are exceeding the card aggregate bandwidth.

cnftrfaggclip <aggregate-traffic-clipping>

Syntax Description

aggregate-traffic-clipping Value to enable aggregate traffic clipping on the VISM card.

- 1 = Disable
 - 2 = Enable
-

Command Modes

AAL1 switching, switched AAL2 SVC, and VoIP and AAL1 SVC

Usage Guidelines

Follow standard CLI procedures when using this command.

Examples

The following example shows aggregate traffic clipping is enabled.

```
cnftrfaggclip 2
```

If aggregate traffic clipping is already enabled, the following message appears after you execute the command:

```
Card aggregate traffic clipping is already Enabled.
```

Related Commands

There are no related commands.

cnfvbdcdec

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

```
cnfvbdcdec <upspeedCodec> /<payload>/
```

Syntax Description

<i>upspeedCodec</i>	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
<i>/payload/</i>	(Optional) Payload type provides a mechanism for a codec to upspeed. Range is 0–255. Default is 255.

Command Modes

VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP trunking/AAL2 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. In this case, an actual downspeed would be performed.

If you configure clear channel, VISM does not 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 clear channel, the codec is not used in the fax/modem upspeed session because VISM cannot detect any tones using clear channel.

AAL2 modes obtain the upspeed codec from the AAL2 profile table. AAL1 does not support compression and therefore does not require upspeed.

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



Note

Cisco recommends that you do not use *upspeedCodec* argument values 5 or 6 with this command.

Examples

The following example shows that the VBD upspeed codec is configured as G.711u and the 255 payload type:

```
cnfvbdcdec 1 255
```

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.
	dsdynamicpayload	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.
	dspvbcodec	Displays the upspeed codec used for voiceband data (VBD).

cnfvbymarconi

To configure voiceband data (VBD) upspeed upon detection of dual tone, use the **cnfvbymarconi** command. The pair of dual tone detected are 2130 Hz and 2750 Hz.

The upspeed codec used is specified by **dsfvbymarconi** command.

cnfvbymarconi <enableflag>

Syntax Description	<i>enableflag</i>	Value to enable the detection of the dual tones. <ul style="list-style-type: none"> • 1 = Enable • 2 = Disable
---------------------------	-------------------	--

Command Modes VoIP switching/VoIP trunking, AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows VBD upspeed is configured upon detection of a dual tone.

```
cnfvbymarconi 1
```

Related Commands	Command	Description
	dsfvbymarconi	Displays whether or not VBD upspeed is configured upon detection of a dual tone.

cnfvbdpol

To configure VISM card level voiceband data (VBD) policies—fax/modem carrier loss and fax/modem upspeed connection admission control (CAC) failure—use the **cnfvbdpol** command.

cnfvbdpol <sysCarrLossPol> <sysCacRejPol>

Syntax Description

<i>sysCarrLossPol</i>	Carrier loss policy. Values are <ul style="list-style-type: none"> • 1 = Revert to the previous codec • 2 = Maintain the upspeed codec
<i>sysCacRejPol</i>	CAC rejection policy. Values are <ul style="list-style-type: none"> • 1 = Delete the connection • 2 = Maintain the connection

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the current VISM card reverts to the previous codec for fax/modem carrier loss events and maintains the connection during upspeed CAC failure events:

```
cnfvbdpol 1 2
```

Related Commands

Command	Description
dspvbdpol	Displays the current VISM card level policies for fax/modem upspeed CAC failure and fax/modem carrier loss for call events.

cnfvismdn

To configure the current VISM card domain name, use the **cnfvismdn** command.

```
cnfvismdn <domain_name>
```

Syntax Description

<i>domain_name</i>	Current VISM card domain name, which is a text string 1–64 alphanumeric characters. Default is cisco.com.
--------------------	---

Command Modes

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

Usage Guidelines

Ensure that you configure the same domain name for the VSC as you do for the VISM card.

The domain name you configure is used when you create an endpoint identification number for each endpoint on a VISM card. The endpoint identification number is used to address SGCP/MGCP commands to a specific endpoint.

If you do not use this command, the default domain name is used.

Examples

The following example shows that the current VISM card is configured with the domain name north:

```
cnfvismdn north
```

Related Commands

Command	Description
cnfvismip	Configures the current VISM card IP address.
dspvismdn	Displays the domain name of the current VISM card.

cnfvismip

To configure the current VISM card control IP address and subnet mask, and optionally, the bearer IP address and subnet mask, use the **cnfvismip** command.

```
cnfvismip <vismIpAddr> <netMask> [/vismBearerIpAddr> <bearerNetMask>]
```

Syntax Description

<i>vismIpAddr</i>	Control IP address, in dotted decimal format (nnn.nnn.nnn.nnn), of the current VISM card.
<i>netMask</i>	Control local network subnet mask, in dotted decimal format (nnn.nnn.nnn.nnn). The recommended value is 255.255.255.248 .
<i>/vismBearerIpAddr/</i>	(Optional) Bearer IP address, in dotted decimal format (nnn.nnn.nnn.nnn).
<i>/bearerNetMask/</i>	(Optional) Bearer IP subnet mask, in dotted decimal format (nnn.nnn.nnn.nnn).

Command Modes

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

Usage Guidelines

You must configure the control IP address with this command before adding endpoints.

The VISM card control IP address is used to communicate with the VSC and as an identification for VoIP endpoints.

The configured VISM card IP address and subnet mask values are stored on the MGX 8000 Series platform PXM card hard disk and retrieved for subsequent configuration commands.

If you do not specify a bearer IP address and subnet mask, the control IP address and subnet mask are used as both control and bearer.

Examples

The following example shows that the current VISM card is configured with control IP address 209.165.200.224 and subnet mask 255.255.255.248:

```
cnfvismip 209.165.200.224 255.255.255.248
```

Related Commands

Command	Description
dspvismip	Displays the current VISM card IP address.

cnfvismmode

To configure the initial operating mode for a VISM card, use the **cnfvismmode** command.

```
cnfvismmode <mode_number>
```

Syntax Description	<i>mode_number</i> VISM card operating mode. Values are <ul style="list-style-type: none">• 1 = VoIP switching/VoIP trunking• 2 = ATM Adaptation Layer Type 2 (AAL2) trunking• 3 = AAL1 switching• 7 = Switched ATM AAL2 SVC• 8 = Switched ATM AAL2 permanent virtual circuit (PVC)• 9 = VoIP and AAL1 SVC• 10 = VoIP trunking/AAL2 trunking
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking
Usage Guidelines	Before using this command, delete all connections, ports, and resource partitions (if any). Existing configurations on a VISM card are cleared when you use this command.
Examples	The following example shows that the current VISM card is configured for the VoIP switching/VoIP trunking operating mode: <pre>cnfvismmode 1</pre>
Related Commands	There are no related commands.

cnfvoiptimerparam

To configure the holdover time for voice activity detection (VAD) before silence compression is activated, use the **cnfvoiptimerparam** command.

cnfvoiptimerparam <Vad_Timer>

Syntax Description	<i>Vad_Timer</i>	VAD holdover timer (defined in milliseconds). Range is 250–65535 ms. Default is 250 ms.
---------------------------	------------------	---

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the VAD holdover timer is configured for 360 ms:
cnfvoiptimerparam 360

Related Commands	Command	Description
	cnfvoiptransparams	Configures the VoIP transportation parameters.
	dspvoipparams	Displays the VoIP switching/trunking operating mode parameters.

cnfvoiptransparams

To configure the VoIP transportation parameters—enable dual tone multifrequency (DTMF) and channel associated signaling (CAS) bits transportation to the other endpoint, configure the Named Signaling Event (NSE) triple redundancy feature for NSE packets, and optionally configure the event negotiation policy and silence insertion descriptor (SID) payload type—use the **cnfvoiptransparams** command.

```
cnfvoiptransparams <DtmfRelay> <CasBits> [/<EventNego> <EventNegoPolicy>
<SIDPayloadType>]
```

Syntax Description

<i>DtmfRelay</i>	Value to enable or disable DTMF tone transportation. <ul style="list-style-type: none"> • 1 = On (Default) • 2 = Off <p>Note The <i>DtmfRelay</i> argument value must be set to 1 (on) when you are using codecs other than G.711 and G.726.</p>
<i>CasBits</i>	Value to enable or disable CAS signaling transportation. <ul style="list-style-type: none"> • 1 = On • 2 = Off (Default)
<i>/EventNego/</i>	(Optional) Value to enable or disable whether VISM should negotiate how to send events. <ul style="list-style-type: none"> • 1 = On. (Default) Attempt to negotiate how to send events. • 2 = Off. Do not attempt to negotiate how to send events.
<i>/EventNegoPolicy/</i>	(Optional) Event negotiation policy. Values are <ul style="list-style-type: none"> • 1 = None. Call agent driven. • 2 = Proprietary (Default). Call agent driven and VISM proprietary events. • 3 = All. Call agent driven and all event codecs specified by VISM.
<i>/SIDPayloadType/</i>	(Optional) Service ID (SID) payload type. Range is 0–255. Default is 13.

Command Modes

VoIP switching/VoIP trunking, VoIP and AAL1 SVC

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that DTMF and CAS bit transportation are enabled and the NSE redundancy feature is not enabled:

```
cnfvoiptransparams 1 1 2
```

Related Commands	Command	Description
	cnfvoiptimerparam	Configures the holdover time for VAD before silence compression is activated.
	dspvoipparams	Displays the VoIP switching/trunking operating mode parameters.

cnfxgcpbt

To configure a default bearer type—if one is not specified by the call agent by the xGCP local connection options—for the current VISM card, use the **cnfxgcpbt** command.

```
cnfxgcpbt <networkType> <vcType> [/<connType>]
```

Syntax Description

<i>networkType</i>	Network type. Values are <ul style="list-style-type: none"> • 1 = IP • 2 = ATM
<i>vcType</i>	Virtual circuit type. Values are <ul style="list-style-type: none"> • 1 = Permanent virtual circuit (PVC) • 2 = Switched virtual circuit (SVC)
<i>/<connType></i>	(Optional) Connection type. Values are <ul style="list-style-type: none"> • 1 = ATM Adaptation Layer Type 1 (AAL1) • 2 = ATM Adaptation Layer Type 2 (AAL2) • 3 = Not applicable <p>Note You must select 3 (not applicable) if you selected a <i>networkType</i> argument value of 1 (IP).</p>

Command Modes

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

Usage Guidelines

If the default bearer types (network, VC, or connection) are specified as part of the local connection options, those types take precedence over the types specified in this command.

Examples

The following example shows that the current VISM card is configured for the IP network type and for PVC:

```
cnfxgcpbt 1 1 3
```

Related Commands

Command	Description
dspxgcpbt	Displays the default network, VC, and connection types configured for the current VISM card.

cnfxgcpinteropsdpost

To enable or disable the Session Descriptor Protocol (SDP) OST interoperability in the call control protocol, use the **cnfxgcpinteropsdpost** command.

cnfxgcpinteropsdpost <*sdpostFlag*>

Syntax Description	<p><i>sdpostFlag</i> Value to enable or disable SDP OST interoperability.</p> <ul style="list-style-type: none"> • 1 = Enable (Default) • 2 = Disable 				
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC				
Usage Guidelines	<p>When a CRCX or MDCX command is received from the call agent, VISM can respond by building SDP OST (O =, S =, and T = lines).</p> <p>If a peer gateway does not support SDP OST, this command can be used to prevent VISM from building SDP OST lines.</p>				
Examples	<p>The following example shows that SDP OST interoperability is disabled:</p> <pre>cnfxgcpinteropsdpost 2</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>dspxgcpinterops</td> <td>Displays the SDP OST interoperability feature configuration.</td> </tr> </tbody> </table>	Command	Description	dspxgcpinterops	Displays the SDP OST interoperability feature configuration.
Command	Description				
dspxgcpinterops	Displays the SDP OST interoperability feature configuration.				

cnfxgcpmwd

To configure the maximum waiting delay (MWD) value used for sending a Restart in Progress (RSIP) message to the call agent, use the **cnfxgcpmwd** command.

cnfxgcpmwd *<timeout value>*

Syntax Description	<i>timeout value</i>	Maximum wait delay time (defined in milliseconds) to send an RSIP message to the call agent. Range is 0–600000 ms. Default is 10000 ms.
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC	
Usage Guidelines	Use this command to limit the number of RSIP messages sent to the call agent when an MGX 8000 Series platform configured with multiple VISM cards is started or reset. Each VISM card waits a random amount of time (up to a maximum specified by this command) before sending an RSIP message.	
Examples	The following example shows that the maximum waiting delay time to send RSIP messages to the call agent is 300 ms: cnfxgcpmwd 300	
Related Commands	Command	Description
	dspxgpcnf	Displays previously configured SGCP/MGCP timeout and retry count values.

cnfxgcppeer

To configure the User Datagram Protocol (UDP) port number used to send gateway-initiated messages to the call agent, use the **cnfxgcppeer** command.

```
cnfxgcppeer <mgcNumber> <protocolNumber> <UDP_port>
```

Syntax Description

<i>mgcNumber</i>	A number by which the call agent is identified in the range 1–8.
<i>protocolNumber</i>	Protocol number. It can be one of the following values: <ul style="list-style-type: none"> • 1 = MGCP 0.1 • 2 = SGCP 1.1+ • 4 = SGCP 1.5 • 5 = MGCP 1.0 • 6 = TGCP 1.0
<i>UDP_port</i>	UDP port number in the range 1025–65535. Default is 2427.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that call agent 1 is configured with protocol number 3 and remote UDP port number 1168:

```
cnfxgcppeer 1 3 1168
```

Related Commands

Command	Description
cnfdistimers	Specifies the wait delay times for the disconnected procedure, restart in progress command—initial, minimum, and maximum timer values.
cnfmgegrpprotocol	Configures call agent group protocol data.
dspdistimers	Displays the Restart in Progress command disconnect type method wait delay times.
dspxgcppeers	Displays all UDP peer ports used by SGCP and MGCP.

cnfxgcpretry

To configure VISM minimum and maximum request timeouts and retransmission attempts for communication with the associated call agent, use the **cnfxgcpretry** command.

```
cnfxgcpretry <minTimeout> <retryCount> <maxTimeout>
```

Syntax Description

<i>minTimeout</i>	Minimum time (defined in milliseconds) VISM waits for an acknowledgment message from the call agent. Range is 1–100000 ms. Default is 500 ms.
<i>retryCount</i>	Number of times that a call agent retransmits an unacknowledged message before determining that VISM is unreachable. Range is 1–10. Default is 3.
<i>maxTimeout</i>	Maximum time (defined in milliseconds) VISM waits for an acknowledgment message from the call agent. Range is 0–100000 ms.

Command Modes

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

Usage Guidelines

If you indicate a value for the *maxTimeout* argument, VISM exponentially increases the timeout value between the minimum and maximum timeouts. If a maximum value is not specified, the *maxTimeout* value is set equal to the *minTimeout* value, which disables the exponential backoff.

Examples

The following example shows that VISM will wait a minimum time of 1000 ms and a maximum time of 2000 ms for an acknowledgment message from the call agent, and three call agent retransmission attempts will occur before VISM is determined to be unreachable:

```
cnfxgcpretry 1000 3 2000
```

Related Commands

Command	Description
dspxgpcnf	Displays previously configured SGCP and MGCP timeout and retransmission attempt values.
dspxgcpretry	Displays the current xGCP retransmission attempt, minimum timeout, and maximum timeout values.

delannalldynamic

To delete all announcement files and their associated codec types from the temporary announcement files saved in the VISM card, use the **delannalldynamic** command.

delannalldynamic

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

This command does not report an error if no announcement files are found.

Examples

The following example shows that all announcement files and their associated codec types are deleted from the temporary announcement files currently saved in the VISM card:

```
delannalldynamic
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfanndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.

Command	Description
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.
dspannreqtimeout	Displays the expiration time for announcements to begin playing before being aborted.

delanndynamic

To delete an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card, use the **delanndynamic** command.

delanndynamic <*ann_file*> <*ann_codec*>

Syntax Description

<i>ann_file</i>	Announcement file filename. Range is 1–64 alphanumeric characters, including the following symbols—period (.), forward slash (/), underscore (_), and hyphen (-).
<i>ann_codec</i>	Type of coding/decoding to be performed on the data stream. Values are <ul style="list-style-type: none"> • 1 = G.711u • 2 = G.711a • 3 = G.726-32K • 4 = G.729a • 5 = G.729ab • 6 = Not used • 7 = G.726-16K • 8 = G.726-24K • 9 = G.726-40K • 10 = Not used • 11 = G.723-H • 12 = G.723a-H • 13 = G.723.1-L • 14 = G.723.1a-L

Command Modes

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

Usage Guidelines

This command does not report an error if the requested file identified by the *ann_file* argument is not found.

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

Examples

The following example shows that the zero1 announcement file and its associated codec type of G.726-40K is deleted from the temporary announcement files currently saved in the VISM card:

```
delanndynamic zero1 9
```


Related Commands	Command	Description
	addannpermanent	Configures an announcement server file and associated codec type as permanent.
	cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
	cnfannndn	Designates an announcement file server domain name.
	cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
	cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
	cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
	delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
	delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
	dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
	dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
	dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
	dspanndn	Displays the announcement file server domain name.
	dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
	dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
	dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.
	dspannreqtimeout	Displays the expiration time for announcements to begin playing before being aborted.

delannpermanent

To delete a permanent announcement file and its associated codec type from the announcement file server, use the **delannpermanent** command.

delannpermanent <*ann_index*>

Syntax Description

<i>ann_index</i>	Permanent announcement server file identification index number. Range is 1–125.
------------------	---

Command Modes

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

Usage Guidelines

Use the **dspannpermanent**s command to display a list of available permanent announcement server file names.

Examples

The following example shows that the permanent announcement server file and its associated codec type identified by the announcement server file identification index number 19 is deleted from the announcement file server:

```
delannpermanent 19
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfanndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.

Command	Description
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

delcasvar

To delete a channel associated signaling (CAS) variant, use the **delcasvar** command.

delcasvar <variant_name>

Syntax Description

variant_name Name of the CAS variant you want to delete. Range is a text string of 1–64 alphanumeric characters.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the CAS variant identified by the name var1 is deleted:

```
delcasvar var1
```

Related Commands

Command	Description
addcasvar	Adds a CAS variant to a VISM card.
cnfcasvar	Configures the CAS variant timing parameters.
dspcasvar	Displays information about CAS variants for a given variant name.

delccs

To delete the association between a common channel signaling (CCS) DS0 channel and the corresponding virtual channel, use the **delccs** command.

```
delccs <line_number> <ds0_number>
```

Syntax Description

line_number Line number of the channel in the range 1–8.

ds0_number DS0 number of the channel. Ranges are

- 1–24 = T1 lines
 - 1–31 = E1 lines
-

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

The original association is configured with the **addccs** command.

Examples

The following example shows that the CCS channel on line 2, DS0 12 is deleted:

```
delccs 2 12
```

Related Commands

There are no related commands.

delcid

To delete the association between an endpoint and an LCN/CID pair, use the **delcid** command.

```
delcid <LCN> <cidNum>
```

Syntax Description

<i>LCN</i>	Logical channel number of the LCN/CID pair. Range is 131–510.
<i>cidNum</i>	Channel identification number of the LCN/CID pair. Range is 8–255.

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the endpoint association for LCN 140 and CID 12 is deleted:

```
delcid 140 12
```

Related Commands

Command	Description
addcid	Adds an AAL2 CID on a VISM card.
dspcid	Displays the data of an AAL2 CID on a VISM card.
dsplncids	Displays the CID, endpoint, and AAL2 data for a specified line.

delcon

To delete a PVC between a VISM card and an MGX 8000 Series shelf PXM card, use the **delcon** command.

delcon <LCN>

Syntax Description	<i>LCN</i> Logical channel number of the PVC to be deleted. Range is 131–510.				
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking				
Usage Guidelines	You cannot delete a connection if it is protected or if CIDs are present.				
Examples	The following example shows that the PVC connection for LCN 140 is deleted: <code>delcon 140</code>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>addcon</td> <td>Adds a PVC connection between a VISM card and any SM or PXM card.</td> </tr> </tbody> </table>	Command	Description	addcon	Adds a PVC connection between a VISM card and any SM or PXM card.
Command	Description				
addcon	Adds a PVC connection between a VISM card and any SM or PXM card.				

delconloop

To delete a local loopback state on a connection to the cellbus, use the **delconloop** command.

delconloop <LCN>

Syntax Description	<i>LCN</i>	Logical channel number of the connection from which you want to delete the local loopback state. Range is 131–510.
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking	
Usage Guidelines	Follow standard CLI procedures for this command.	
Examples	The following example shows that the local loopback state is deleted from LCN 140: <pre>delconloop 140</pre>	
Related Commands	Command	Description
	addconloop	Sets a cellbus connection to the local loopback state.

deldn

To delete a domain name, use the **deldn** command.

```
deldn <mg_domain_num>
```

Syntax Description

<i>mg_domain_num</i>	Domain name number. Range is 1–11.
----------------------	------------------------------------

Command Modes

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

Usage Guidelines

If the domain name you want to delete is the last entry in the domain table and if the domain name exists in the list of call agents that VISM maintains (as displayed by the **dspmgs** command), deletion is not allowed.

You must manually delete all statistically provisioned IP addresses for the domain name before you can delete the domain name.

Do not delete a domain name if it is used as one of the following:

- Media Gateway Controller (MGC)
- Trivial File Transfer Protocol (TFTP) server
- Domain name server (DNS)
- Announcement server

Examples

The following example shows that the domain name represented by domain name number 11 is deleted:

```
deldn 11
```

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
adddnip	Adds the IP addresses for a domain name that you added by using the adddn command.
cnfdn	Configures the resolution type of a specified domain name.
cnfdnssrvr	Designates a domain name as a DNS.
deldnip	Deletes a statistically provisioned IP address of a domain name.
dspdallips	Displays all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card.
dspdnlips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dspdns	Displays the configuration data of all domain names of a call agent.
dspdnsrvr	Displays the domain name of the configured DNS of the current VISM card.

deldnip

To delete a statistically provisioned IP address of a domain name, use the **deldnip** command.

deldnip <Resolution_Index>

Syntax Description

Resolution_Index Resolution number of the domain name. It can be in the range from 1 to 88.

Command Modes

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

Usage Guidelines

You cannot delete IP addresses that use external resolution of the domain name. You should not delete the last IP address of a given domain name if it is used as one of the following:

- Media Gateway Controller (MGC)
- Trivial File Transfer Protocol (TFTP) server
- Domain name server (DNS)
- Announcement server

Examples

The following example shows that the IP address associated with the resolution number 46 is deleted from a domain name:

```
deldnip 46
```

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
adddnip	Adds the IP addresses for a domain name that you added by using the adddn command.
cnfdn	Configures the resolution type of a specified domain name.
cnfdnssrvr	Designates a domain name as a DNS.
deldn	Deletes a domain name.
dspdnallips	Displays all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card.
dspdnips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dspdns	Displays the configuration data of all domain names of a call agent.
dspdnssrvr	Displays the domain name of the configured DNS of the current VISM card.

deldualtonedet

To remove a dual frequency tone, use the **deldualtonedet** command.

```
deldualtonedet <vismConfigToneDetectNum>
```

Syntax Description

vismConfigToneDetectNum Dual tone ID. Range is 1–10.

Command Modes

VoIP switching/VoIP trunking

Usage Guidelines

Follow standard CLI procedures for this command.



Note

This command is only applicable to the VISM-PR card.

Examples

The following example shows that the dual frequency tone 1 is deleted.

```
deldualtonedet 1
```

For more information on the dual tones default values, see [“Default Values” section on page 1-16 of Chapter 1, “New Features in Release 3.2.”](#)

Related Commands

Command	Description
addualtonedet	Adds a dual frequency tone.
dspdualtonedet	Displays a dual tone configuration.

delendpt

To delete a specified endpoint on a VISM card line, use the **delendpt** command.

delendpt *<endpt_num>*

Syntax Description

<i>endpt_num</i>	<p>Endpoint number. Ranges are</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
------------------	---

Command Modes

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

Usage Guidelines

An endpoint cannot be deleted if CIDs are present.

This command results in a graceful transition to out of service and an RSIP to be sent to each associated call agent indicating the endpoint out-of-service state.

Examples

The following example shows that endpoint number 120 is deleted:

```
delendpt 120
```

Related Commands

Command	Description
addendpt	Adds an endpoint on a VISM card.
dspendpt	Displays data about a specified endpoint on a VISM card.
dspendpts	Displays information about all endpoints on a VISM card.

delendptloop

To take an endpoint out of the loopback condition, use the **delendptloop** command.

delendptloop *<endpt_num>*

Syntax Description

<i>endpt_num</i>	Endpoint number which is to be deleted. Ranges are <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the loopback state is deleted from endpoint number 120:

```
delendptloop 120
```

Related Commands

Command	Description
addendptloop	Places an endpoint in the loopback condition in the TDM direction.

delendpts

To delete a range of consecutive endpoints on a VISM card, use the **delendpts** command.

delendpts <endpt_num> <endpts_num>

Syntax Description

<i>endpt_num</i>	<p>Beginning endpoint number of a range of consecutive endpoints. Ranges are</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 – • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
<i>endpts_num</i>	<p>The quantity of endpoints deleted. Ranges are</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248

Command Modes

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

Usage Guidelines

This command results in a graceful transition to the out-of-service state for each deleted endpoint and an RSIP to be sent to each associated call agent indicating the out-of-service state of the endpoints.

If the specified range of endpoints to be deleted contains gaps, the gaps are not counted. For example, if the current endpoints are 3, 4, 7, 8, 9 10, 11,12 and the command specifies a start at 4 and a number of 5, the endpoints deleted are 4, 7, 8, 9, and 10.

Examples

The following example shows that 10 endpoints are deleted, starting with endpoint number 120:

```
delendpts 120 10
```

Related Commands

Command	Description
addendpt	Adds an endpoint on a VISM card.
dspendpt	Displays data about a specified endpoint on a VISM card.
dspendpts	Displays data about all endpoints on a VISM card.

dellapd

To delete an Link Access Protocol D channel (LAPD), use the **dellapd** command.

```
dellapd <line_number> <ds0_number>
```

Syntax Description

<i>line_number</i>	Line number of the channel from which to delete an LAPD. Range is 1–8.
<i>ds0_number</i>	DS0 number of the channel from which to delete an LAPD. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the D channel for line number 2, DS0 number 14 is deleted:

```
dellapd 2 14
```

Related Commands

Command	Description
addlapd	Adds an LAPD from a specified DS0 to a VISM card.
dsplapd	Displays data about an LAPD.
dsplapds	Displays data about all LAPDs.

dellapdtrunk

To delete a Link Access Protocol D channel (LAPD) configured line, use the **dellapdtrunk** command.

dellapdtrunk <Line_Num>

Syntax Description	Line_Num	Line number to delete. Range is 1–8.
--------------------	----------	--------------------------------------

Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking
---------------	---

Usage Guidelines	You must use the dellapd command to delete the corresponding LAPD channel before you can delete the LAPD trunk.
------------------	--

Examples	The following example shows that the LAPD configured line, line number 7, is deleted:
----------	---

```
dellapdtrunk 7
```

Related Commands	Command	Description
	addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
	addrtpcon	Adds a static RTP VoIP trunking connection.
	addrudp trunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
	clr rtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
	cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
	cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
	cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
	cnfrudp trunk rmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
	del rtpcon	Deletes a static RTP VoIP trunking connection.
	del rudp trunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
	dsplapd	Displays data about an LAPD.
	dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
	dsplapdtrunks	Displays the configuration data of all LAPD trunks.
	dsprt pcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
	dsprt pcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
	dsprt pcons	Displays the configuration data of all static RTP VoIP trunking connections.

Command	Description
dsprudp trunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudp trunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

deln

To delete a DS1 line on a VISM card, use the **deln** command.

```
deln <line_number>
```

Syntax Description

line_number Physical line number in the range 1–8.

Command Modes

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

Usage Guidelines

You must delete endpoints and CCS channels from the line before the line can be deleted.

Examples

The following example shows that line number 4 is deleted:

```
deln 4
```

Related Commands

Command	Description
addln	Adds a T1 or E1 line to a VISM card.
cnfln	Configures characteristics for a VISM card line.
dspln	Displays the characteristics of a specified VISM card line.
dsplns	Displays the characteristics for all lines on a VISM card.

delnloop

To delete the T1 or E1 local line loopback state for a VISM card, use the **delnloop** command.

```
delnloop <line_number>
```

Syntax Description

line_number Line number on the VISM card for which the local loop is to be deleted. Range is 1–8.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the local loopback for line 6 is deleted:

```
delnloop 6
```

Related Commands

Command	Description
dspln	Displays the data configured on a specified line.

delIntoneplan

To delete a built-in or provisional tone plan configuration from a specified VISM card line, use the **delIntoneplan** command.

delIntoneplan <line_number>

Syntax Description

<i>line_number</i>	Line number of the channel for which you want to delete the configured tone plan. Range is 1–8.
--------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the tone plan configuration for line number 5 is deleted:

```
delIntoneplan 5
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

delmgc

To delete a call agent from a VISM card's list of configured call agents, use the **delmgc** command.

```
delmgc <mgcNum>
```

Syntax Description	<i>mgcNum</i>	Number by which the call agent is identified, as displayed by the dspmgs command. Range is 1–8.
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC	
Usage Guidelines	Follow standard CLI procedures for this command.	
Examples	The following example shows that the call agent identified by the number 3 is deleted: <pre>delmgc 3</pre>	
Related Commands	Command	Description
	cnfmgegrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
	dspmgs	Displays configuration data on all configured call agents.

delmgcgrpentry

To delete a call agent from a call agent redundancy group, use the **delmgcgrpentry** command.

```
delmgcgrpentry <Red_Group_Num> <mgcRedGrpMgcNum>
```

Syntax Description

<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>mgcRedGrpMgcNum</i>	Call agent identification number. Range is 1–8.

Command Modes

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

Usage Guidelines

The last call agent within a call agent redundancy group cannot be deleted if there are protocols associated with the call agent redundancy group.

A call agent redundancy group is deleted when the last call agent has been deleted from a group.

Use the **dspmgcgrpparams** CLI to verify your configuration.

Examples

The following example shows that call agent number 2 is deleted from call agent redundancy group number 1:

```
delmgcgrpentry 1 2
```

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspmgcgrps	Displays all configured call agent redundancy groups.
dpsrcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

delmgcgrpprotocol

To delete a Media Gateway Control Protocol (MGCP) from a specified call agent redundancy group, use the **delmgcgrpprotocol** command.

```
delmgcgrpprotocol <Red_Group_Num> <protocol_number>
```

Syntax Description

<i>Red_Group_Num</i>	Call agent redundancy group number. Range is 1–8.
<i>protocol_number</i>	Protocol number. Values are <ul style="list-style-type: none"> • 1 = MGCP 0.1 • 2 = SGCP 1.1+ • 3 = SRCP 1.0.2 • 4 = SGCP 1.5 • 5 = MGCP 1.0 • 6 = TGCP 1.0 <p>You can use 7 and 8, as displayed by the dspmgcgrpprotocols command.</p>

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that protocol number 2 is deleted from call agent redundancy group number 3:

```
delmgcgrpprotocol 3 2
```

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfdisc timers	Specifies the wait delay times for the disconnected procedure, restart in progress command—initial, minimum, and maximum timer values.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfmgcgrpprotocol	Configures call agent group protocol data.
cnfsrccpeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.

Command	Description
cnfsrcppeergpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
dspdisctimers	Displays the Restart in Progress command disconnect type method wait delay times.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspmgcgrps	Displays all configured call agent redundancy groups.
dpsrcppeergpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

delport

To delete the VISM port on the packet network side, use the **delport** command.

delport

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

You should execute this command before you remove the VISM card.



Caution

If you remove a VISM card with a port that has not been deleted, subsequent cards inserted into the same slot may not operate correctly. You should delete the resource partition and all PVCs before deleting the port.

When you use this command, the entry with the following port numbers is deleted in the following manner:

- Entry 1 is deleted from a PXM1 card
- Entry 255 is deleted from a PXM1E or a PXM45 card

Examples

The following example shows that the VISM port on the packet network side is deleted:

```
delport
```

Related Commands

Command	Description
dspport	Displays data about the virtual port that was created using the addport command.

delrsprtn

To delete a resource partition which was created by the **addrsptrtn** command, use the **delrsprtn** command.

delrsprtn

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the current resource partition is deleted:

```
delrsprtn
```

Related Commands	Command	Description
	addrsptrtn	Adds a resource partition for a virtual port.
	dspsrcpeers	Displays the peer configuration data for all known SRCP peers (call agents).

delrtpcon

To delete a static Real-Time Transport Protocol (RTP) VoIP trunking connection, use the **delrtpcon** command.

```
delrtpcon <rtp_conn_index>
```

Syntax Description

<i>rtp_conn_index</i>	Connection identification number. Range is 1–248.
-----------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the static RTP connection number 200 is deleted:

```
delrtpcon 200
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsprtpcnt	Displays the bearer counters (statistics) for a specified RTP VoIP trunking connection.
dsprtpcon	Displays the configuration data of a specified static RTP VoIP trunking connection.
dsprtpconnstat	Displays the RTP connection statistics for a specified endpoint.

Command	Description
dsrtpcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsrudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsrudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

delrudptrunk

To delete an ISDN PRI backhaul Reliable User Datagram Protocol (RUDP) session that is associated with a Link Access Protocol D channel (LAPD), use the **delrudptrunk** command.

delrudptrunk <session_number>

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
-----------------------	---

Command Modes

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

Usage Guidelines

You must use the **dellapdtrunk** command to delete the LAPD trunk before you delete the RUDP trunk.

Examples

The following example shows that the ISDN PRI backhaul RUDP session number 51, which is associated with an LAPD, is deleted:

```
delrudptrunk 51
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsprtpcnt	Displays the bearer counters (statistics) for a specified RTP VoIP trunking connection.
dsprtpcon	Displays the configuration data of a specified static RTP VoIP trunking connection.

Command	Description
dsrtpcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsrudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsrudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

delses

To delete a PRI backhaul session, use the **delses** command.

```
delses <session_number>
```

Syntax Description

session_number Identifying session number in the range 1–64.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that session number 3 is deleted:

```
delses 3
```

Related Commands

Command	Description
addses	Adds a PRI backhaul session between a VISM card and a call agent.
dspses	Displays data about an individual PRI backhaul session.
dspsess	Displays data about all PRI backhaul sessions.

delsesgrp

To delete a PRI backhaul session group, use the **delsesgrp** command.

```
delsesgrp <group_number>
```

Syntax Description

<i>group_number</i>	Identifying session group number in the range 1–16.
---------------------	---

Command Modes

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

Usage Guidelines

You must delete all sessions in the session group before you use this command to delete the session group.

Examples

The following example shows that session group number 2 is deleted:

```
delsesgrp 2
```

Related Commands

Command	Description
addsesgrp	Adds a PRI backhaul session group between a VISM card and a call agent.
dspsesgrp	Displays data about a PRI backhaul session group.
dspsesgrps	Displays data about all PRI backhaul session groups.

delseset

To delete a PRI backhaul session set, use the **delseset** command.

delseset <set_number>

Syntax Description

set_number Identifying session set number. Range is 1–16.

Note Currently, only session set number 1 is supported.

Command Modes

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

Usage Guidelines

You must delete all session groups in the session set before you use this command to delete the session set.

Examples

The following example shows that session set number 1 is deleted:

```
delseset 1
```

Related Commands

Command	Description
addsset	Adds a PRI backhaul session set between a VISM card and a call agent.

deltoneplan

To delete a provisional tone plan from the system, use the **deltoneplan** command.

```
deltoneplan <tone_plan_region> <tone_plan_version>
```

Syntax Description

<i>tone_plan_region</i>	Tone plan country or region which you want to delete from VISM. Range is 1–64 alphanumeric characters. This argument is case sensitive.
<i>tone_plan_version</i>	Tone plan version number of the tone plan country or region you want to delete from VISM. Range is 1–65535.

Command Modes

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

Usage Guidelines

If the tone plan you want to delete is assigned to a VISM card line, you cannot delete the tone plan. Use the **dellntoneplan** command to remove a tone plan assignment from a VISM card line.

This command does not delete the tone plan file from the TFTP server, which allows you to use the **addtoneplan** command to add the tone plan back into the system, as needed.



Note

You cannot delete built-in tone plans from the system with this command.

Examples

The following example shows that the tone plan identified by the tone plan region name singapore and tone plan version number 11 is deleted from the current VISM card:

```
deltoneplan singapore 11
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimeout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimeout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.

Command	Description
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

delxgcpcon

To delete an xGCP connection specified by the xGCP connection identification number, use the **delxgcpcon** command.

```
delxgcpcon <connId>
```

Syntax Description	<i>connId</i> Connection identification number. Value is 4 bytes binary (in hex) up to 8 hexadecimal characters. Range is 0–9, A–F.						
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC						
Usage Guidelines	Follow standard CLI procedures for this command.						
Examples	<p>The following example shows that the connection represented by the hexadecimal connection identification number B is configured for gateway-initiated DLCX commands:</p> <pre>delxgcpcon b</pre>						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>dspxgcpcon</td> <td>Displays the attributes associated with a call agent established connection.</td> </tr> <tr> <td>dspxgcpcons</td> <td>Displays the xGCP connection ID, endpoint name, and call ID corresponding to each call agent established connection on the gateway.</td> </tr> </tbody> </table>	Command	Description	dspxgcpcon	Displays the attributes associated with a call agent established connection.	dspxgcpcons	Displays the xGCP connection ID, endpoint name, and call ID corresponding to each call agent established connection on the gateway.
Command	Description						
dspxgcpcon	Displays the attributes associated with a call agent established connection.						
dspxgcpcons	Displays the xGCP connection ID, endpoint name, and call ID corresponding to each call agent established connection on the gateway.						

delxgcppersistevt

To delete a persistent xGCP event, use the **delxgcppersistevt** command.

delxgcppersistevt *<index>*

Syntax Description	<i>index</i> Persistent event index package event number in the range 1–16.				
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC				
Usage Guidelines	Follow standard CLI procedures for this command.				
Examples	The following example shows that the persistent xGCP event represented by event number 1 is deleted: <pre>delxgcppersistevt 1</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>addxgcppersistevt</td> <td>Adds persistent xGCP events.</td> </tr> </tbody> </table>	Command	Description	addxgcppersistevt	Adds persistent xGCP events.
Command	Description				
addxgcppersistevt	Adds persistent xGCP events.				

dncon

To configure a specified connection down, preventing traffic from being passed to the specified connection, use the **dncon** command.

dncon <LCN>

Syntax Description

<i>LCN</i>	Logical channel number. Range is 131–510.
------------	---

Command Modes

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

Usage Guidelines

If you use this command and the previous channel state is active (up), a connection down trap is sent.

Examples

The following example shows that connection 188 is configured to be administratively down and no traffic is passed to it:

```
dncon 188
```

Related Commands

Command	Description
dspon	Displays the parameters for a specified channel.
upcon	Configures a specified connection up, allowing traffic to be passed to the specified connection.

dspaal2params

To display AAL2 configuration parameters, use the **dspaal2params** command.

dspaal2params

Syntax Description This command has no arguments or keywords.

Command Modes AAL2 trunking, switched AAL2 SVC, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines Use this command to display the following AAL2 configuration parameters:

- DTMF relay status
- CAS bit transport status
- Type3 redundancy status
- VAD timer value
- CID fill timer value

Examples The following example shows that the AAL2 configuration parameters are displayed:

```
dspaal2params
```

```
AAL2 DTMF RELAY:           Off
AAL2 CAS BITS TRANSPORT:  Off
AAL2 TYPE3 REDUNDANCY:    On
AAL2 VAD TIMER:           250
AAL2 CID FILL TIMER:      30
```

Related Commands

Command	Description
cnfaal2timerparams	Configures the holdover time for VAD before activating silence suppression on an AAL2 PVC.
cnfaal2transparams	Configures the transportation of DTMF and CAS bits to another endpoint and enables or disables the type 3 packet triple redundancy feature.

dspaal2profile

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

dspaal2profile <profileType> <profileNumber>

Syntax Description

<i>profileType</i>	Profile type to be used for the 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

Command Modes

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

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 respectively.

Examples

The following example shows that the data for AAL2 profile type 3 and profile number 110 is displayed:

```
dspaal2profile 3 110
  UUI      Packet      Packet  Seq. No.
Codepoint Length      Codec    SID     M     Time  Interval
  Range   (octets)          SIDG    M     (ms)  (ms)
  0-7     40      PCMU    SIDG    1     5     5
  0-7     40      PCMA    SIDG    1     5     5
  8-15    40      G726-32 SIDG    2    10     5
  8-15    30      G729ab  SID729  3    30     5
```

Related Commands

There are no related commands.

dspaggsvcbw

To display the configured, used, and available switched virtual connection (SVC) bandwidth, use the **dspaggsvcbw** command.

dspaggsvcbw

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, and VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows the SVC bandwidth.

```
dspaggsvcbw
Configured   :      50 cps
Used         :       0 cps
Available    :      50 cps
```

Related Commands	Command	Description
	cnfaggsvcbw	Sets the SVC bandwidth.

dspaissuppression

To show whether or not AIS suppression is enabled, use the **dspaissuppression** command.

dspaissuppression

Syntax Description This command has no arguments or keywords.

Command Modes AAL2 trunking

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows that AIS suppression is enabled.

```
cvgmgl1a.1.12.VISM8.a > dspaissuppression
AIS Suppression : ENABLED
```

Related Commands	Command	Description
	cnfaissuppression	Enables or disables AIS suppression.

dspalm

To display the alarms associated with a specified line, use the **dspalm** command.

dspalm -ds1 <LineNum>

Syntax Description	<table border="1"> <tr> <td>-ds1</td> <td>The mandatory <i>line-num</i> argument identifier.</td> </tr> <tr> <td><i>LineNum</i></td> <td>Line number of the T1 or E1 line for which you want to display alarms. Range is 1–8.</td> </tr> </table>	-ds1	The mandatory <i>line-num</i> argument identifier.	<i>LineNum</i>	Line number of the T1 or E1 line for which you want to display alarms. Range is 1–8.		
-ds1	The mandatory <i>line-num</i> argument identifier.						
<i>LineNum</i>	Line number of the T1 or E1 line for which you want to display alarms. Range is 1–8.						
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking						
Usage Guidelines	Follow standard CLI procedures for this command.						
Examples	<p>The following example shows that the line 1 alarms are displayed:</p> <pre>dspalm -ds1 1 LineNum: 1 LineAlarmState: Alarm(s) On -- XmtRAI RcvLOS LineStatisticalAlarmState: No Statistical Alarms</pre>						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>clralm</td> <td>Clears alarms on a specific VISM card line.</td> </tr> <tr> <td>dspalms</td> <td>Displays all alarms for a selected line type on a VISM card.</td> </tr> </tbody> </table>	Command	Description	clralm	Clears alarms on a specific VISM card line.	dspalms	Displays all alarms for a selected line type on a VISM card.
Command	Description						
clralm	Clears alarms on a specific VISM card line.						
dspalms	Displays all alarms for a selected line type on a VISM card.						

dspalmcnf

To display the threshold data about the alarm statistics being collected, use the **dspalmcnf** command.

dspalmcnf -ds1 <LineNum>

Syntax Description

-ds1	The mandatory <i>line-num</i> argument identifier.
<i>LineNum</i>	Line number of the T1 or E1 line for which you want to display alarm statistic threshold 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, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the alarm statistic threshold data for line 1 is displayed:

```
dspalmcnf -ds1 1
```

```
LineNum:                1
  RedSeverity:           Major
  RAISeverity:           Minor
  NEAlarmUpCount:       6
  NEAlarmDnCount:       1
  NEAlarmThreshold:     1500
  FEAlarmUpCount:       6
  FEAlarmDnCount:       1
  FEAlarmThreshold:     1500
  StatisticalAlarmSeverity: Minor
  LCV15minThreshold:    14
  LCV24hrThreshold:     134
  LES15minThreshold:    12
  LES24hrThreshold:     121
  LSES15minThreshold:   10
  LSES24hrThreshold:    100
  CRC15minThreshold:    14
  CRC24hrThreshold:     134
  CRCE15minThreshold:   12
  CRCE24hrThreshold:    121
  CRCSES15minThreshold: 10
  CRCSES24hrThreshold: 100
  SEFS15minThreshold:   2
  SEFS24hrThreshold:    17
  AISS15minThreshold:   2
  AISS24hrThreshold:    17
  UAS15minThreshold:    10
```

Related Commands

Command	Description
cnfalmcnt	Configures the collection of TDM line statistics.
dspalm	Displays the alarms associated with a specified line.
dspalms	Displays all alarms for the selected line type on a card.

dspalmcnt

To display alarm counters and statistics, use the **dspalmcnt** command.

dspalmcnt -ds1 <LineNum>

Syntax Description	-ds1	The mandatory <i>line-num</i> argument identifier.
	<i>LineNum</i>	Line number of the T1 or E1 line for which you want to alarm counters and statistics. Range is 1–8.

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

Usage Guidelines See the **cnfalmcnt** command description for a list of the TDM line statistics that are collected and then displayed by this command.

Examples The following example shows that the alarm counters and statistics for line 1 are displayed:

```
dspalmcnt -ds1 1
LineNum:                1
  LCVCurrent:            0
  LCVLast15minBucket:   0
  LCVLast24hrBucket:    0
  LESCurrent:           0
  LESLast15minBucket:   0
  LESLast24hrBucket:    0
  LSESCurrent:          0
  LSESLast15minBucket:  0
  LSESLast24hrBucket:   0
  CRCCurrent:           0
  CRCLast15minBucket:   0
  CRCLast24hrBucket:    0
  CRCESCurrent:         0
  CRCESLast15minBucket: 0
  CRCESLast24hrBucket:  0
  CRCSESCurrent:        0
  CRCSESLast15minBucket: 0
  CRCSESLast24hrBucket: 0
  sEFSCurrent:          430
  sEFSLast15minBucket:  900
  sEFSLast24hrBucket:  11699
  aISSCurrent:          0
  aISSLast15minBucket:  0
  aISSLast24hrBucket:   0
  uASCurrent:           430
  uASLast15minBucket:   900
  uASLast24hrBucket:   11696
  percentEFS:           100
  RcvLOSCount:          1
  RcvOOFCount:          1
  RcvRAICount:          0
  RcvFECCount:          97997379
```


Related Commands

Command	Description
clralmct	Clears the alarm counters and statistics on a specified VISM card line.
clralmctns	Clears all alarm counters and statistics on a VISM card.
dspalmcnf	Displays the threshold data about the alarm statistics being collected.

dspalms

To display the alarms for a specified VISM card line type, use the **dspalms** command.

dspalms <lineType>

Syntax Description

lineType Line type is -ds1 for T1 or E1 lines.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the alarms for the T1 line type are displayed:

```
dspalms -ds1
```

```
Line AlarmState StatisticalAlarmState
---- -
5.1 No Alarms No Statistical Alarms
5.2 No Alarms No Statistical Alarms
5.3 No Alarms No Statistical Alarms
```

Related Commands

Command	Description
dspalm	Displays the alarms associated with a specified line.

dspannagetime

To display the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache, use the **dspannagetime** command.

dspannagetime

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the age time for nonpermanent announcements is two hours. After two hours the nonpermanent announcements are refreshed from the announcement file server:

```
dspannagetime
Announcement Age Time: 120 minutes
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfannndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.

Command	Description
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

dspanncache

To display all available temporary announcement file names, and associated age times before being refreshed from the announcement file server, contained in the current VISM card, use the **dspanncache** command.

dspanncache

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the temporary announcement file names zero and one are each configured with an age time of 1000 minutes:

```
dspanncache

File Name      Codec   Time Till Aged
zero           1       1000
one            2       1000
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfanndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfanreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.

Command	Description
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.
dspannreqtimeout	Displays the expiration time for announcements to begin playing before being aborted.

dspanncontrols

To display a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands, use the **dspanncontrols** command.

dspanncontrols

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows a summary list of all provisionable announcement file variables:

```
dspanncontrols
Announcement Table Size:      125 entries
Announcement File Server:    server1
Announcement Age Time:       10080 minutes
Announcement Preference Codec: G711.a
Announcement Prefix Path:    path1
Announcement Req Timeout:    5 seconds
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfanndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.

Command	Description
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.
dspannreqtimeout	Displays the expiration time for announcements to begin playing before being aborted.

dspanndn

To display the announcement file server domain name, use the **dspanndn** command.

dspanndn

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the name of the announcement file server is displayed:

```
dspanndn
Announcement File Server: announceserver3
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfannndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.

Command	Description
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

dspannpathprefix

To display the main prefix directory path from which VISM retrieves announcement files from the announcement file server, use the **dspannpathprefix** command.

dspannpathprefix

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that a main prefix directory TFTP path is path4:

```
dspannpathprefix
Announcement Prefix Path: path4
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfannn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.

Command	Description
dspanndn	Displays the announcement file server domain name.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

dspannpermanents

To display all available permanent announcement files with their associated codec types and identifying index numbers, use the **dspannpermanents** command.

dspannpermanents

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the available permanent announcement files with associated codec types and identifying index numbers are displayed:

```
dspannpermanents
```

Number	Status	File Name	Codec
1	loaded	alllinesbusy.au	G.726-40K

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfanndn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.

Command	Description
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

dspannprefcodec

To display the codec type used for announcements played on unconnected Time Division Multiplex (TDM) endpoints, use the **dspannprefcodec** command.

dspannprefcodec

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the G.711u codec type is configured for announcements played on unconnected TDM endpoints:

```
dspannprefcodec
Announcement Preference Codec: G.711u
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfannn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.

Command	Description
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.

dspannreqtimeout

To display the expiration time for announcements to begin playing before being aborted, use the **dspannreqtimeout** command.

dspannreqtimeout

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the announcements must begin playing by 12 seconds or they will be aborted:

```
dspannreqtimeout
```

```
Announcement Req Timeout: 12 seconds
```

Related Commands

Command	Description
addannpermanent	Configures an announcement server file and associated codec type as permanent.
cnfannagetime	Configures the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
cnfannn	Designates an announcement file server domain name.
cnfannpathprefix	Designates the main prefix directory TFTP path from which to retrieve announcement files from the announcement file server.
cnfannprefcodec	Configures the codec type used for announcements played on unconnected TDM endpoints.
cnfannreqtimeout	Configures the expiration time for announcements to begin playing after the VISM receives the announcement signal (request) from the call agent.
delannalldynamic	Deletes all announcement files and their associated codec types from the temporary announcement files currently saved in the VISM card.
delanndynamic	Deletes an announcement file and associated codec type from the temporary announcement files currently saved in the VISM card.
delannpermanent	Deletes a permanent announcement file and its associated codec type from the announcement file server.
dspannagetime	Displays the time that a nonpermanent announcement is to remain valid after it is placed into the VISM announcement cache.
dspanncache	Displays all available temporary announcement file names, and associated age times before being refreshed from the announcement file server.

Command	Description
dspanncontrols	Displays a summary list of all provisionable announcement file variables, including variables associated with all announcement file CLI commands.
dspanndn	Displays the announcement file server domain name.
dspannpathprefix	Displays the main prefix directory path from which VISM retrieves announcement files from the announcement file server.
dspannpermanents	Displays all available permanent announcement files with their associated codec types and identifying index numbers.
dspannprefcodec	Displays the codec type used for announcements played on unconnected TDM endpoints.

dspavgsvctimes

To display the table of switched virtual connection (SVC) service access point identifier (SAPI) message processing statistic averages, use the **dspavgsvctimes** command. This command starts a menu-driven interface that enables you to refresh the screen with current counts, refresh the listed counters, or quit.

dspavgsvctimes

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, and VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following examples show the SVC statistics averages. The average times column is always the processing time across all SVC call table indices.

This example shows the output from the originating side.

```
dspavgsvctimes

Originating End:
-----
  SETUP_IND-CONNECT      0.0 0.0      186
  CONNECT-CONN_ACK_IND  161.0 6.7      186

Terminating End:
  SETUP-CALL_PROC_IND    0.0    0.0         0
  SETUP-CONN_IND         0.0    0.0         0
  CALLPROC_CONNECT      0.0    0.0         0
  CONN_IND-CONN_ACK     0.0    0.0         0

  RELEASE-RELCOM_IND     0.0    0.0         0
  RELEASE_IND-RELCOM    0.0    0.0         0

(z)-zero average counts (r)-refresh (q)-quit
```

```
Originating End:
-----
  SETUP_IND-CONNECT      0.0    0.0      186
  CONNECT-CONN_ACK_IND  161.0    6.7      186

Terminating End:
  SETUP-CALL_PROC_IND    0.0    0.0         0
  SETUP-CONN_IND         0.0    0.0         0
  CALLPROC_CONNECT      0.0    0.0         0
  CONN_IND-CONN_ACK     0.0    0.0         0

  RELEASE-RELCOM_IND     0.0    0.0         0
  RELEASE_IND-RELCOM    0.0    0.0         0

(z)-zero average counts (r)-refresh (q)-quit
```

This example shows the output from the terminating side:

dspavgsvctimes

	curr(ms)	Avg(ms)	n
Originating End: -----			
SETUP_IND-CONNECT	0.0	0.0	0
CONNECT-CONN_ACK_IND	0.0	0.0	0
Terminating End:			
SETUP-CALL_PROC_IND	23225.0	12.8	31
SETUP-CONN_IND	24838.0	13.3	31
CALLPROC_CONNECT	1612.0	1.3	31
CONN_IND-CONN_ACK	0.0	0.0	31
RELEASE-RELCOM_IND	0.0	0.0	0
RELEASE_IND-RELCOM	0.0	0.0	0

(z)-zero average counts (r)-refresh (q)-quitdspavgsvctimes

	curr(ms)	Avg(ms)	n
Originating End: -----			
SETUP_IND-CONNECT	0.0	0.0	0
CONNECT-CONN_ACK_IND	0.0	0.0	0
Terminating End:			
SETUP-CALL_PROC_IND	23225.0	12.8	31
SETUP-CONN_IND	24838.0	13.3	31
CALLPROC_CONNECT	1612.0	1.3	31
CONN_IND-CONN_ACK	0.0	0.0	31
RELEASE-RELCOM_IND	0.0	0.0	0
RELEASE_IND-RELCOM	0.0	0.0	0

(z)-zero average counts (r)-refresh (q)-quitq

Related Commands

There are no related commands.

dspcacfailcntrs

To display the connection admission control (CAC) failure counters that are set to 0, use the **dspcacfailcntrs** command.

dspcacfailcntrs

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Use this command for debugging purposes—to reset counters and isolate VISM CAC-related failures. Counter values greater than 0 indicate that the gateway is low on resources.

Examples

The following example shows that the CAC failure counters that are set to 0 are displayed:

```
dspcacfailcntrs

PVC Addition Failures      :0
SVC Addition Failures     :0
VC CAC Failures for PVCs  :0
PVC Upspeed Failures      :0
SVC Upspeed Failures      :0
```

Related Commands

Command	Description
clrcacfailcntrs	Resets the CAC failure counters to 0.

dspcalea

To display the Communications Assistance for Law Enforcement Act (CALEA) feature configuration status of the current VISM card, use the **dspcalea** command.

dspcalea

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the CALEA feature is enabled on the current VISM card:

```
dspcalea
CALEA: enable
```

Related Commands

Command	Description
addcon	Adds a PVC connection between a VISM card and any SM or PXM card.
cnfcalea	Enables or disables the CALEA feature on the current VISM card.
cnfcon	Configures a connection between a VISM card and an MGX 8000 Series platform PXM card.
dspvismparam	Displays the current VISM card configuration.

dspcarddsp

To display all card level configuration parameters for both echo cancellation (ECAN) and voice compression DSPs, use the **dspcarddsp** command.

dspcarddsp

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines The packetization period and default type of service parameters apply to the VoIP switching/trunking operating mode only.

Examples The following example shows that the card level configuration parameters for ECAN and voice compression DSPs are displayed:

```
dspcarddsp

IdlePattern:           0x7f or 0xff
IdleDirection:        Both
PacketSize:            80 bytes
DB loss:               sixdb
Jitter buffer mode:    fixed
Jitter buffer size:    forty msec
Adaptive Gain Control: off
```

Related Commands There are no related commands.

dspcasendpts

To display data about configured channel associated signaling (CAS) endpoints, use the **dspcasendpts** command.

dspcasendpts

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the CAS endpoint configuration data is displayed:

```
dspcasendpts
```

```
Endpts0Num CasVarName CasOnTime CasOffTime
-----
 2         2         immd         75         75
 5         5         wink         75         75
10        10         wink         75         75
```

Related Commands	Command	Description
	dspcasvarendpts	Displays all endpoints associated with a specified CAS variant name.

dspcasglareattrib

To display the direction of channel associated signaling (CAS) calls and the glare policy for a specified endpoint, use the **dspcasglareattrib** command.

```
dspcasglareattrib <endpt_num>
```

Syntax Description	<i>endpt_num</i>	Endpoint number for which you want to display the CAS glare attributes. Ranges are
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the CAS glare attributes for endpoint number 204 are displayed:

```
dspcasglareattrib 204

Ds0IfIndex:      204
Cas Diretionality: incoming
Cas Glare Policy: controlling
```

Related Commands	Command	Description
	addxgcppersistevt	Adds persistent xGCP events.
	cnfcasflashtime	Configures the minimum and maximum CAS on-hook time periods for incoming flash hooks on a specified endpoint.
	cnfcasglareattrib	Configures the direction of CAS calls and the glare policy for a specified endpoint.
	cnfcaspackage	Configures MGCP packages to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
	cnflndigitorder	Assigns the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.
	delxgcppersistevt	Deletes a persistent xGCP event.
	dspcaspackage	Displays the MGCP packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
	dspcastimers	Displays the currently configured CAS timers for a specified endpoint.
	dsplndigitorder	Displays the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.

dspcaspackage

To display the Media Gateway Control Protocol (MGCP) packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint, use the **dspcaspackage** command.

```
dspcaspackage <endpt_num>
```

Syntax Description	<i>endpt_num</i>	Endpoint number for which you want to display the CAS packages. Ranges are
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248

Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking
----------------------	--

Usage Guidelines	Follow standard CLI procedures for this command.
-------------------------	--

Examples	The following example shows that the MGCP packages for incoming and outgoing calls on endpoint number 49 are displayed:
-----------------	---

```
dspcaspackage 49
```

```
DsOfIndex:      49
incoming CAS Pkg: MS
Outgoing CAS Pkg: DT
```

Related Commands	Command	Description
	addxgcppersistevt	Adds persistent xGCP events.
	cnfcasflashtime	Configures the minimum and maximum CAS on-hook time periods for incoming flash hooks on a specified endpoint.
	cnfcasglareattrib	Configures the direction of CAS calls and the glare policy for a specified endpoint.
	cnfcaspackage	Configures MGCP packages to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
	cnflndigitorder	Assigns the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.
	delxgcppersistevt	Deletes a persistent xGCP event.
	dspcasglareattrib	Displays the direction of CAS calls and the glare policy for a specified endpoint.
	dspcastimers	Displays the currently configured CAS timers for a specified endpoint.
	dsplndigitorder	Displays the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.

dspcasparamsource

To display the currently configured timer source parameters for channel associated signaling (CAS) of a specified endpoint, use the **dspcasparamsource** command.

dspcasparamsource *<endpt_num>*

Syntax Description	<i>endpt_num</i>	Endpoint number for which you want to display the CAS parameter source. Ranges are
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the CAS parameter source for endpoint number 1 is displayed:

```
dspcasparamsource 1
Ds0IfIndex:          1
CasParameterSource: MibValue
```

■ dspcasparamsource

Related Commands

Command	Description
cnfcasparamsource	Configures an endpoint's CAS-related timer parameters source.

dspcastimers

To display the currently configured channel associated signaling (CAS) timers for a specified endpoint, use the **dspcastimers** command.

dspcastimers <endpt_num>

Syntax Description	endpt_num	Endpoint number for which you want to display the currently configured CAS timers. Ranges are
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the currently configured CAS timers for endpoint number 1 are displayed:

```
dspcastimers 1

Ds0IfIndex:          1
CasOnHookMinMakeTime: 300
CasOffHookMinMakeTime: 20
CasWinkMinMakeTime:  100
```

```

CasWinkMaxMakeTime:    1000
CasWinkBreakTime:      20
CasGlareTime:          500
CasGuardTime:          800
CasDialDelayTime:      500
CasFlashMinMakeTime:   300
CasFlashMaxMakeTime:   900

```

Related Commands

Command	Description
addxcgppersistevt	Adds persistent xGCP events.
cnfcasdialdelay	Configures the VISM wait time (dial delay) for outpulsing digits to the PBX after sending an off-hook event.
cnfcasflashtime	Configures the minimum and maximum CAS on-hook time periods for incoming flash hooks on a specified endpoint.
cnfcasglareattrib	Configures the direction of CAS calls and the glare policy for a specified endpoint.
cnfcasguardtime	Configures the CAS guard time for an endpoint.
cnfcasoffhooktime	Configures a minimum presence time, on an endpoint, for a CAS off-hook pattern to be recognized as an off-hook signal.
cnfcasonhooktime	Configures a minimum presence time, on an endpoint, for a CAS on-hook pattern to be recognized as an on-hook signal.
cnfcaspackage	Configures MGCP packages to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
dspcasglareattrib	Displays the direction of CAS calls and the glare policy for a specified endpoint.
dspcaspackage	Displays the MGCP packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.

dspcasvar

To display data about channel associated signaling (CAS) variants for a given variant name, use the **dspcasvar** command.

```
dspcasvar <variant_name>
```

Syntax Description

variant_name Name of the CAS variant. Range is a text string of 1–64 alphanumeric characters.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command

Examples

The following example shows that the CAS variant data for the CAS variant identified by the name first is displayed:

```
dspcasvar first

CasVariantName:      first
CasFileName:         wink.dod
Ringing time:        30
Digit method:        DTMF
Partial dial timing: 16
Critical dial timing: 4
Interdigit timeout:  1
CasVariantState:     configured
CasRowStatus:        Add
Country code:        US
```

Related Commands

Command	Description
addcasvar	Adds a CAS variant to a VISM card.
cnfcasvar	Configures CAS variant and CAS timing parameters for a variant already created with the addcasvar command.
delcasvar	Deletes a CAS variant.

dspcasvarendpts

To display all endpoints associated with a specified channel associated signaling (CAS) variant name, use the **dspcasvarendpts** command.

dspcasvarendpts *<variant_name>*

Syntax Description

variant_name Name of the CAS variant. Range is a text string of 1–64 alphanumeric characters.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that no endpoints are associated with the var1 CAS variant:

```
dspcasvarendpts var1
There are no endpoints configured with CAS variant var1
```

Related Commands

Command	Description
dspcasendpts	Displays data about configured CAS endpoints.

dspcasvars

To display the parameters of all channel associated signaling (CAS) variants configured on a VISM card, use the **dspcasvars** command.

dspcasvars

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

This command displays the following data for each CAS variant:

- Variant name
- File name
- Digit method
- Country code

Examples

The following example shows that the parameters of all configured CAS variants are displayed for the current VISM card:

```
dspcasvars
```

VariantName	FileName	DigitMethod	CountryCode
-----	-----	-----	-----
first	wink.dod	DTMF	US
second	ring.dod	DTMF	US

Related Commands

Command	Description
addcasvar	Adds a CAS variant to a VISM card.
cnfcasvar	Configures CAS variant and CAS timing parameters for a variant already created with the addcasvar command.
delcasvar	Deletes a CAS variant.
dspcasvar	Displays information about CAS variants for a given variant name.

dspcasxgcps

To display timer parameters for the channel associated signaling/gateway control protocol (CAS/xGCP) backhaul, use the **dspcasxgcps** command.

dspcasxgcps

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the CAS/xGCP backhaul timer parameters are displayed:

```
dspcasxgcps

VariantName      FileName      ReXmitTime      InitReXmitTime  Retry
-----
      first      wink.dod        500             100              4
      second     ring.dod        500             100              4
```

Related Commands There are no related commands.

dspccs

To display the configuration data of a previously added common channel signaling (CCS) channel, use the **dspccs** command.

```
dspccs <line_number> <ds0_number>
```

Syntax Description

<i>line_number</i>	Line number of the previously added CCS channel. Range is 1–8.
<i>ds0_number</i>	DS0 number of the previously added CCS channel. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data of the CCS channel identified by line number 1 and DS0 number 10 are displayed:

```
dspccs 1 10

ds0IfIndex:    10
RowStatus:     active
LcnNum:        36
MaxFrameSize: 300
```

Related Commands

Command	Description
addccs	Adds a CCS channel (D channel) to a VISM card.
delccs	Deletes the association between a CCS (DS0) channel and its corresponding virtual channel.
dspccschans	Displays all CCS configured channels.

dspccschans

To display all channels that are configured as common channel signaling (CCS) channels, use the **dspccschans** command.

dspccschans

Syntax Description This command has no arguments or keywords.

Command Modes AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that all CCS configured channels are displayed:

```

dspccschans

ds0 If      Row   Lcn   Max Frame
Index      Status  Num   Size
-----
10         active  36    300

```

Related Commands

Command	Description
addccs	Adds a CCS channel (D channel) to a VISM card.
delccs	Deletes the association between a CCS (DS0) channel and its corresponding virtual channel.
dsppcs	Displays the configuration data of a previously added CCS channel.

dspccsnt

To display the common channel signaling (CCS) counter values for a specified line and DS0, use the **dspccsnt** command.

```
dspccsnt <line_number> <ds0_number>
```

Syntax Description	<i>line-num</i>	Line number for which you want to display the CCS counter values. Range is 1–8.
	<i>ds0-num</i>	DS0 number of which you want to display the CCS counter values. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

Command Modes AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the CCS counter values for line number 1, DS0 10 are displayed:

```
dspccsnt 1 10

ds0IfIndex:          10
TxFrameCount:        0
RxFrameCount:        0
RxCRCErrCount:      0
RxBufOverflowCount: 0
TxUnderflowCount:    0
TxAbortCount:        0
RxAbortCount:        0
```

Related Commands There are no related commands.

dspcctimes

To display the call control MGCP message processing statistics, use the **dspcctimes** command.

dspcctimes <connIndex>

Syntax Description	connIndex	Connection ID. Range is 1–255.
--------------------	-----------	--------------------------------

Command Modes	AAL1 switching, switched AAL2 SVC, and VoIP and AAL1 SVC
---------------	--

Usage Guidelines	Follow standard CLI procedures when using this command.
------------------	---

Examples	The following example shows the MGCP message processing statistics for connection 2.
----------	--

```
dspcctimes 2

connIndex:2
SVC Call Table Index:2
ORIG/TERM :ORIG

      curr(ms)  Avg(ms)      n
-----
Originating End:
CRCX - CRCX_ACK    10.0    17.0    62
MDCX - MDCX_ACK     0.0     1.0    62
DLCX - DLCX_ACK           0.0     0.0     0

Terminating End:
CRCX - CRCX_ACK     0.0     0.0     0
CRCX - NTFY         0.0     0.0     0
DLCX - DLCX_ACK           0.0     0.0     0

Overhead:
DMCI Conn: -1377937124.0  7571466.0    62
DMCI Disc:      0.0      0.0      0

      (z)-zero average counts  (r)-refresh  (q)-quit

Terminating End of the call:
-----
MGX24.1.11.VISM8.a > dspcctimes 2

connIndex:2
SVC Call Table Index:2
ORIG/TERM :TERM

      curr(ms)  Avg(ms)      n
-----
Originating End:
CRCX - CRCX_ACK     0.0     0.0     0
MDCX - MDCX_ACK     0.0     0.0     0
DLCX - DLCX_ACK           0.0     0.0     0
```



```
Terminating End:
  CRCX - CRCX_ACK      10.0      8.0      62
  CRCX - NTFY          120.0    429.0    62
  DLCX - DLCX_ACK      0.0      0.0      0

Overhead:
DMCI Conn:      -1377936944.0  7571739.0  62
DMCI Disc:      0.0      0.0      0
(z)-zero average counts (r)-refresh (q)-quit
```

Related Commands There are no related commands.

dspcd

To display the current VISM card's configuration, status, and hardware and firmware configuration data, use the **dspcd** command.

dspcd

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

The VISM card configuration data displayed includes serial number and hardware and firmware revision levels.

Examples

The following example shows that the current VISM card configuration data is displayed:

```
dspcd

ModuleSlotNumber:          17
  FunctionModuleState:      Active
  FunctionModuleType:       VISM-8T1
  FunctionModuleSerialNum:  xxxxxxxxxx
  FunctionModuleHWRev:      0.0
  FunctionModuleFWRev:      1.5.0_11Nov01_2
  FunctionModuleResetReason: ?
  LineModuleType:           LM-RJ48-8T1
  LineModuleState:          Present
  mibVersionNumber:         21
  configChangeTypeBitMap:   CardCnfChng, LineCnfChng
  pcb part no - (800 level): 800-xxxxx-xx
  pcb part no - (73 level):  73-xxxxx-xx
  Fab Part no - (28 level):  28-xxxxx-xx
  PCB Revision:             08

Daughter Card Information:
  Daughter Card Serial Number: xxxxxxxxxxxx
  pcb part no - (73 level):    73-xxxxx-xx
  Fab Part no - (28 level):    28-xxxxx-xx
  PCB Revision:               04
```

Related Commands

Command	Description
dspcds	Displays a list of chassis card types, with associated slot numbers, card status, alarm status, and redundancy status.
version	Displays version-related information for a VISM card.

dspcds

To display a list of chassis card types, with associated slot numbers, card status, alarm status, and redundancy status, use the **dspcds** command.

dspcds

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the list of chassis card types, with associated status data, are displayed:

```
dspcds
```

```
Slot  CardState  CardType  CardAlarm  Redundancy
----  -
1.1   Empty        .         Clear      .
1.2   Active       VISM-8T1  Clear      .
.
.
1.32  Active       VISM-8E1  Clear      .
```

Related Commands

Command	Description
dspcd	Displays the current VISM card's configuration, status, and hardware and firmware configuration data.
version	Displays version-related information for a VISM card.

dspcid

To display the configuration data of an AAL2 channel identifier (CID) on the current VISM card, use the **dspcid** command.

```
dspcid <LCN> <cid_number>
```

Syntax Description

<i>LCN</i>	Logical channel number of the LCN/CID pair. Range is 131–510.
<i>cid_number</i>	Channel identification number of the LCN/CID pair. Range is 8–255.

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data of the AAL2 CID identified by LCN 131 and CID 101 is displayed:

```
dspcid 131 101
```

```
LCN number :          131
CID number:          101
Endpoint number :    1
CidRowStatus:       active
Type3redundancy:    enabled
VAD:                enabled
VADInitTimer:       250
Profile type:        ITU
Profile number:     2
Codec type:          G.711u
Cas transport:       enabled
DTMF transport:     enabled
Ecan on/off:         enabled
ICS enable:          Disabled
pkt period:          5
Cid state:           Active
```

Related Commands

Command	Description
addcid	Adds an AAL2 CID on a VISM card.
delcid	Deletes the association between an endpoint and an LCN/CID pair.
dspsids	Displays all AAL2 CIDs for a specified LCN on a VISM card.

dspcids

To display all AAL2 channel identifiers (CIDs) for an LCN on the current VISM card, use the **dspcids** command.

dspcids <LCN>

Syntax Description

<i>LCN</i>	Logical channel number of the LCN for which you want to display AAL2 CIDs. Range is 131–510.
------------	--

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the AAL2 CIDs are displayed for LCN 132:

```
dspcids 132
```

```
lcn CID Endpt  Cid  Type3      VAD  Prof  Prof  Codec  Cas  DTMF
Num Num  Num  Status Redun VAD  Timer Type  Num   Type   Tran Tran Ecan
-----
132  9   1  active  ena  ena   250   ITU   1    G.711u ena  ena  ena
```

Related Commands

Command	Description
addcid	Adds an AAL2 CID on a VISM card.
delcid	Deletes the association between an endpoint and an LCN/CID pair.
dspcid	Displays the configuration data of an AAL2 CID on the current VISM card.

dspco1timer

To display the bearer continuity test CO1 timer value, use the **dspco1timer** command.

dspco1timer

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the bearer continuity test CO1 timer is set at 3 seconds:

```
dspco1timer
CO1 timer value: 3
```

Related Commands

Command	Description
cnfco1timer	Configures the bearer continuity test CO1 timer value.
dspvismparam	Displays the current VISM card configuration.

dspco2timer

To display the bearer continuity test CO2 timer value, use the **dspco2timer** command.

dspco2timer

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the bearer continuity test CO2 timer is set at 60 seconds.

```
dspco2timer
CO2 timer value: 60
```

Related Commands	Command	Description
	cnfco2timer	Configures the bearer continuity test CO2 timer value.
	dspvismparam	Displays the current VISM card configuration.

dspco4timer

To display the bearer continuity test CO4 timer value, use the **dspco4timer** command.

dspco4timer

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the bearer continuity test CO4 timer is set at 1000 ms:

```
dspco4timer
CO4 timer value: 1000
```

Related Commands

Command	Description
cnfco4timer	Configures the bearer continuity test CO4 timer value.
dspvismparam	Displays the current VISM card configuration.

dspcodecjtrdelays

To display the configured codec jitter delay modes and associated jitter initial delays, use the **dspcodecjtrdelays** command.

dspcodecjtrdelays

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configured codec jitter delay modes and associated jitter initial delays are displayed:

```
dspcodecjtrdelays
```

codecType	delay mode	initial delay
1 - G.711u	fixed	hundred
2 - G.711a	fixed	hundred
3 - G.726-32K	adaptive	sixty
4 - G.729a	adaptive	sixty
5 - G.729ab	adaptive	sixty
6 - clr chan	fixed	hundred
7 - G.726-16K	adaptive	sixty
8 - G.726-24K	adaptive	sixty
9 - G.726-40K	adaptive	sixty
11 - G.723.1-H	adaptive	sixty
12 - G.723.1a-H	adaptive	sixty
13 - G.723.1-L	adaptive	sixty
14 - G.723.1a-L	adaptive	sixty
15 - Lossless	fixed	sixteen

Related Commands

Command	Description
cnfcodecjtrdelay	Configures the jitter delay mode and initial delay value for a specified codec.

dspcodecneg

To display the codec negotiation option, use the **dspcodecneg** command.

dspcodecneg

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the codec negotiation option you configured using the **cnfcodecneg** command:

```
dspcodecneg
Codec Negotiation Option = 1
```

Related Commands	Command	Description
	cnfcodecneg	Configures the negotiation option.

dspcodeparams

To display codec parameters, use the **dspcodeparams** command in the VoIP switching/trunking operating mode.

dspcodeparams

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, AAL1 switching, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines The following data, codec parameters, are displayed when you use this command:

- Codec type
- xGCP codec string
- Packetization period
- Preference
- IANA registered codec type



Note

Because the preference of any codec can be configured regardless of the current codec template, all codecs displayed by this command may not be available in the current codec template.

Examples The following example shows that the codec parameters are displayed:

```
dspcodeparams
```

codecType	codecString	pktPeriod (ms)	Preference	ianaCodecType
1 - G.711u	PCMU	10	7	0
2 - G.711a	PCMA	10	8	8
3 - G.726-32K	G.726-32	10	5	2
4 - G.729a	G729a	10	2	96
5 - G.729ab	G729ab	10	1	96
6 - clr chan	CCD	10	9	96
7 - G.726-16K	G.726-16	10	3	96
8 - G.726-24K	G.726-24	10	4	96
9 - G.726-40K	G.726-40	10	6	96

Related Commands

Command	Description
cnfcodecmpl	Assigns a codec template to a VISM card.
dspcodecmpls	Displays all entries in the codec template table.

dspcodectmpls

To display all entries in the codec template table, use the **dspcodectmpls** command.

dspcodectmpls

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines VISM maintains a table of codec templates; each entry in the table contains the following:

- Codec template number
- Codecs supported
- Maximum number of DS0s supported by the template

Examples The following example shows that all entries in the codec template table are displayed:

```
dspcodectmpls
```

codecTemplateName	codecSupported	MaxChanCount
1	G.711u, G.711a, G.729a, G.729ab, G.726-32K, CLR-CHAN, G.726-16K, G.726-24K, G.726-40K codecs;	192
2	G.711u and G.711a uncompressed and CLR-CHAN codecs;	192
3	Template#1 with T38 Support: G.711u, G.711a, G.729a, G.729ab, G.726-32K, CLR-CHAN, G.726-16K, G.726-24K, G.726-40K codecs;	192
4	G.711u, G.711a, G.729a, G.729ab, G.726-32K, CLR-CHAN, G.726-16K, G.726-24K, G.726-40K, G.723.1-H, G.723.1a-H, G.723.1-L, G.723.1a-L codecs, T.38 support;	144
5	G.711u, G.711a, G.729a, G.729ab, G.726-32K, CLR-CHAN, G.726-16K,	192

RelatedCommands

Command	Description
cnfcodectmpl	Assigns a codec template to a VISM card.
dspscodeparams	Displays codec parameters.

dspcon

To display the configuration data of a channel, use the **dspcon** command.

dspcon <LCN>

Syntax Description	<i>LCN</i> Logical channel number for which to display configuration data. Range is 131–510.
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the configuration data for LCN 136 is displayed:

```
dspcon 136

ChanNum:                136
ChanRowStatus:          Add
ChanLocalRemoteLpbkState: Disabled
ChanTestType:           TestOff
ChanTestState:          NotInProgress
ChanRTDresult:          65535 ms
ChanPortNum:            1
ChanPvcType:            AAL5
ChanConnectionType:    PVC
ChanLocalVpi:           0
ChanLocalVci:           36
ChanLocalNSAP:          646174616d767232000000000000000005000100
ChanRemoteVpi:          44
ChanRemoteVci:          44
ChanRemoteNSAP:         646174616d767232000000000000000000000200
ChanMastership:         Master
ChanVpcFlag:            Vcc
ChanConnServiceType:   CBR
ChanRoutingPriority:    1
ChanMaxCost:            255
ChanRestrictTrunkType: No Restriction
ChanConnPCR:            400
ChanConnPercentUtil:   100
ChanPreference:         1
ChanRemotePCR:          400
ChanRemotePercentUtil: 100
ChanProtection:        unprotected
ChanActivityState:     unknown
ChanLockingState:      unlock
ChanApplication:       signaling
ChanServiceType:       cbr
ChanScrIngress:        0
ChanMbsIngress:        0
ChanNumNextAvailable:  137
ChanVCCI:               0
ChanFarEndAddrType:    notapplicable
```

■ dspcon

```
ChanFarEndE164Addr:      0
ChanFarEndGWIDAddr:     .
ChanFarEndNSAPAddr:     NULL NSAP
```

Related Commands

Command	Description
addcon	Adds a PVC connection between a VISM card and any SM or PXM card.
delcon	Deletes a connection (PVC) between a VISM card and a Cisco MGX 8000 Series platform PXM card.

dspconcac

To display connection admission control (CAC) configuration data for a connection, use the **dspconcac** command.

dspconcac <LCN>

Syntax Description	<i>LCN</i> Logical channel number for which to display CAC configuration data. Range is 131–510.				
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking				
Usage Guidelines	Follow standard CLI procedures for this command.				
Examples	<p>The following example shows that the CAC configuration data for LCN 131 is displayed:</p> <pre>dspconcac 131 LCN : 131 MasterShip : Master Vad Tolerance : 100 Vad Duty Cycle : 61 Rejecton Policy : 3 Carrier Loss Policy : 3 Accepted Connections : 24 Rejected Connections : 0 Effective Cell Rate : 6000 cps Used Cell Rate : 3200 cps Available Cell Rate : 2800 cps</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>cnfconcac</td> <td>Configures CAC on a previously added connection.</td> </tr> </tbody> </table>	Command	Description	cnfconcac	Configures CAC on a previously added connection.
Command	Description				
cnfconcac	Configures CAC on a previously added connection.				

dspconcnt

To display counter configuration data (channel state) of a connection, use the **dspconcnt** command.

dspconcnt <LCN>

Syntax Description	<i>LCN</i> Logical channel number for which to display counter configuration data. Range is 131–510.						
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking						
Usage Guidelines	Follow standard CLI procedures for this command.						
Examples	<p>The following example shows that the counter configuration data for LCN 136 is displayed:</p> <pre>dspconcnt 136 ChanNum: 136 Chan State: alarm Chan XMT ATM State: Sending AIS OAM Chan RCV ATM State: Receiving AIS OAM Chan Status Bit Map: 0x6 OAM Lpb Lost Cells: 75599 AAL2 HEC Errors: 0 AAL2 CRC Errors: 0 AAL2 Invalid OSF Cells: 0 AAL2 Invalid Parity Cells: 0 AAL2 CPS Packet Xmt: 0 AAL2 CPS Packet Rcv: 0 AAL2 Invalid CID CPS: 0 AAL2 Invalid UUI CPS: 0 AAL2 Invalid Len. CPS: 0 AAL5 Invalid CPI: 0 AAL5 oversized SDU PDU: 0 AAL5 Invalid Len. PDU: 0 AAL5 PDU CRC32 Errors: 0</pre>						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>addcon</td> <td>Adds a PVC connection between a VISM card and any SM or PXM card.</td> </tr> <tr> <td>delcon</td> <td>Deletes a connection (PVC) between a VISM card and a Cisco MGX 8000 Series platform PXM card.</td> </tr> </tbody> </table>	Command	Description	addcon	Adds a PVC connection between a VISM card and any SM or PXM card.	delcon	Deletes a connection (PVC) between a VISM card and a Cisco MGX 8000 Series platform PXM card.
Command	Description						
addcon	Adds a PVC connection between a VISM card and any SM or PXM card.						
delcon	Deletes a connection (PVC) between a VISM card and a Cisco MGX 8000 Series platform PXM card.						

dspconferences

To display the currently active three-way conferences, use the **dspconferences** command.

dspconferences

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that three-way conferences are not supported on the VISM/VISM-PR card.

```
dspconferences
xGCP Endpoint Name  xGCP Connection ID  xGCP Connection ID
-----
```

Related Commands

Command	Description
cnfmaxconfnum	Configures the card for three-way conferences.
dspmaxconfnum	Displays the number of three-way conferences

dspcons

To display channel configuration data for all configured connections on a VISM card, use the **dspcons** command.

dspcons

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that channel configuration data for all connections on the current VISM card are displayed:

```
dspcons
```

```
ConnId      ChanNum  Status  Preference  Protection      Active      Locking
-----
datamvr2.5.1.0.135  135    Add     1           unprotected    unknown    unlock
datamvr2.5.1.0.136  136    Add     1           unprotected    unknown    unlock
```

```
ChanNumNextAvailable: 137
```

Related Commands

Command	Description
addcon	Adds a PVC connection between a VISM card and any SM or PXM card.
cnfcon	Configures a connection between a VISM card and a Cisco MGX 8000 Series platform PXM card.
dspcon	Displays the parameters for a specified channel.

dspconvbdpol

To display fax/modem upspeed, connection admission control (CAC) failure, and fax/modem carrier loss policies for calls added to a particular IP or AAL2 logical channel number (LCN), use the **dspconvbdpol** command.

dspconvbdpol <LCN>

Syntax Description

<i>LCN</i>	Logical channel number for which to display voiceband data. Range is 131–510.
------------	---

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the voiceband data policies for LCN 131 are displayed:

```
dspconvbdpol 131
```

```
LCnNumer:          131
ChanCarrierLossPolicy: upspeedCodec
ChanCacRejectionPolicy: delete
```

Related Commands

Command	Description
cnfconvbdpol	Configures the policies for fax/modem upspeed CAC failure and fax/modem carrier loss for calls added to a particular IP or AAL2 LCN.

dspdiags

To display the results of a diagnostic test, use the **dspdiags** command.

dspdiags

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that diagnostics are not performed.

```
dspdiags
-----
DIAGNOSTICS RESULTS
-----

***Diagnostics not performed***
```

Related Commands There are not related commands.

dspdisctimers

To display the Restart in Progress command disconnect type method wait delay times, use the **dspdisctimers** command.

dspdisctimers

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the Restart in Progress command disconnect type method wait delay times are displayed:

```
dspdisctimers

Initial Waiting Delay: 15secs
Min Waiting Delay:    15 secs
Max Waiting Delay:    600 secs
```

Related Commands	Command	Description
	addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
	cnfdistimers	Specifies the wait delay times for the disconnected procedure, restart in progress command—initial, minimum, and maximum timer values.
	cnfmgcgrpprotocol	Configures call agent group protocol data.
	cnfxgcppeer	Configures the UDP port number used to send gateway-initiated messages to the call agent.
	delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.

dspdnallips

To display all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card, use the **dspdnallips** command.

dspdnallips

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card are displayed:

```
dspdnallips
```

ResolutionIndex	DomainName	IP	Preference
2	callagent99	nnn.nnn.nnn.nnx	1
45	callagent99	nnn.nnn.nnn.nxn	3
70	callagent99	nnn.nnn.nnn.xnn	4
1	dns	nnn.nnn.nnx.nnn	1

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
addnip	Adds the IP addresses for a domain name that you added by using the adddn command.
cnfdn	Configures the resolution type of a specified domain name.
cnfdnssrvr	Designates a domain name as a DNS.
deldn	Deletes a domain name.
deldnip	Deletes a statistically provisioned IP address of a domain name.
dspdnips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dspdns	Displays the configuration data of all domain names of a call agent.
dspdnssrvr	Displays the domain name of the configured DNS of the current VISM card.

dspdnips

To display all statistically provisioned and externally resolved IP addresses configured for a specified domain name, use the **dspdnips** command.

```
dspdnips <domain_name>
```

Syntax Description

domain_name Call agent name. Range is a text string of 1–64 alphanumeric characters.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that all statistically provisioned and externally resolved IP addresses configured for domain name callagent99 are displayed:

```
dspdnips callagent99
```

ResolutionIndex	DomainName	IP	Preference
2	callagent99	nnn.nnn.nnn.nnx	1
45	callagent99	nnn.nnn.nnn.nxn	3
70	callagent99	nnn.nnn.nnn.xnn	4

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
adddnip	Adds the IP addresses for a domain name that you added by using the adddn command.
cnfdn	Configures the resolution type of a specified domain name.
cnfdnssrvr	Designates a domain name as a DNS.
deldn	Deletes a domain name.
deldnip	Deletes a statistically provisioned IP address of a domain name.
dspdnallips	Displays all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card.
dspdns	Displays the configuration data of all domain names of a call agent.
dspdnssrvr	Displays the domain name of the configured DNS of the current VISM card.

dspdns

To display the configuration data of all domain names of a call agent, use the **dspdns** command.

dspdns

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the configuration data of the mgc1 domain name are displayed:

```
dspdns
```

DomainNumber	DomainName	IP	State	Preference	Resolution Type
1	mgc1	nn.nn.nn.nn	Active	1	internal only

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
adddnip	Adds the IP addresses for a domain name that you added by using the adddn command.
cnfdn	Configures the resolution type of a specified domain name.
cnfdnssrvr	Designates a domain name as a DNS.
deldn	Deletes a domain name.
deldnip	Deletes a statistically provisioned IP address of a domain name.
dspdnallips	Displays all statistically provisioned IP addresses and externally resolved IP addressees for all domain names configured on the current VISM card.
dspdnips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dspdnssrvr	Displays the domain name of the configured DNS of the current VISM card.

dspdnssrvr

To display the domain name of the configured domain name server (DNS) of the current VISM card, use the **dspdnssrvr** command.

dspdnssrvr

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configured DNS of the current VISM card is callagent99:

```
dspdnssrvr
```

```
External DNS Server Domain Name: callagent99
```

Related Commands

Command	Description
adddn	Adds a domain name (call agent name) and optionally configures the resolution type of the domain name.
adddnip	Adds the IP addresses for a domain name that you added by using the adddn command.
cnfdn	Configures the resolution type of a specified domain name.
cnfdnssrvr	Designates a domain name as a DNS.
deldn	Deletes a domain name.
deldnip	Deletes a statistically provisioned IP address of a domain name.
dspdnallips	Displays all statistically provisioned IP addresses and externally resolved IP addresses for all domain names configured on the current VISM card.
dspdnips	Displays all statistically provisioned and externally resolved IP addresses configured for a specified domain name.
dspdns	Displays the configuration data of all domain names of a call agent.

dspds0execdiag

To verify that testing is enabled on a channel, use the **dspds0execdiag** command.

```
dspds0execdiag <line_number> <ds0_number>
```

Syntax Description

<i>line_number</i>	Line number. Range is 1–8.
<i>ds0_number</i>	DS0 number. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the DSP exec status of DS0 1 on line 1:

```
dspds0execdiag 1 1
```

```
LineNo/Ds0No      DSP Exec Status
-----
      1/ 1          Enable
```

Related Commands

Command	Description
cnfds0execdiag	Configures testing on an individual endpoint.

dspds0gain

To display the adjustable gain values for a specified DS0, use the **dspds0gain** command.

dspds0gain <line_number> <ds0_number>

Syntax Description	
<i>line_number</i>	Line number of the DS0 for which you want to display the adjustable gain. Range is 1–8.
<i>ds0_number</i>	DS0 number on which to display adjustable gain. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the adjustable gain values for DS0 1 are displayed:

```
dspds0gain 2 1

Line Number      : 2
Ds0 Number       : 1
InputGain        : 0
Output Attenuation: 60
```

Related Commands	Command	Description
	cnfds0gain	Configures the adjustable gain for a specified DS0.
	cnfgain	Configures the adjustable gain for a VISM card.
	cnflngain	Configures the adjustable gain for all DS0s on a specified VISM card line.
	dspgain	Displays the adjustable gain for a specified VISM card.
	dsplngain	Displays the adjustable gain for a specified VISM card line.

dspds0localcasstatus

To display the currently configured local channel associated signaling (CAS) status for a specified line and DS0, use the **dspds0localcasstatus** command.

dspds0localcasstatus <line_number> <ds0_number>

Syntax Description

<i>line_number</i>	Line number of the channel for which you want to display the currently local CAS status. Range is 1–8.
<i>ds0_number</i>	DS0 number of the channel for which you want to display the currently local CAS status. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the currently configured local CAS status for line number 1, DS0 number 1 is displayed:

```
dspds0localcasstatus 1 1

ds1 line number:           1
ds0 number:                1
ds0 If Index:             1
local cas type:            Disabled
local cas 4 bit bit pattern: 0
```

Related Commands

Command	Description
cnfds0localcas	Configures a local CAS 4-bit pattern for a T1 line and DS0.

dspds0loop

To display the loopback type for a specified line and DS0, use the **dspds0loop** command.

```
dspds0loop <line_number> <ds0_number>
```

Syntax Description	<i>line_number</i>	Line number of the channel for which you want to display the loopback type. Range is 1–8.
	<i>ds0_number</i>	DS0 number of the channel for which you want to display the loopback type. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the loopback type for line number 1, DS0 number 1 is displayed:

```
dspds0loop 1 1

ds1 line number:          1
ds0 number:              1
ds0 If Index:            1
loopback value:          noLoop
```

Related Commands There are no related commands.

dspds0musicthreshold

To display the music on-hold threshold value for a specified DS0, use the **dspds0musicthreshold** command.

```
dspds0musicthreshold <line_number> <ds0_number>
```

Syntax Description

<i>line_number</i>	Line number of the channel for which you want to display the DS0 music on-hold threshold value. Range is 1–8.
<i>ds0_number</i>	DS0 number for which you want to display the music on-hold threshold value. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the VISM card line number 1, DS0 number 1 displays the –50 dB music on-hold threshold configuration value:

```
dspds0musicthreshold 1 1
```

```
Line Number   : 1
Ds0 Number    : 1
MusicThreshold: -50
```

Related Commands

Command	Description
cnfds0musicthreshold	Configures the music on-hold threshold for a specified DS0.
cnflnmusicthreshold	Configures the music on-hold threshold for all DS0s on a specified line.
cnfmusicthreshold	Configures the music on-hold threshold value for the current VISM card.
dsplnmusicthreshold	Displays the music on-hold threshold values for the DS0s on a specified line.
dspmusicthreshold	Displays the music on-hold threshold values for the current VISM card.

dspds0sidpacket

To show whether or not the silence indication detection (SID) packet is enabled on a DS0, use the **dspds0sidpacket** command.

dspds0sidpacket *<line_number>* *<ds0_number>*

Syntax Description

<i>line_number</i>	Line number. Range is 1–8.
<i>ds0_number</i>	DS0 number. <ul style="list-style-type: none"> 1–24 = T1 lines 1–31 = E1 lines

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the SID packet is enabled on DS0 1 of line 1.

```
dspds0sidpacket 1 1
```

```
LineNo/Ds0No      Sid Packet
-----
          1/ 1      Enable
```

Related Commands

Command	Description
cnfds0sidpacket	Configures the generation of the SID packet.

dspdualtonedet

To display dual tone configurations you added with the **adddualtonedet** command, use the **dspdualtonedet** command.

```
dspdualtonedet <tone_det_num>
```

Syntax Description

<i>tone_det_num</i>	Dual tone ID. Range is 1–10.
---------------------	------------------------------

Command Modes

VoIP switching/VoIP trunking

Usage Guidelines

Follow standard CLI procedures for this command.



Note

This command is only applicable to the VISM-PR card.

Examples

The following example shows the default dual frequency tone configuration values for the ringback tones.

```
dspdualtonedet 1
```

```
Tone Index:           1
Event Number:        70
Freq1:               460 Hz
Freq2:               0 Hz
OnCadence:           2000 ms
OffCadence:          4000 ms
CadenceMatch:        1
FreqMaxDeviation:    30 Hz
ToneMaxPower:        -3 dB
ToneMinPwr:          -35 dB
TonePwrTwist:         10
FreqMaxDelay:        100 ms
MinOnCadence:        200 ms
axOffCadence:        4500 ms
```

For more information on the dual tones default values, see [“Default Values” section on page 1-16 of Chapter 1, “New Features in Release 3.2.”](#)

Related Commands

Command	Description
adddualtonedet	Adds a dual frequency tone.
deldualtonedet	Deletes a dual frequency tone.

dspdynamicpayload

To display the card level configuration of dynamic payload on the current VISM card, use the **dspdynamicpayload** command.

dspdynamicpayload

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example displays the dynamic payload feature configuration of the current VISM card:

```

dspdynamicpayload
Dynamic Payload flag: disable

```

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.
cnfvbdcodesc	Configures the VBD upspeed codec.
dsprtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dspsvbdcodesc	Displays the upspeed codec used for VBD.

dsendpt

To display configuration data of a specified VISM card endpoint, use the **dsendpt** command.

dsendpt <endpt_num>

Syntax Description

<i>endpt_num</i>	<p>Endpoint number. Ranges are</p> <ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248
------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data of endpoint number 120 is displayed:

```
dsendpt 120
```

```

EndptNum:          120
EndptLineNum:      1
EndptName:         T1-1/1@cisco.com
EndptSpeed:        64 kbps
EndptState:        active
EndptChannelMap:   1
EndptEnable:       active
EndptLoopback:     disabled

```

**Note**

The EndptChannelMap value is represented by a hexadecimal number, where each DS0 is a power of 2— $\text{EndptChannelMap} = 2^{\text{DS0 number}}$.

Related Commands

Command	Description
addendpt	Adds an endpoint on a VISM card.
delendpt	Deletes a specified endpoint on a VISM card.
dsendpts	Displays information about all endpoints on a VISM card.

dsendptdndsend

To display the audit endpoint response naming format and maximum datagram size, use the **dsendptdndsend** command.

dsendptdndsend

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the response and maximum datagram size you configured using the **cnfendptdndsend** command.

```
dsendptdndsend

Endpt Domain Send : enable
Datagram Size    : 4095
```

Related Commands	Command	Description
	cnfendptdndsend	Configures the audit endpoint response to include the endpoint domain name and sets the maximum datagram size.

dsendpts

To display configuration data about all endpoints on a VISM card, use the **dsendpts** command.

dsendpts

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data for all endpoints on the current VISM card are displayed:

```
dsendpts
```

```

EndptNum  Ena/Speed
-----  -
1          act/ 64k
2          act/ 64k
3          act/ 64k

```

Related Commands

Command	Description
addendpt	Adds an endpoint on a VISM card.
addendpts	Adds multiple consecutive numbers of endpoints to a VISM card.
delendpt	Deletes a specified endpoint on a VISM card.
dsendpt	Displays configuration data about a VISM card endpoint.

dspexecdiag

To show the testing status on all of the channel levels, use the **dspexecdiag** command.

dspexecdiag

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the testing status of all channel levels.

```
dspexecdiag

LineNo/Ds0No      DSP Exec Status
-----
1/ 1              Enable
1/ 2              Enable
1/ 3              Enable
1/ 4              Enable
1/ 5              Enable
1/ 6              Enable
1/ 7              Enable
1/ 8              Enable
1/ 9              Enable
1/10             Enable
1/11             Enable
1/12             Enable
1/13             Enable
1/14             Enable
1/15             Enable
1/16             Enable
1/17             Enable
1/18             Enable
1/19             Enable
1/20             Enable
1/21             Enable
1/22             Enable
1/23             Enable
1/24             Enable
INFO: line ds1 '2' is not enabled
INFO: line ds1 '3' is not enabled
INFO: line ds1 '4' is not enabled
INFO: line ds1 '5' is not enabled
INFO: line ds1 '6' is not enabled
INFO: line ds1 '7' is not enabled
INFO: line ds1 '8' is not enabled
```

Related Commands

Command	Description
cnfexecdiag	Configures all channel level testing.

dspfaxmodemtrace

To show whether or not fax/modem trace is on, use the **dspexecdiag** command.

dspfaxmodemtrace

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the fax/modem trace is disabled.

```
dspfaxmodemtrace
Fax/Modem Trace is OFF...
```

Related Commands

Command	Description
setfaxmodemtrace	Turns fax/modem trace on or off.

dspgain

To display the adjustable gain for a specified VISM card, use the **dspgain** command.

dspgain

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the adjustable gain values for the current VISM card are displayed:

```
dspgain
```

```
LineNo/Ds0No  InputGain  OutputAttenuation
-----
1/1           0          100
1/2           10         60
```

Related Commands

Command	Description
cnfds0gain	Configures the adjustable gain for a specified DS0.
cnfgain	Configures the adjustable gain for a VISM card.
cnflngain	Configures the adjustable gain for all DS0s on a specified VISM card line.
dsps0gain	Displays the adjustable gain values for a specified DS0.
dsplngain	Displays the adjustable gain for a specified VISM card line.

dspgwstate

To display the current user-configured service state of the gateway, use the **dspgwstate** command.

dspgwstate

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines The following possible states are displayed by this command:

- Admin States:
 - In service
 - Command out of service
 - Pending out of service
- Operational States:
 - Alarm
 - OK

Examples The following example shows that the user-configured gateway service states—the command out of service administration state and the alarm operational state—are displayed:

```
dspgwstate

Admin State : Command_Out_Of_Service
Oper. State : Alarm
```

Related Commands There are no related commands.

dspheartbeattimer

To display the heartbeat status of the VISM card, **dspheartbeattimer** command.

dspheartbeattimer

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP Trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the heartbeat timer value.

```
dspheartbeattimer
DSP Heartbeat timer value: 0
```

Related Commands	Command	Description
	cnfdspheartbeattimer	Configures the DSP to send a heartbeat message within a given period of time.

dsplapd

To display configuration data about a Link Access Protocol D channel (LAPD), use the **dsplapd** command.

```
dsplapd <line_number> <ds0_number>
```

Syntax Description

<i>line_number</i>	Line number of the channel for which you want to display the LAPD configuration data. Range is 1–8.
<i>ds0_number</i>	DS0 number of the channel for which you want to display the LAPD configuration data. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the LAPD configuration data is displayed for line number 1, DS0 number 1:

```
dsplapd 1 1

vismRudpSessionStatNum:      1
vismRudpSessionAutoResets:   0
vismRudpSessionRcvdAutoResets: 0
vismRudpSessionRcvdInSeqs:   0
vismRudpSessionRcvdOutSeqs:  0
vismRudpSessionSentPackets:  5
vismRudpSessionRcvdPackets:  0
vismRudpSessionSentBytes:    0
vismRudpSessionRcvdBytes:    0
vismRudpSessionDataSentPkts: 0
vismRudpSessionDataRcvdPkts: 0
vismRudpSessionDiscardPkts:  0
Trunk type:                   Backhaul
```

Related Commands

Command	Description
addlapd	Adds an LAPD.
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.

Command	Description
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapd	Deletes an LAPD.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapds	Displays configuration data about all LAPDs.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsprtptent	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsprtptcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprtptcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsprudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

dsplapds

To display configuration data about all Link Access Protocol for ISDN D channels (LAPDs), use the **dsplapds** command.

dsplapds

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the configuration data for all LAPDs is displayed:

```
dsplapds
```

```
Line number   DS0 number   Lapd Application Type
-----
           1           1           PRI
```

Related Commands

Command	Description
addlapd	Adds an LAPD.
dellapd	Deletes an LAPD.
dsplapd	Displays configuration data about an LAPD.

dsplapdstat

To display configuration data about Link Access Protocol for ISDN D channel (LAPD) statistics (counters) for a specific line and DS0, use the **dsplapdstat** command.

dsplapdstat <line_number> <ds0_number>

Syntax Description	<i>line_number</i>	Line number of the channel for which you want to display the LAPD statistics. Range is 1–8.
	<i>ds0_number</i>	DS0 number of the channel for which you want to display the LAPD statistics. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines

Command Modes VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the LAPD statistic configuration data for line number 1, DS0 number 1 are displayed:

```
dsplapdstat 1 1

vismLapdStatsIndex:          1
vismLapdRxInfoFrames:        0
vismLapdTxFrames:            0
vismLapdRxReadyFrames:       0
vismLapdTxFrames:            0
vismLapdRxNotReadyFrames:    0
vismLapdTxFrames:            0
vismLapdRxSABMFrames:        0
vismLapdTxFrames:            0
vismLapdRxDisconFrames:      0
vismLapdTxFrames:            0
vismLapdRxUAFrames:          0
vismLapdTxFrames:            0
vismLapdRxDiscModeFrames:    0
vismLapdTxFrames:            0
vismLapdRxFrmRejectFrames:   0
vismLapdTxFrames:            0
vismLapdRxExchIdFrames:      0
vismLapdTxFrames:            0
vismLapdRxUnumInfoFrames:    0
vismLapdTxFrames:            0
vismLapdRxRejectFrames:      0
vismLapdTxFrames:            0
vismLapdRxInvalidFrames:     0
```

Related Commands There are no related commands.

dsplapdtrunkpvc

To display the assigned permanent virtual circuit (PVC) trunk type that carries Link Access Protocol D channel (LAPD) trunk messages for the current VISM card, use the **dsplapdtrunkpvc** command.

dsplapdtrunkpvc

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the control PVC trunk type carries LAPD trunk messages for the current VISM card:

```
dsplapdtrunkpvc
Lapd Trunk PVC Carrier: Control
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudp trunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clr rtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudp trunk rmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
del rtpcon	Deletes a static RTP VoIP trunking connection.
del rudp trunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapd trunks	Displays the configuration data of all LAPD trunks.
dsprtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsprtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprtpcons	Displays the configuration data of all static RTP VoIP trunking connections.

Command	Description
dsprudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

dsplapdtrunks

To display the data of all Link Access Protocol D channel (LAPD) configured trunks, use the **dsplapdtrunks** command.

dsplapdtrunks

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that all LAPD configuration data of the current VISM card trunks are displayed:

```
dsplapdtrunks

Trunk Num State Session Number
-----
      1      Oos           1
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsprtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.

Command	Description
dsprtpcn	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprtpcns	Displays the configuration data of all static RTP VoIP trunking connections.
dsprudp trunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsprudp trunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

dslinecasbits

To display the currently transmitted and received channel associated signaling (CAS) bit values for all the endpoints on a VISM card line, use the **dslinecasbits** command.

```
dslinecasbits <line_number>
```

Syntax Description

line_number Line number for which you want to display the CAS bit values. Range is 1–8.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the currently transmitted and received CAS bits of line number 1 are displayed:

```
dslinecasbits 1

DS0      Tx to TDM   Rx fr TDM
-----A-B-C-D-----A-B-C-D
 1       0 0 0 0    0 0 0 0
 2       0 0 0 0    0 0 0 0
 3       0 0 0 0    0 0 0 0
 4       0 0 0 0    0 0 0 0
 5       0 0 0 0    0 0 0 0
 6       0 0 0 0    0 0 0 0
 7       0 0 0 0    0 0 0 0
 8       0 0 0 0    0 0 0 0
 9       0 0 0 0    0 0 0 0
10       0 0 0 0    0 0 0 0
11       0 0 0 0    0 0 0 0
12       0 0 0 0    0 0 0 0
13       0 0 0 0    0 0 0 0
14       0 0 0 0    0 0 0 0
15       0 0 0 0    0 0 0 0
16       0 0 0 0    0 0 0 0
17       0 0 0 0    0 0 0 0
18       0 0 0 0    0 0 0 0
19       0 0 0 0    0 0 0 0
20       0 0 0 0    0 0 0 0
21       0 0 0 0    0 0 0 0
22       0 0 0 0    0 0 0 0
23       0 0 0 0    0 0 0 0
24       0 0 0 0    0 0 0 0
```

Related Commands

Command	Description
addendpt	Adds an endpoint on a VISM card.
addendpts	Adds a consecutive number of endpoints to a VISM card.
addln	Adds a T1 or E1 line to a VISM card.
cnfcasendpt	Associates an endpoint with a CAS variant.
cnflnsig	Configures the signaling mode for a VISM card line.

dsplinesabyte

To display the transmit and receive SA buffers, use the **dsplinesabyte** command.

The SA-byte is used to insert SA-bits (bits SA4–SA8) into a timeslot. The SA-bits are additional spare bits that can be used for synchronization.

dsplinesabyte <line_number>

Syntax Description

line_number Line number in the range from 1 to 8.

Command Modes

VoIP Switching/VoIP Trunking, AAL2 Trunking, AAL1 Switching, Switched AAL2 SVC, Switched AAL2 PVC, VoIP and AAL1 SVC, VoIP Trunking/AAL2 Trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the SA bytes of line number 1:

```
cvngmgx1a.1.20.VISM8.a > dsplinesabyte 1
```

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

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

Related Commands

Command	Description
cnflinesabyte	Configures SA bytes on a line.

dspIn

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

dspIn *<line_number>*

Syntax Description

line_number Line number 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, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data for the current VISM card's line number 1 is displayed:

```
dspIn 1

LineNum:                1
LineConnectorType:      RJ-48
LineEnable:              Enabled
LineType:                dsx1ESF
LineCoding:              dsx1B8ZS
LineLength:              0-131 ft
LineXmtClockSource:     LocalTiming
LineLoopbackCommand:    NoLoop
LineSendCode:           NoCode
LineUsedTimeslotsBitMap: 0x3ff
LineLoopbackCodeDetection: codeDetectDisabled
LineSignalingType:      CAS
LineCcsChannels:        0x0
LineTrunkConditioning:  disable
LineNumOfValidEntries:  8
```



Note

The LineCcsChannels data applies only to the AAL2 trunking operating mode.

Related Commands

Command	Description
addIn	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.

dsplncids

To display the channel identification (CID), endpoint, and AAL2 configuration data for a VISM card line, use the **dsplncids** command.

```
dsplncids <line_number>
```

Syntax Description

<i>line_number</i>	Line number for which you want to display the CID, endpoint, and AAL2 configuration data. Range is 1–8.
--------------------	---

Command Modes

AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the CID, endpoint, and AAL2 configuration data for line 2 are displayed:

```
dsplncids 2

lcn CID Endpt  Cid  Type3      VAD      Prof  Prof  Codec  Cas  DTMF
Num Num  Num  Status Redun VAD Timer  Type  Num  Type  Tran Tran Ecan
-----
33  10   2  active  ena  ena   250   ITU   1   G.711u  ena  ena  ena
```



Note

If you configure the codec type as clear for the line number identified by the *line_number* argument, the Type3 Redun, Cas Tran, DTMF Tran, and Ecan values are not applicable.

Related Commands

Command	Description
addcid	Adds an AAL2 CID on a VISM card.

dsplndigitorder

To display the order in which automatic number identification (ANI) digits—the caller's number—and dialed number identification service (DNIS) digits—the called number—are dialed during an outgoing Feature Group D (FGD) call on the endpoints of a specified VISM card line, use the **dsplndigitorder** command.

dsplndigitorder <line_number>

Syntax Description

<i>line_number</i>	Line number for which to configure dialed digit order. Range is 1–8.
--------------------	--

Command Modes

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

Usage Guidelines

The ANI and DNIS digits are sent as part of the MGCP setup message.

Examples

The following example shows that the current VISM card's line number 7 is assigned a digit order of DNIS digits first, followed by ANI digits, for digits dialed during an outgoing FGD call:

```
dsplndigitorder 7

LineNum          : 1
Dsx1TxDigitOrder: aniThenDnis
```

Related Commands

Command	Description
cnfcasflashtime	Configures the minimum and maximum CAS on-hook time periods for incoming flash hooks on a specified endpoint.
cnfcasglareattrib	Configures the direction of CAS calls and the glare policy for a specified endpoint.
cnfcaspackage	Configures MGCP packages to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
cnflndigitorder	Assigns the order in which ANI digits and DNIS digits are dialed during an outgoing FGD call on the endpoints of a specified VISM card line.
delxgcppersistvt	Deletes a persistent xGCP event.
dspcasglareattrib	Displays the direction of CAS calls and the glare policy for a specified endpoint.
dspcaspackage	Displays the MGCP packages configured to notify persistent observed CAS events in the context of incoming and outgoing CAS calls on a specified endpoint.
dspcastimers	Displays the currently configured CAS timers for a specified endpoint.

dsplndsp

To display the digital signal processor (DSP) data for a specified T1 or E1 line, use the **dsplndsp** command.

```
dsplndsp <line_num>
```

Syntax Description

<i>line_num</i>	Line number for which you want to display the DSP 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, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the DSP data for line 1 are displayed:

```
dsplndsp 1

VismLineNum:          1
ECANEnable:           enable
ECANReenable:         ReenableOnModemData
ToneDisable:          G.165
MaximumTail:          32 milliseconds
ResidualEcho:         ComfortNoise
VoiceDetection:       Enable
```



Note

VAD and ECAN apply to the VoIP switching/trunking operating mode only.

Related Commands

Command	Description
addln	Adds a T1 or E1 line to a VISM card.
delln	Deletes a T1 or E1 line from a VISM card.

dspInDsx0s

To display the configuration data of all DS0s on a specified T1 or E1 line, use the **dspInDsx0s** command.

dspInDsx0s <line_number>

Syntax Description

line_number Line number for which you want to display all DS0 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, VoIP trunking/AAL2 trunking

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that all DS0 configuration data for line 1 are displayed:

```
dspInDsx0s 1
```

ds0 Index	If	Robbed Bit Signaling	Idle Code	Seized Code	EndPt Num	If Type	Variant Name
1		True	0	0	1	bearer	
2		True	0	0	2	bearer	
3		True	0	0	3	bearer	
4		True	0	0	4	bearer	
5		True	0	0	5	bearer	
6		False	0	0	-1	-	
7		False	0	0	-1	-	
8		False	0	0	-1	-	
9		False	0	0	-1	-	
10		False	0	0	-1	-	
11		False	0	0	-1	-	
12		False	0	0	-1	-	
13		False	0	0	-1	-	
14		False	0	0	-1	-	
15		False	0	0	-1	-	
16		False	0	0	-1	-	
17		False	0	0	-1	-	
18		False	0	0	-1	-	
19		False	0	0	-1	-	
20		False	0	0	-1	-	
21		False	0	0	-1	-	
22		False	0	0	-1	-	
23		False	0	0	-1	-	
24		False	0	0	-1	-	



Note

Idle code, seized code and variant name apply to the VoIP switching/trunking operating mode only.

Related Commands

Command	Description
addln	Adds a T1 or E1 line to a VISM card.
delln	Deletes a T1 or E1 line from a VISM card.

dsplnendptstatus

To display the status of endpoints for a specified T1 or E1 line, use the **dsplnendptstatus** command.

dsplnendptstatus *<line_number>*

Syntax Description

line_number Line number for which you want to display the status of endpoints. Range is 1–8.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the status for the endpoints on line 1 are displayed:

```
dsplnendptstatus 1

ds0# Endpt#  Codec  VAD  ECAN
-----
1          1      G.711a  ON  ON
```

Related Commands

Command	Description
dspendpts	Displays information about all the endpoints on a VISM card.
dspln	Displays the characteristics of a VISM card line.

dsplnexecdiag

To verify that all of the endpoints on the line are enabled for channel level testing, use the **dsplnexecdiag** command.

dsplnexecdiag <line_number>

Syntax Description

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

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the channel level testing is enabled for all of the endpoints on line 1.

```
dsplnexecdiag 1
```

LineNo/Ds0No	DSP Exec Status
1/ 1	Enable
1/ 2	Enable
1/ 3	Enable
1/ 4	Enable
1/ 5	Enable
1/ 6	Enable
1/ 7	Enable
1/ 8	Enable
1/ 9	Enable
1/10	Enable
1/11	Enable
1/12	Enable
1/13	Enable
1/14	Enable
1/15	Enable
1/16	Enable
1/17	Enable
1/18	Enable
1/19	Enable
1/20	Enable
1/21	Enable
1/22	Enable
1/23	Enable
1/24	Enable

Related Commands

Command	Description
cnflnexecdiag	Configures channel level testing on an individual line

dsplngain

To display the adjustable gain for all DS0s on a specified VISM card line, use the **dsplngain** command.

dsplngain <line_number>

Syntax Description

line_number Line number for which you want to display the adjustable gain for all DS0s. Range is 1–8.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the adjustable gain values for all DS0s on VISM card line 3 are displayed:

```
dsplngain 3
```

```
Ds0Num   InputGain   OutputAttenuation
-----
1         0           100
2         10          60
```

Related Commands

Command	Description
cnflngain	Configures the adjustable gain for all DS0s on a specified VISM card line.

dsplnmusicthreshold

To display the music on-hold threshold values for the DS0s on a specified line, use the **dsplnmusicthreshold** command.

dsplnmusicthreshold <line_number>

Syntax Description

<i>line_number</i>	Line number for which you want to display the DS0 music on-hold threshold values. It can be in the range from 1 to 8.
--------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the DS0s on VISM card line number 3 music on-hold threshold values are displayed:

```
dsplnmusicthreshold 3

Ds0Num  Musicthreshold
-----  -
1       -38
2       -40
```

Related Commands

Command	Description
cnfds0musicthreshold	Configures the music on-hold threshold for a specified DS0.
cnflnmusicthreshold	Configures the music on-hold threshold for all DS0s on a specified line.
cnfmusicthreshold	Configures the music on-hold threshold value for the current VISM card.
dspds0musicthreshold	Displays the music on-hold threshold value for a specified DS0.
dspmusicthreshold	Displays the music on-hold threshold values for the current VISM card.

dsplnringback

To display the ringback tone method for a specified line on the current VISM card, use the **dsplnringback** command.

```
dsplnringback <line_number>
```

Syntax Description

<i>line_number</i>	Line number for which you want to display the ringback method. Range is 1–8.
--------------------	--

Command Modes

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

Usage Guidelines

The ringback tone method is displayed as one of the following:

- Proxy—VISM sends the appropriate packet (NSE, NTE, or AAL2 type 3) for the ringback tone to the originating VISM which generates the ringback tone toward the TDM network.
- Inband—VISM generates the inband ringback tone toward the originating VISM over the packet network and the originating VISM plays the ringback tone.

Examples

The following example shows that the current VISM card line 4 ringback tone method, inband, is displayed:

```
dsplnringback 4

LineNum: 4
DsxlRemoteRingback: inband
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.

Command	Description
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

dsplns

To display all line configuration data for the current VISM card, use the **dsplns** command.

dsplns

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data for all lines on the current VISM card are displayed:

```
dsplns
```

Line	Conn Type	Type	Status/Coding	Length	XmtClock Source	Alarm	Stats Alarm
17.1	RJ-48	dsx1ESF	Ena/dsx1B8ZS	0-131 ft	LocalTim	Yes	No
17.2	RJ-48	dsx1ESF	Ena/dsx1B8ZS	0-131 ft	LocalTim	Yes	No
17.3	RJ-48	dsx1ESF	Dis/dsx1B8ZS	0-131 ft	LocalTim		
17.4	RJ-48	dsx1ESF	Dis/dsx1B8ZS	0-131 ft	LocalTim		
17.5	RJ-48	dsx1ESF	Dis/dsx1B8ZS	0-131 ft	LocalTim		
17.6	RJ-48	dsx1ESF	Dis/dsx1B8ZS	0-131 ft	LocalTim		
17.7	RJ-48	dsx1ESF	Ena/dsx1B8ZS	0-131 ft	LocalTim	No	No
17.8	RJ-48	dsx1ESF	Ena/dsx1B8ZS	0-131 ft	LocalTim	No	No

```
LineNumOfValidEntries: 8
```

Related Commands

Command	Description
addln	Adds a T1 or E1 line to a VISM card.
cnfln	Configures line characteristics for a specified line.
delln	Deletes a DS1 line from a VISM card.
dspln	Displays the characteristics of a specified line.

dsplnsidpacket

To display the line and DS0 in which the silence indication detection (SID) packet is enabled, use the **dsplnsidpacket** command.

dsplnsidpacket <line_number>

Syntax Description

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

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the SID packet is enabled on line 1:

```
dsplnsidpacket 1
```

LineNo/Ds0No	Sid Packet
1/ 1	Enable
1/ 2	Enable
1/ 3	Enable
1/ 4	Enable
1/ 5	Enable
1/ 6	Enable
1/ 7	Enable
1/ 8	Enable
1/ 9	Enable
1/10	Enable
1/11	Enable
1/12	Enable
1/13	Enable
1/14	Enable
1/15	Enable
1/16	Enable
1/17	Enable
1/18	Enable
1/19	Enable
1/20	Enable
1/21	Enable
1/22	Enable
1/23	Enable
1/24	Enable

Related Commands

Command	Description
cnflnsidpacket	Enables or disables the SID packet on the line.

dsplnstate

To display the service state of specified T1 or E1 line with respect to the xGCP protocol, use the **dsplnstate** command.

```
dsplnstate <line_number>
```

Syntax Description

line_number Line number for which you want to display the service state. Range is 1–8.

Command Modes

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

Usage Guidelines

Service states are expressed as administrative or operational. For each service state has an actual state and an effective state. The actual states are described in the following list:

- Actual administrative states:
 - In service
 - Pending out of service
 - Command out of service
 - Inactive
 - Invalid state
- Actual operational states:
 - Alarm
 - OK

The effective administrative state is the combination state of the gateway and the line.

The effective operational state is the combination alarm state of the gateway and the line.

Examples

The following example shows that the service states of line 1 are displayed:

```
dsplnstate 1

Line number : 1, Actual admin. state : Inactive
                Actual oper. state : OK

Line number : 1, Effective admin. state : Inactive
                Effective oper. state : OK
```

Related Commands

Command	Description
dspgwstate	Displays the current user-configured service states of the gateway.

dsplntoneplan

To display the tone plan configuration of a specified VISM card line, use the **dsplntoneplan** command.

dsplntoneplan <line_number>

Syntax Description	<i>line_number</i>	Line number for which you want to display the tone plan configuration. Range is 1–8.
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC	
Usage Guidelines	Follow standard CLI procedures for this command.	
Examples	<p>The following example shows that the tone plan configuration for the current VISM card line number 8 is displayed:</p> <pre>dsplntoneplan 8 LineNum :8 Dsx1TonePlanRegion :singapore Dsx1TonePlanVersion:11</pre>	
Related Commands	Command	Description
	addtoneplan	Adds a tone plan to the current VISM card.
	cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
	cnflntoneplan	Assigns a tone plan to a specified VISM card line.
	cnflntonetimout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
	dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
	deltoneplan	Deletes a previously added tone plan from the current VISM card.
	dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
	dsplntonetimout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
	dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
	dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
	dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.

Command	Description
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

dsplntonettimeout

To display the configured timeout periods for all call progress tones of a specified VISM card line, use the **dsplntonettimeout** command.

dsplntonettimeout *<line_number>*

Syntax Description

<i>line_number</i>	Line number for which you want to display the configured timeout periods (defined in seconds) for all call progress tones. Range is 1–8.
--------------------	--

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that all call progress tones for the current VISM card line number 5 are displayed, in seconds:

```
dsplntonettimeout 5

LineNum:          5
Dsx1RingingTO:    200 seconds
Dsx1RingBackTO:   200 seconds
Dsx1BusyTO:       35 seconds
Dsx1ReorderTO:    35 seconds
Dsx1DialTO:       16 seconds
Dsx1StutterDialTO: 16 seconds
Dsx1OffHookAlertTO: 5 seconds
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonettimeout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.

Command	Description
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

dsplongdurationtimer

To display the long duration timer value, use the **dsplongdurationtimer** command.

The long duration is the elapse time, in hours, to indicate a connection has been established for a given period of time.

dsplongdurationtimer

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the long duration timer value you configured using the **cnflongdurationtimer** command.

```
dsplongdurationtimer
```

```
Long duration timer value: 1
```

Related Commands	Command	Description
	cnflongdurationtimer	Configures the long duration timer value.

dsploops

To display all lines and DS0s that are in the loopback condition, use the **dsploops** command.

dsploops

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the lines and DS0s that are currently in the loopback condition are displayed:

```
dsploops

Line Loopbacks on this card
-----
Line 1: Local Loopback

ds0 loopbacks on this card
-----
Endpoint 1 Loopback Enabled
```

Related Commands

Command	Description
addconloop	Configures a cellbus connection to local loopback condition on a current card.
addendptloop	Places an endpoint in a loopback condition in the TDM direction.

dspmaxconfnum

To display the maximum number of three-way conferences, use the **dspmaxconfnum** command.

dspmaxconfnum

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the VISM/VISM-PR card does not support three-way conferences:

```
dspmaxconfnum
Maximum number of conferences: 0
```

Related Commands	Command	Description
	cnfmaxconfnum	Configures the maximum number of three-way conferences.

dspmaxmgcs

To display the maximum number of Media Gateway Controllers (MGCs) that can be configured on the current card, use the **dspmaxmgcs** command.

dspmaxmgcs

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the maximum number of MGCs that can be configured on the current card is displayed:

```
dspmaxmgcs
```

```
Maximum number of MGCs: 8
```

Related Commands There are no related commands.

dspmgc

To display the configuration data of a specified Media Gateway Control (MGC), use the **dspmgc** command.

dspmgc <*mgcNumber*>

Syntax Description	<i>mgcNumber</i> Number by which the call agent is identified, as displayed by the dspmgcs command. Range is 1–8.								
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC								
Usage Guidelines	Follow standard CLI procedures for this command.								
Examples	<p>The following example shows that the configuration data for the MGC identified by the MGC number 1 is displayed:</p> <pre>dspmgc 1 mgcNumber : 1 mgcName : mgc1</pre>								
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>delmgc</td> <td>Deletes a call agent from a VISM card.</td> </tr> <tr> <td>dspmaxmgcs</td> <td>Displays the maximum number of MGCs that can be configured on the current card.</td> </tr> <tr> <td>dspmgcs</td> <td>Displays the configuration data of all configured call agents.</td> </tr> </tbody> </table>	Command	Description	delmgc	Deletes a call agent from a VISM card.	dspmaxmgcs	Displays the maximum number of MGCs that can be configured on the current card.	dspmgcs	Displays the configuration data of all configured call agents.
Command	Description								
delmgc	Deletes a call agent from a VISM card.								
dspmaxmgcs	Displays the maximum number of MGCs that can be configured on the current card.								
dspmgcs	Displays the configuration data of all configured call agents.								

dspmgcgrpparams

To display all configured Media Gateway Control Protocol (MGCP)—call agent—redundancy group parameters, use the **dspmgcgrpparams** command.

dspmgcgrpparams

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that all configured call agent redundancy group parameters are displayed:

```
dspmgcgrpparams
```

```
Mgc Grp Num   Com State   State Chg Notification   Priority
-----
           1   CommLoss   Enabled                 1
```

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspmgcgrps	Displays all configured call agent redundancy groups.
dspsrcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

dspmgcgrpprotocols

To display all configured Media Gateway Control Protocol (MGCP)—call agent—redundancy group protocols, use the **dspmgcgrpprotocols** command.

dspmgcgrpprotocols

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that all configured call agent redundancy group protocols are displayed:

```
dspmgcgrpprotocols
```

MgcGrp Num	Prot Num	Qrntn Persist	Qrntn Def	Sign OnOff	Prov Resp	RspAck Attr	Disc Proc	Cancel Graceful
1	MGCP 0.1	Qrtn	StepDiscard	DelEvtNotPrsnt	NotSend	NotSend	Disable	NotSend
1	MGCP 1.0	Qrtn	StepProcess	DelNegEvt	Send	Send	Enable	Send

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrps	Displays all configured call agent redundancy groups.
dspsrcppeergpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

dspmgcgrps

To display all configured Media Gateway Control Protocol (MGCP)—call agent—redundancy groups, use the **dspmgcgrps** command.

dspmgcgrps

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that all configured call agent redundancy groups are displayed:

```
dspmgcgrps
mgcRedgrpNum mgcNum Preferencee State
-----
          1          1          1      Inactive
          1          2          2      Inactive
```

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspsrcppeergrpparams	Displays the SRCP parameters for all call agent redundancy groups that have SRCP added.

dspmgcs

To display configuration data about all configured call agents—Media Gateway Control (MGC) protocols—use the **dspmgcs** command.

dspmgcs

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the configuration data about the currently configured call agents is displayed:

```
dspmgcs
mgcNumber   mgcName
-----
1           mgc1
```

Related Commands	Command	Description
	delmgc	Deletes a call agent from a VISM card.
	dspmaxmgcs	Displays the maximum number of MGCs that can be configured on the current card.
	dspmgc	Displays the configuration data of a specified configured call agent.

dspmgprotocols

To display data of all call agent—Media Gateway Control (MGC)—protocols available to VISM, use the **dspmgprotocols** command.

dspmgprotocols

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the call agent protocols available to VISM are displayed:

```
dspmgprotocols
```

Number	mgProcotol
1	MGCP 0.1
2	SGCP 1.1+
3	SRCP 1.0.2
4	SGCP 1.5
5	MGCP 1.0
6	TGCP 1.0

Related Commands	Command	Description
	delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.

dspmidcalltimers

To display the configured partial and critical timer values for midcall dual tone multifrequency (DTMF) digit reporting, use the **dspmidcalltimers** command.

dspmidcalltimers

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the configured partial and critical timers for midcall DTMF digit reporting are displayed:

```
dspmidcalltimers
```

```
LineNum  DTMF Partial Timer  DTMF Critical Timer
-----  -
1         16                   4
2         20                   4
```

Related Commands	Command	Description
	cnfmidcalltimers	Configures the midcall DTMF feature partial and critical timers for a specified VISM card line.

dspmnngcidnt

To display the managed channel identifier (CID) count for a specified endpoint, use the **dspmnngcidnt** command.

dspmnngcidnt *<endpt_num>*

Syntax Description	<i>endpt_num</i>	Endpoint number for which you want to display the managed CID count. Ranges are
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248

Command Modes AAL2 trunking, switched AAL2 PVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples

The following example shows that the managed CID counts for endpoint number 1 are displayed:

```
dspmngcidcnt 1

EndptNum:    1
Lcn:         35
Cid:         10
SentPkts:    15277688
RcvdPkts:    0
SentOctets:  654128294
RcvdOctets:  0
LostPkts:    0
Jitter:      0
Latency:     0
```

Related Commands

There are no related commands.

dspnonecanendpt

To monitor the echo cancellation (ECAN) activity for a specified endpoint, use the **dspnonecanendpt** command.

dspnonecanendpt *<endpt_num>*

Syntax Description	<i>endpt_num</i>	Endpoint number. Ranges are
		<ul style="list-style-type: none"> • For template number 1: <ul style="list-style-type: none"> – For VISM, from 1 to 145 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 2: <ul style="list-style-type: none"> – For VISM T1, from 1 to 192 – For VISM E1, from 1 to 248 • For template number 3: <ul style="list-style-type: none"> – For VISM, from 1 to 120 – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248 • For template number 4: <ul style="list-style-type: none"> – For VISM, from 1 to 64 – For VISM-PR, from 1 to 144 • For template number 5: <ul style="list-style-type: none"> – For VISM-PR T1, from 1 to 192 – For VISM-PR E1, from 1 to 248

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the ECAN additivity for endpoint number 1 is monitored:

```
dspnonecanendpt 1
```

```
Send Energy (dBm) = -45, Receive Energy (dBm) = -45
ERL (dB) = 6, ERLE (dB) = 0
Largest Reflector (ms) is 4
```

■ dspmonecanendpt

Related Commands

Command	Description
cnfendptcadence	Configures cadence (digit tone) times for an endpoint.

dspmusicthreshold

To display the music on-hold threshold values for the current VISM card, use the **dspmusicthreshold** command.

dspmusicthreshold

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the current VISM card music on-hold threshold values are displayed:

```
dspmusicthreshold

LineNo/Ds0No  Musicthreshold
-----
1/1           -38
1/2           -50
```

Related Commands

Command	Description
cnfds0musicthreshold	Configures the music on-hold threshold for a specified DS0.
cnflnmusicthreshold	Configures the music on-hold threshold for all DS0s on a specified line.
cnfmusicthreshold	Configures the music on-hold threshold value for the current VISM card.
dspds0musicthreshold	Displays the music on-hold threshold value for a specified DS0.
dsplnmusicthreshold	Displays the music on-hold threshold values for the DS0s on a specified line.

dspnwcot

To display the status—enabled or disabled—of the gateway-initiated network continuity test configuration for VISM, use the **dspnwcot** command.

dspnwcot

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that VISM is configured for a gateway-initiated network continuity test:

```
dspnwcot
```

```
GW Initiated Network COT: On
```

Related Commands

Command	Description
cnfco4timer	Configures the bearer continuity test CO4 timer value.
cnfnwcot	Configures VISM for a gateway-initiated network continuity test.
dspco4timer	Displays the bearer continuity test CO4 timer value.
dspvismparam	Displays the current VISM card configuration.

dspoamloopcnt

To display the number of OAM loopback cells before an OAM loopback failure causes the PVC to go into alarm, use the **dspoamloopcnt** command.

dspoamloopcnt

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example displays the OAM loopback count you configured using the **cnfoamloopcnt** command:

```
dspoamloopcnt
OAM Loopback Cell Timeout Count: 60
```

Related Commands	Command	Description
	cnfoamloopcnt	Configures the threshold for the number of consecutive OAM end-to-end loopback response cells that must be lost before a PVC is placed into alarm due to a OAM end-to-end loopback failure.

dsपोamparams

To display the transmitted and received permanent virtual circuit (PVC) operations, administration, and maintenance (OAM) cell parameters, use the **dsपोamparams** command

dsपोamparams

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the transmitted and received PVC OAM cell parameters are displayed:

```
dsपोamparams
```

```
OAM Cell Gap:           500 ms
OAM Cell Retry Count:   3
OAM Cell Recover Count: 5
```

Related Commands

Command	Description
cnfdpvcoamparams	Configures the transmitted and received PVC OAM cell parameters.

dspport

To display configuration data about the virtual port that you created with the **addport** command, use the **dspport** command.

dspport

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data about the virtual port created with the **addport** command is displayed:

```
dspport
vismPortNum:          1
vismPortRowStatus:    add
vismPortSpeed:        50000
vismPortState:        active
```

Related Commands

Command	Description
addport	Adds a virtual port between a VISM and PXM cards.
delpport	Deletes a virtual port between a VISM and PXM cards.

dspprofparams

To display the profile elements and the preference for all profiles, use the **dspprofparams** command.

dspprofparams

Syntax Description This command has no arguments or keywords.

Command Modes AAL2 trunking, switched AAL2 SVC, switched AAL2 PVC, VoIP trunking/AAL2 trunking

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

Examples The following example shows the profile elements and preferences for all profiles:

```

dspprofparams
-----
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
-----
Profile Type           : ITU
Profile Number        : 2
Profile Preference    : 3
Voice Profile Codec    : G.711u
Voice Profile Packetization-period(ms) : five
Voice Profile SID     : sidGenric
VBD Profile Codec     : G.711u
VBD Profile Packetization-period (ms) : five
-----
Profile Type           : ITU
Profile Number        : 3
Profile Preference    : 1
Voice Profile Codec    : G.726-32K
Voice Profile Packetization-period(ms) : five
Voice Profile SID     : sidGenric
VBD Profile Codec     : G.711u
VBD Profile Packetization-period (ms) : five
-----
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
-----
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
- - - - -
Profile Type            : Custom
Profile Number         : 100
Profile Preference     : 6
Voice Profile Codec    : G.726-32K
Voice Profile Packetization-period(ms) : ten
Voice Profile SID      : sidGenric
VBD Profile Codec      : G.711u
VBD Profile Packetization-period (ms) : five
- - - - -
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
- - - - -
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
- - - - -
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

```

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.

dsprscrptn

To display configuration data about the resource partition which you created with the **addrscrptn** command, use the **dsprscrptn** command.

dsprscrptn

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the configuration data of the resource partition created with the **addrscrptn** command:

dsprscrptn

```
vismResPartPortNum:      1
vismResPartCtrlrNum:    par
vismResPartRowStatus:   add
vismResPartNumOfLcnAvail: 72
vismResPartLcnLow:      32
vismResPartLcnHigh:     279
vismResPartIngrPctBW:   100
vismResPartEgrPctBW:    100
vismResPartCtrlrID:     2
```

Related Commands	Command	Description
	addrscrptn	Adds a resource partition for a virtual port.

dsprsvpif

To display the Resource Reservation Protocol (RSVP) status of a specified connection, use the **dsprsvpif** command.

```
dsprsvpif <LCN>
```

Syntax Description

<i>LCN</i>	Logical channel number of the connection for which you want to display the RSVP status. Range is 131–510.
------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the RSVP status of LCN 142:

```
dsprsvpif 142

Interface:      142
RSVP:          Enable
Refresh Interval: 45 sec
Refresh Multiple: 7
```

Related Commands

Command	Description
cnfrsvp	Configures RSVP for a specified connection.
cnfrsvpprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.
dsprsvpreq	Displays the data associated with a specified RSVP request.
dsprsvpreqs	Displays all RSVP-known requests on the current VISM card.
dsprsvpresv	Displays all data associated with an RSVP bandwidth reservation.
dsprsvpresvs	Displays all incoming RSVP-known reservations on the current VISM card.
dsprsvpsender	Displays all data associated with a specified RSVP path state.

dsprsvpreq

To display the data associated with a specified Resource Reservation Protocol (RSVP) request, use the **dsprsvpreq** command.

```
dsprsvpreq <session_number> <req_number>
```

Syntax Description

session_number RSVP session number. Range is 1–65535.

req_number RSVP request number. Range is 1–65535.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the data associated with the request identified by RSVP session number 400 and RSVP request number 64521:

```
dsprsvpreq 400 64521

rsvpSessionNumber          : 400
rsvpResvFwdNumber          : 64521
rsvpResvFwdType             : IPv4
rsvpResvFwdDestAddr         : 12.12.12.1
rsvpResvFwdSenderAddr       : 11.11.11.1
rsvpResvFwdDestAddrLength   : 32
rsvpResvFwdSenderAddrLength : 32
rsvpResvFwdProtocol         : IP
rsvpResvFwdDestPort         : 49152
rsvpResvFwdPort             : 49152
rsvpResvFwdHopAddr          : 12.12.12.2
rsvpResvFwdInterface        : 182
rsvpResvFwdService          : Guaranteed
rsvpResvFwdTSpecRate        : 96000 bps
rsvpResvFwdTSpecPeakRate    : 96000 bps
rsvpResvFwdTSpecBurst       : 120 bytes
rsvpResvFwdTSpecMinTU       : 120
rsvpResvFwdTSpecMaxTU       : 120
rsvpResvFwdRSpecRate        : 96000 bps
rsvpResvFwdRSpecSlack       : 0 usec
rsvpResvFwdInterval         : 30000 msec
rsvpResvFwdScope            :
rsvpResvFwdShared           : false
rsvpResvFwdExplicit         : true
rsvpResvFwdRSVPHop          : true
rsvpResvFwdLastChange       : 5474
rsvpResvFwdStatus           : active
```

Related Commands	Command	Description
	cnfrsvp	Configures RSVP for a specified connection.
	cnfrsvprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.
	dsprsvpif	Displays the RSVP status of a specified connection.
	dsprsvpreqs	Displays all RSVP-known requests on the current VISM card.
	dsprsvpresv	Displays all data associated with an RSVP bandwidth reservation.
	dsprsvpresvs	Displays all incoming RSVP-known reservations on the current VISM card.
	dsprsvpsender	Displays all data associated with a specified RSVP path state.

dsprsvpreqs

To display all Resource Reservation Protocol (RSVP)-known requests on the current VISM card, use the **dsprsvpreqs** command.

dsprsvpreqs

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

A request is a generated outgoing reservation message. Use the **dsprsvpresvs** command to display incoming or locally created reservations.

Examples

The following example shows that the RSVP-known request on the current VISM card is displayed:

```
dsprsvpreqs
```

Sess	Resv	From	To	Prot	DPort	SPort	Interval	Serv	BPS
0	0	11.11.11.1	12.12.12.1	IP	49152	49152	30000	Guaranteed	96000

Related Commands

Command	Description
cnfrsvp	Configures RSVP for a specified connection.
cnfrsvprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.
dsprsvpif	Displays the RSVP status of a specified connection.
dsprsvpreq	Displays the data associated with a specified RSVP request.
dsprsvpresv	Displays all data associated with an RSVP bandwidth reservation.
dsprsvpresvs	Displays all incoming RSVP-known reservations on the current VISM card.
dsprsvpsender	Displays all data associated with a specified RSVP path state.
dsprsvpsenders	Displays all RSVP-known path states on the current VISM card.

dsprsvpresv

To display all data associated with a Resource Reservation Protocol (RSVP) bandwidth reservation, use the **dsprsvpresv** command.

```
dsprsvpresv <session_number> <resv_number>
```

Syntax Description

<i>session_number</i>	RSVP session number. Range is 1–65535.
<i>resv_number</i>	RSVP bandwidth reservation number. Range is 1–65535.

Command Modes

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

Usage Guidelines

An RSVP bandwidth reservation is uniquely identified by an RSVP session number and RSVP reservation number combination.

Examples

The following example shows that the data associated with RSVP session number 200 and RSVP bandwidth reservation number 3400 is displayed:

```
dsprsvpresv 200 3400

rsvpSessionNumber      : 200
rsvpResvNumber         : 3400
rsvpResvType           : IPv4
rsvpResvDestAddr       : 12.12.12.1
rsvpResvSenderAddr     : 11.11.11.1
rsvpResvDestAddrLength : 32
rsvpResvSenderAddrLength : 32
rsvpResvProtocol       : IP
rsvpResvDestPort       : 49152
rsvpResvPort           : 49152
rsvpResvHopAddr        : 12.12.12.1
rsvpResvInterface      : 0
rsvpResvService        : Guaranteed
rsvpResvTSpecRate      : 96000 bps
rsvpResvTSpecPeakRate  : 96000 bps
rsvpResvTSpecBurst     : 120 bytes
rsvpResvTSpecMinTU     : 120
rsvpResvTSpecMaxTU     : 120
rsvpResvRSpecRate      : 96000 bps
rsvpResvRSpecSlack     : 0 usec
rsvpResvInterval       : 30000 msec
rsvpResvScope          :
rsvpResvShared         : false
rsvpResvExplicit       : true
rsvpResvRSVPHop        : true
rsvpResvLastChange     : 269040
rsvpResvStatus         : active
```

Related Commands	Command	Description
	cnfrsvp	Configures RSVP for a specified connection.
	cnfrsvprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.
	dsprsvpif	Displays the RSVP status of a specified connection.
	dsprsvpreq	Displays the data associated with a specified RSVP request.
	dsprsvpreqs	Displays all RSVP-known requests on the current VISM card.
	dsprsvpresvs	Displays all incoming RSVP-known reservations on the current VISM card.
	dsprsvpsender	Displays all data associated with a specified RSVP path state.

dsprsvpresvs

To display all incoming Resource Reservation Protocol (RSVP)-known bandwidth reservations on the current VISM card, use the **dsprsvpresvs** command.

dsprsvpresvs

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

This command displays data for reservations that are incoming or created by application programming interface (API) calls. Use the **dsprsvpreqs** command to display data for outgoing reservations or requests.

Examples

The following example shows that all incoming RSVP-known bandwidth reservations are displayed:

```
dsprsvpresvs
```

Sess	Resv	From	To	Prot	DPort	SPort	Interval	Serv	BPS
0	0	11.11.11.1	12.12.12.1	IP	49152	49152	30000	Guaranteed	96000
0	0	12.12.12.1	11.11.11.1	IP	49152	49152	30000	Guaranteed	96000

Related Commands

Command	Description
cnfrsvp	Configures RSVP for a specified connection.
cnfrsvprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.
dsprsvpif	Displays the RSVP status of a specified connection.
dsprsvpreq	Displays the data associated with a specified RSVP request.
dsprsvpreqs	Displays all RSVP-known requests on the current VISM card.
dsprsvpresv	Displays all data associated with an RSVP bandwidth reservation.
dsprsvpsender	Displays all data associated with a specified RSVP path state.

dsprsvpsender

To display all data associated with a specified Resource Reservation Protocol (RSVP) path state, use the **dsprsvpsender** command.

dsprsvpsender <session_number> <sender_number>

Syntax Description

<i>session_number</i>	RSVP session number. Range is 1–65535.
<i>sender_number</i>	RSVP sender number. Range is 1–65535.

Command Modes

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

Usage Guidelines

The session number and sender number combination uniquely identifies a path state.

Examples

The following example shows that the data associated with the RSVP path state identified by RSVP session number 100 and RSVP sender number 23099 is displayed:

```
dsprsvpsender 100 23099

rsvpSessionNumber      : 100
rsvpSenderNumber       : 23099
rsvpSenderType         : IPv4
rsvpSenderDestAddr     : 12.12.12.1
rsvpSenderAddr         : 11.11.11.1
rsvpSenderDestAddrLength : 32
rsvpSenderAddrLength   : 32
rsvpSenderProtocol     : IP
rsvpSenderDestPort     : 49152
rsvpSenderPort         : 49152
rsvpSenderHopAddr     : 12.12.12.2
rsvpSenderInterface    : 182
rsvpSenderTSpecRate    : 96000 bps
rsvpSenderTSpecPeakRate : 96000 bps
rsvpSenderTSpecBurst   : 120 bytes
rsvpSenderTSpecMinTU   : 120
rsvpSenderTSpecMaxTU   : 120
rsvpSenderInterval     : 30000 msec
rsvpSenderRSVPHop     : true
rsvpSenderLastChange   : 4726
rsvpSenderAdspecBreak  : false
rsvpSenderAdspecHopCount : 3
rsvpSenderAdspecPathBw : -855437984 bps
rsvpSenderAdspecMinLatency : 0 usec
rsvpSenderAdspecMtu    : 1500 bytes
rsvpSenderAdspecGuaranteedSvc : ?
rsvpSenderAdspecGuaranteedBreak : ?
rsvpSenderAdspecGuaranteedCtot : 0 bytes
rsvpSenderAdspecGuaranteedDtot : 0 usec
rsvpSenderAdspecGuaranteedCsum : 0 bytes
rsvpSenderAdspecGuaranteedDsum : 0 usec
rsvpSenderAdspecGuaranteedHopCount : 0
rsvpSenderAdspecGuaranteedPathBw : 0 bps
rsvpSenderAdspecGuaranteedMinLatency : 0 usec
```



```

rsvpSenderAdspecGuaranteedMtu      : 0 bytes
rsvpSenderAdspecCtrlLoadSvc        : 1
rsvpSenderAdspecCtrlLoadBreak      : false
rsvpSenderAdspecCtrlLoadHopCount   : 0
rsvpSenderAdspecCtrlLoadPathBw     : 0 bps
rsvpSenderAdspecCtrlLoadMinLatency : 0 usec
rsvpSenderAdspecCtrlLoadMtu        : 0 bytes
rsvpSenderStatus                    : active
rsvpSenderTTL                       : 253

```

Related Commands

Command	Description
cnfrsvp	Configures RSVP for a specified connection.
cnfrsvpprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.
dsprsvpif	Displays the RSVP status of a specified connection.
dsprsvpreq	Displays the data associated with a specified RSVP request.
dsprsvpreqs	Displays all RSVP-known requests on the current VISM card.
dsprsvpresv	Displays all data associated with an RSVP bandwidth reservation.
dsprsvpresvs	Displays all incoming RSVP-known reservations on the current VISM card.
dsprsvpsenders	Displays all RSVP-known path states on the current VISM card.

dsprsvpsenders

To display all Resource Reservation Protocol (RSVP)-known path states on the current VISM card, use the **dsprsvpsenders** command.

dsprsvpsenders

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that all RSVP-known path states on the current VISM card are displayed:

```
dsprsvpsenders
```

Session	Sender	From	To	Prot	DPort	SPort	BPS
0	1	11.11.11.1	12.12.12.1	IP	49152	49152	96000
1	0	12.12.12.1	11.11.11.1	IP	49152	49152	96000

Related Commands

Command	Description
cnfrsvp	Configures RSVP for a specified connection.
cnfrsvpprefreshmiss	Configures the number of times VISM waits for a missed RSVP minimum refresh message for a specified connection.
dsprsvpif	Displays the RSVP status of a specified connection.
dsprsvpreq	Displays the data associated with a specified RSVP request.
dsprsvpreqs	Displays all RSVP-known requests on the current VISM card.
dsprsvpresv	Displays all data associated with an RSVP bandwidth reservation.
dsprsvpresvs	Displays all incoming RSVP-known reservations on the current VISM card.
dsprsvpsender	Displays all data associated with a specified RSVP path state.

dsrtpcnt

To display the bearer counters (statistics) for a specific Real-Time Transport Protocol (RTP) VoIP trunking connection, use the **dsrtpcnt** command.

```
dsrtpcnt <rtp_conn_index>
```

Syntax Description

<i>rtp_conn_index</i>	Connection identification number. Range is 1–248.
-----------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the bearer counters (statistics) for the static RTP connection number 132 are displayed:

```
dsrtpcnt 132

Connection Index :132
Packets Sent    :99604
Packets Received :0
Octets Sent     :7966804
Octets Received :0
Packets Lost    :0
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudp trunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudp trunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudp trunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.

Command	Description
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsrtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsrtpconnstat	Displays the RTP connection statistics for a specified endpoint.
dsrtpcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsrudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsrudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

dsrtpcon

To display the configuration data of a specified static Real-Time Transport Protocol (RTP) VoIP trunking connection, use the **dsrtpcon** command.

```
dsrtpcon <rtp_conn_index>
```

Syntax Description

<i>rtp_conn_index</i>	Connection identification number. Range is 1–248.
-----------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data for the static RTP connection number 106 is displayed:

```
dsrtpcon 106

Connection Index:      1
Endpoint Number:      1
Local RTP Port:        49648
Remote RTP Port:       49648
Remote IP Address:     10.1.30.30
Codec Type:            G.711u
Packetization Period: ten msec
ECAN Status:           Enable
VAD:                   Off
VAD Timer:             250 msec
CAS Transport:         On
DTMF Transport:        On
ICS Enable:            Disable
Bearer TOS:            160
Connection Mode:       GW can send and rcv packets
Conn Alarm State:      Active
Conn Fail Reason:      Not Fail
Payload Type:          256
Associated PVC:        131
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clr RTPcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnfdynamicpayload	Enables or disables the dynamic payload on the current VISM card.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.

Command	Description
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsdynamicpayload	Displays the card level configuration of dynamic payload on the current VISM card.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.
dsrtpent	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsrtpconstat	Displays the RTP connection statistics for a specified endpoint.
dsrtpcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsrudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsrudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

dsrtpconnstat

To display the Real-Time Transport Protocol (RTP) connection statistics for a specified endpoint, use the **dsrtpconnstat** command.

dsrtpconnstat *<endpt_num>*

Syntax Description

endpt_num

Endpoint number. IRanges are

- For template number 1:
 - For VISM, from 1 to 145
 - For VISM-PR T1, from 1 to 192
 - For VISM-PR E1, from 1 to 248
 - For template number 2:
 - For VISM T1, from 1 to 192
 - For VISM E1, from 1 to 248
 - For template number 3:
 - For VISM, from 1 to 120
 - For VISM-PR T1, from 1 to 192
 - For VISM-PR E1, from 1 to 248
 - For template number 4:
 - For VISM, from 1 to 64
 - For VISM-PR, from 1 to 144
 - For template number 5:
 - For VISM-PR T1, from 1 to 192
 - For VISM-PR E1, from 1 to 248
-

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows the RTP connection statistics for endpoint 202:

```
dsrtpconnstat 202
```

```
No. of RTP Packets Sent =      0
No. of RTP Packets Received =  0
No. of Octets Sent =          0
No. of Octets Received =      0
No. of RTP Packets Lost =     0
Interarrival Jitter =         80
Latency =                     0
```

Related Commands	Command	Description
	addrtpcon	Adds a static RTP VoIP trunking connection.
	clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
	cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
	delrtcon	Deletes a static RTP VoIP trunking connection.
	dsrtpcnt	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
	dsrtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
	dsrtpconnstat	Displays the RTP connection statistics for a specified endpoint.

dsrtpcons

To display the configuration data of all static Real-Time Transport Protocol (RTP) VoIP trunking connections, use the **dsrtpcons** command.

dsrtpcons

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data for all static RTP connections are displayed:

```
dsrtpcons
```

Connection Index	Endpoint Number	Local Rtp Port	Remote RTP Port	Remote IP Address	Codec Type	Packetization Period	Alarm State
1	1	49700	49700	209.165.200.224	G711u	ten	Active
2	2	49702	49702	209.165.200.225	G.711u	ten	Active

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.

Command	Description
dsrtpent	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsrtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsrtpconnstat	Displays the RTP connection statistics for a specified endpoint
dsrudptrunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.
dsrudptrunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

dsprudp trunk

To display the configuration data of a specified ISDN PRI backhaul Reliable User Datagram Protocol (RUDP) session, use the **dsprudp trunk** command.

dsprudp trunk <session_number>

Syntax Description

<i>session_number</i>	Identifying session number in the range 1–64.
-----------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data of ISDN PRI backhaul RUDP session number 43 is displayed:

```
dsprudp trunk 43

Session Number      :43
Local Port          :1124
.
.
Trans State Timeout:2000
```

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudp trunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrtpcnt	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudp trunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudp trunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.

Command	Description
dsprtpent	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsprtpcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprtpcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsprudp trunks	Displays the configuration data of all ISDN PRI backhaul RUDP sessions.

dsprudptrunks

To display the configuration data of all ISDN PRI backhaul Reliable User Datagram Protocol (RUDP) sessions, use the **dsprudptrunks** command.

dsprudptrunks

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data of all ISDN PRI backhaul RUDP sessions are displayed:

```
dsprudptrunks
```

Session Number	Local Port	Local IP	Remote IP	Remote Port	Session State
43	1124	209.165.200.224	209.165.200.210	1159	Active

Related Commands

Command	Description
addlapdtrunk	Adds an LAPD trunk to a specific VISM card line.
addrtpcon	Adds a static RTP VoIP trunking connection.
addrudptrunk	Adds an ISDN PRI backhaul RUDP session for an LAPD trunk connection.
clrntpcon	Clears the RTP counters (statistics) for a specific static RTP connection.
cnflapdtrunkpvc	Assigns the PVC trunk type that carries LAPD messages for the current VISM card.
cnflntrunkcond	Enables or disables line conditioning on a VISM card line if a network alarm is encountered.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfrudptrunkrmtip	Modifies the remote IP address of VISM used in the ISDN PRI backhaul RUDP trunk for a specified session.
dellapdtrunk	Deletes an LAPD configured line.
delrtpcon	Deletes a static RTP VoIP trunking connection.
delrudptrunk	Deletes an ISDN PRI backhaul RUDP session that is associated with an LAPD.
dsplapd	Displays data about an LAPD.
dsplapdtrunkpvc	Displays the assigned PVC trunk type that carries LAPD trunk messages for the current VISM card.
dsplapdtrunks	Displays the configuration data of all LAPD trunks.

Command	Description
dsprtptent	Displays the bearer counters (statistics) for a specific RTP VoIP trunking connection.
dsprtptcon	Displays the configuration data of a specific static RTP VoIP trunking connection.
dsprtptcons	Displays the configuration data of all static RTP VoIP trunking connections.
dsprudpunk	Displays the configuration data of a specified ISDN PRI backhaul RUDP session.

dspsarcnt

To display the segmentation and reassembly (SAR) counter values for a specified channel, use the dspsarcnt command.

dspsarcnt <LCN>

Syntax Description

<i>LCN</i>	Logical channel number of the connection for which you want to display SAR counter values. Range is 131–510.
------------	--

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the SAR counter values for logical channel number 132 are displayed:

```
dspsarcnt 132
```

```
SarShelfNum:      1
SarSlotNum:       17
SarChanNum:       132

                        Tx                Rx
-----
Total Cells:      69486                60243
Total CellsCLP:   0                    0
Total CellsAIS:   0                    0
Total CellsFERF:  0                    0
Total CellsEnd2EndLpBk: 0                0
Total CellsSegmentLpBk: 0                0
RcvCellsDiscOAM:                2151467320
```

Related Commands

Command	Description
dspsarcnts	Displays the SAR counter values for a VISM card.

dspsarcnts

To display the segmentation and reassembly (SAR) counter values for a VISM card, use the **dspsarcnts** command.

dspsarcnts

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the SAR counter values for the current VISM card are displayed:

```
dspsarcnts
```

Related Commands	Command	Description
	dspsarent	Displays the SAR counter values for a specified channel.

dspsarmsgcnt

To display the segmentation and reassembly (SAR) control message counter values for a VISM card, use the **dspsarmsgcnt** command.

dspsarmsgcnt

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the SAR control message counter values for the current VISM card are displayed:

```
dspsarmsgcnt

RiscXmtCtrlMsg:          83606
RiscRcvCtrlMsg:          83606
SARXmtCtrlMsg:           83445
SARRcvCtrlMsg:           83606
SARCtrlMsgDiscLenErr:    0
SARCtrlMsgDiscCRCError:  0
SARCtrlMsgDiscUnknownChan: 0
SARCtrlMsgLastUnknownChan: 0
```

Related Commands	Command	Description
	clrsarmsgcnt	Clears the control message counters from a VISM card.

dspseqtonedet

To display the configuration data of a sequential tone, use the **dspseqtonedet** command.

dspseqtonedet

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking

Usage Guidelines Follow standard CLI procedures for this command.



Note

This command is only applicable to the VISM-PR card.

Examples The following example shows the values for a sequential tone that is configured using the **cnfseqtonedet** command:

dspseqtonedet

```
seqToneNumOfFrequencies      3
seqToneEventID              74
seqToneDurationOfEachTone   330 ms
seqToneGapBetweenEachTone   10 ms
seqToneDurationDeviation    20 ms
seqToneMaximumGapDuration   150 ms
seqToneGapDurationDeviation 200 ms
seqToneFreqDeviation        40 hz
seqTonePowerLevelCeiling    -3 dB
seqTonePowerLevelFloor      -40 dB
seqToneFrequency1           950 hz
seqToneFrequency2           1400 hz
seqToneFrequency3           1800 hz
seqToneFrequency4           280 hz
seqToneFrequency5           280 hz
seqToneFrequency6           280 hz
seqToneFrequency7           280 hz
seqToneFrequency8           280 hz
seqToneFrequency9           280 hz
seqToneFrequency10          280 hz
```

Related Commands

Command	Description
cnfseqtonedet	Changes the default settings of a sequential tone.

dsp ses

To display the configuration data of a Primary Rate Interface (PRI) backhaul session, use the **dsp ses** command.

dsp ses <session_number>

Syntax Description	<i>session_number</i> Identifying session number in the range 1–64.								
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC								
Usage Guidelines	Follow standard CLI procedures for this command.								
Examples	<p>The following example shows that the configuration data of PRI backhaul session number 1 is displayed:</p> <pre>dsp ses 1 vismRudpSessionNum: 1 vismRudpSessionGrpNum: 1 vismRudpSessionPriority: 1 vismRudpSessionState: Oos vismRudpSessionCurrSession: 0 vismRudpSessionLocalIp: xxx.xx.xx.xxx vismRudpSessionLocalPort: 1124 vismRudpSessionRmtIp: xxx.xx.xx.xx vismRudpSessionRmtPort: 1124 vismRudpSessionMaxWindow: 32 vismRudpSessionSyncAttempts: 5 vismRudpSessionMaxSegSize: 384 vismRudpSessionMaxAutoReset: 5 vismRudpSessionRetransTmout: 600 vismRudpSessionMaxRetrans: 3 vismRudpSessionMaxCumAck: 3 vismRudpSessionAckTmout: 300 vismRudpSessionMaxOutOfSeq: 4 vismRudpSessionNullSegTmout: 2000 vismRudpSessionTransStateTmout: 2000</pre>								
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>addses</td> <td>Adds a PRI backhaul session between a VISM card and a call agent.</td> </tr> <tr> <td>delses</td> <td>Deletes a PRI backhaul session.</td> </tr> <tr> <td>dsp ses</td> <td>Displays the configuration data of all PRI backhaul sessions.</td> </tr> </tbody> </table>	Command	Description	addses	Adds a PRI backhaul session between a VISM card and a call agent.	delses	Deletes a PRI backhaul session.	dsp ses	Displays the configuration data of all PRI backhaul sessions.
Command	Description								
addses	Adds a PRI backhaul session between a VISM card and a call agent.								
delses	Deletes a PRI backhaul session.								
dsp ses	Displays the configuration data of all PRI backhaul sessions.								

dspesgrp

To display configuration data of a Primary Rate Interface (PRI) backhaul session group, use the **dspesgrp** command.

```
dspesgrp <group_number>
```

Syntax Description

group_number Identifying session group number for which you want to display the PRI backhaul configuration data. Range is 1–16.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the PRI backhaul configuration data for session group number 2 is displayed:

```
dspesgrp 2

vismSessionGrpNum:          2
vismSessionGrpSetNum:       1
vismSessionGrpState:         ?
vismSessionGrpCurrSession:   0
vismSessionGrpTotalSessions: 0
vismSessionGrpMgcName:      abc
vismSessionGrpSwitchFails:   0
vismSessionGrpSwitchSucesses: 0
```

Related Commands

Command	Description
addsesgrp	Adds a PRI backhaul session group between a VISM card and a call agent.
delsesgrp	Deletes a PRI backhaul session group.
dspesgrps	Displays data about all PRI backhaul session groups.

dspesgrps

To display configuration data about all Primary Rate Interface (PRI) backhaul session groups, use the **dspesgrps** command.

dspesgrps

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the configuration data of the current PRI backhaul session groups is displayed:

dspesgrps

```

GrpNum  SetNum  State  ActiveSes  TotalSes  Mgc  SwitchFail  SwitchSuccess
-----
  2      1      ?      0          0         abc      0          0
  3      1      ?      0          0         svc      0          0

```

Related Commands

Command	Description
addsesgrp	Adds a PRI backhaul session group between a VISM card and a call agent.
delsesgrp	Deletes a PRI backhaul session group.
dspesgrp	Displays configuration data of a PRI backhaul session group.

dspssess

To display configuration data about all Primary Rate Interface (PRI) backhaul sessions, use the **dspssess** command.

dspssess

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the current PRI backhaul sessions are displayed:

```
dspssess
```

Related Commands

Command	Description
addses	Adds a PRI backhaul session between a VISM card and a call agent.
delses	Deletes a PRI backhaul session.
dspsses	Displays the configuration data of a PRI backhaul session.

dspsseset

To display configuration data about a specified Primary Rate Interface (PRI) backhaul session set, use the **dspsseset** command.

```
dspsseset <set_number>
```

Syntax Description

set_number Set number in the range 1–16.

Note Currently, only session set number 1 is supported.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the configuration data for PRI backhaul session number 1 is displayed:

```
dspsseset 1

vismSessionSetNum:          1
vismSessionSetState:       Idle
vismSessionSetTotalGrps:   2
vismSessionSetActiveGrp:   0
vismSessionSetFaultTolerant: FT
vismSessionSetSwitchFails: 0
vismSessionSetSwitchSucesses: 0
```

Related Commands

Command	Description
addseset	Adds a PRI backhaul session set between a VISM card and a call agent.
delseset	Deletes a PRI backhaul session set.

dspesstat

To display configuration data about Primary Rate Interface (PRI) backhaul session statistics (counters), use the **dspesstat** command.

```
dspesstat <session_number>
```

Syntax Description

<i>session_number</i>	Session number for which you want to display PRI backhaul session statistics. Range is 1–64.
-----------------------	--

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the statistics (counters) for the PRI backhaul session set number 1 are displayed:

```
dspesstat 1

vismRudpSessionStatNum:      1
vismRudpSessionAutoResets:   0
vismRudpSessionRcvdAutoResets: 0
vismRudpSessionRcvdInSeqs:  0
vismRudpSessionRcvdOutSeqs:  0
vismRudpSessionSentPackets:  5
vismRudpSessionRcvdPackets:  0
vismRudpSessionSentBytes:    0
vismRudpSessionRcvdBytes:    0
vismRudpSessionDataSentPkts: 0
vismRudpSessionDataRcvdPkts: 0
vismRudpSessionDiscardPkts:  0
vismRudpSessionRetransPkts:  0
```

Related Commands

Command	Description
addressset	Adds a PRI backhaul session set between a VISM card and a call agent.
delsesstat	Deletes a PRI backhaul session set.

dspsidpacket

To show whether or not the silence indication detection (SID) packet is enabled for each line, use the **dspsidpacket** command.

dspsidpacket

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the SID packet is only enabled on line 1.

```
dspsidpacket

LineNo/Ds0No          Sid Packet
-----
1/ 1                  Enable
1/ 2                  Enable
1/ 3                  Enable
1/ 4                  Enable
1/ 5                  Enable
1/ 6                  Enable
1/ 7                  Enable
1/ 8                  Enable
1/ 9                  Enable
1/10                 Enable
1/11                 Enable
1/12                 Enable
1/13                 Enable
1/14                 Enable
1/15                 Enable
1/16                 Enable
1/17                 Enable
1/18                 Enable
1/19                 Enable
1/20                 Enable
1/21                 Enable
1/22                 Enable
1/23                 Enable
1/24                 Enable
INFO: line ds1 '2' is not enabled
INFO: line ds1 '3' is not enabled
INFO: line ds1 '4' is not enabled
INFO: line ds1 '5' is not enabled
INFO: line ds1 '6' is not enabled
INFO: line ds1 '7' is not enabled
INFO: line ds1 '8' is not enabled
```

Related Commands

Command	Description
cnfsidpacket	Enables or disables the SID packet on all of the lines.

dspslipcnt

To display the current clock slip counters for a specified VISM card line, use the **dspslipcnt** command.

dspslipcnt <*line_number*>

Syntax Description	<i>line_number</i> Line number of the DS1 line for which you want to display the current clock slip counters. Range is 1–8.
---------------------------	---

Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking
----------------------	---

Usage Guidelines	Follow standard CLI procedures for this command.
-------------------------	--

Examples	The following example shows that the current clock slip counters for line 3 of the current VISM card are displayed:
-----------------	---

```
dspslipcnt 3
```

```
Line 3 Slip Counters:  Tx Slip  Rx Slip
Uncontrolled Slip:    0         0
Frame Slip:           0         2
```

Related Commands	Command	Description
	clrslipcnt	Clears current clock slip counters for a specified VISM card line.

dspsrcpnt

To display the Simple Resource Control Protocol (SRCP) message counters (statistics) for a specified call agent, use the **dspsrcpnt** command.

dspsrcpnt <Ip_address>

Syntax Description

<i>Ip_address</i>	IP address, in dotted decimal format (nnn.nnn.nnn.nnn), of the call agent for which you want to display SRCP statistics.
-------------------	--

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the SRCP message counters (statistics) of IP address 209.165.200.224 are displayed:

```
dspsrcpnt 209.165.200.224
```

Ip	Name	Discarded	Augw/Fail	Auln/Fail	Ntfy/Fail	Rqnt/Fail
2.2.2.2	mgc1	0	0/0	0/0	0/0	0/0

Related Commands

Command	Description
dspsrcpnts	Displays SRCP message counters (statistics) for all known call agents.
dspsrcppeer	Displays the peer configuration data for a specified SRCP peer (call agent).
dspsrcppeers	Displays the peer configuration data for all known SRCP peers (call agents).
dspsrcpport	Displays the local UDP port number used by the SRCP on VISM.
dspsrcpretry	Displays the card level SRCP retransmission parameters—maximum number of retransmission attempts, minimum timeout, and maximum timeout.

dspsrcpnts

To display the Simple Resource Control Protocol (SRCP) message counters (statistics) for all known call agents, use the **dspsrcpnts** command.

dspsrcpnts

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the SRCP message counters (statistics) for all known call agents are displayed:

```
dspsrcpnts
```

```

Ip          Name      Discarded  Augw/Fail  Auln/Fail  Ntfy/Fail  Rqnt/Fail
-----
2.2.2.2    mgc1      0          0/0        0/0        0/0        0/0

```

Related Commands

Command	Description
dspsrcpnt	Displays the SRCP message counters (statistics) for a specified call agent.
dspsrcppeer	Displays the peer configuration data for a specified SRCP peer (call agent).
dspsrcppeers	Displays the peer configuration data for all known SRCP peers (call agents).
dspsrcpport	Displays the local UDP port number used by the SRCP on VISM.
dspsrcpretry	Displays the card level SRCP retransmission parameters—maximum number of retransmission attempts, minimum timeout, and maximum timeout.

dspsrcppeer

To display the peer configuration data for a specified Simple Resource Control Protocol (SRCP) peer (call agent), use the **dspsrcppeer** command.

```
dspsrcppeer <peer_id>
```

Syntax Description

<i>peer_id</i>	Peer (call agent) identification number. Range is 1–8.
----------------	--

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the peer configuration data for the call agent identified by peer number 1 is displayed:

```
dspsrcppeer 1

Id      PortNumber
----      -
1        1025
```

Related Commands

Command	Description
dspsrcpnt	Displays the SRCP message counters (statistics) for a specified call agent.
dspsrcpnts	Displays SRCP message counters (statistics) for all known call agents.
dspsrcppeers	Displays the peer configuration data for all known SRCP peers (call agents).
dspsrcpport	Displays the local UDP port number used by the SRCP on VISM.
dspsrcpretry	Displays the card level SRCP retransmission parameters—maximum number of retransmission attempts, minimum timeout, and maximum timeout.

dspsrcppeergrpparams

To display the Simple Resource Control Protocol (SRCP) parameters for all call agent redundancy groups that have SRCP added, use the **dspsrcppeergrpparams** command.

dspsrcppeergrpparams

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the SRCP parameters for all call agent redundancy groups that have SRCP added are displayed:

```
dspsrcppeergrpparams
```

```
Mgc Grp Num HeartbeatIntv TimeSinceHeartbeat MaxPdu
-----
      1             120             0             4096
```

Related Commands

Command	Description
addmgcgrpentry	Configures call agents as part of an MGC redundancy group and assigns a priority value for a call agent.
addmgcgrpprotocol	Associates a call agent redundancy group to a gateway control protocol.
cnfmgcgrpentry	Modifies the call agent priority level of a call agent within a call agent redundancy group.
cnfmgcgrpparam	Modifies a call agent redundancy group state change notification policy and priority level.
cnfsrcppeer	Configures the SRCP parameters when SRCP is the selected protocol for communication between the VISM card and call agent.
cnfsrcppeergrpparam	Modifies the SRCP heartbeat interval and maximum UDP size for a specified call agent redundancy group.
delmgcgrpentry	Deletes a call agent from a call agent redundancy group.
delmgcgrpprotocol	Deletes an MGCP from a specified call agent redundancy group.
dspmgcgrpparams	Displays all configured call agent redundancy group parameters.
dspmgcgrpprotocols	Displays all configured call agent redundancy group protocols.
dspmgcgrps	Displays all configured call agent redundancy groups.

dspsrcpeers

To display the peer configuration data for all known Simple Resource Control Protocol (SRCP) peers (call agents), use the **dspsrcpeers** command.

dspsrcpeers

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the configuration data for all known SRCP peers (call agents) are displayed:

```
dspsrcpeers
```

Related Commands

Command	Description
dspsrcpnt	Displays the SRCP message counters (statistics) for a specified call agent.
dspsrcpnts	Displays SRCP message counters (statistics) for all known call agents.
dspsrcppeer	Displays the peer configuration data for a specified SRCP peer (call agent).
dspsrcpport	Displays the local UDP port number used by the SRCP on VISM.
dspsrcpretry	Displays the card level SRCP retransmission parameters—maximum number of retransmission attempts, minimum timeout, and maximum timeout.

dspsrcpport

To display the local User Datagram Protocol (UDP) port number used by the Simple Resource Control Protocol (SRCP) on VISM, use the **dspsrcpport** command.

dspsrcpport

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the local UDP port number used by the SRCP is displayed:

```
dspsrcpport
srcpPortNumber: 2428
```

Related Commands

Command	Description
dspsrcpcent	Displays the SRCP message counters (statistics) for a specified call agent.
dspsrcpents	Displays SRCP message counters (statistics) for all known call agents.
dspsrcppeer	Displays the peer configuration data for a specified SRCP peer (call agent).
dspsrcppeers	Displays the peer configuration data for all known SRCP peers (call agents).
dspsrcpretry	Displays the card level SRCP retransmission parameters—maximum number of retransmission attempts, minimum timeout, and maximum timeout.

dspsrcpretry

To display the VISM card level Simple Resource Control Protocol (SRCP) retransmission parameters—maximum number of retransmission attempts, minimum timeout, and maximum timeout—use the **dspsrcpretry** command.

dspsrcpretry

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the VISM card level SRCP retransmission parameters are displayed:

```
dspsrcpretry

Min Request Timeout :    500
Retry Count         :     3
Max Request Timeout :    500
```

Related Commands	Command	Description
	dspsrcpcent	Displays the SRCP message counters (statistics) for a specified call agent.
	dspsrcpents	Displays SRCP message counters (statistics) for all known call agents.
	dspsrcppeer	Displays the peer configuration data for a specified SRCP peer (call agent).
	dspsrcppeers	Displays the peer configuration data for all known SRCP peers (call agents).
	dspsrcpport	Displays the local UDP port number used by the SRCP on VISM.

dspsvcaal2cid

To display the current configured AAL2 switched virtual connection (SVC) channel ID (CID) number, use the **dspsvcaal2cid** command.

dspsvcaal2cid

Syntax Description This command has no arguments or keywords.

Command Modes Switched AAL2 SVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the AAL2 SVC CID value you configured using the **cnfsvcaal2cid** command.

```
dspsvcaal2cid
```

```
The default AAL2 SVC cid value: 100
```

Related Commands

Command	Description
cnfsvcaal2cid	Configures the AAL2 CID value used in a single AAL2 SVC.

dspsvccallstruct

To display all switched virtual connection (SVC) call table information for the SVC, use the **dspsvccallstruct** command.

dspsvccallstruct <*svcIndex*>

Syntax Description

svcIndex SVC ID. Range is 1–255.

Command Modes

AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines

Follow standard CLI procedures when using this command.

Examples

The following example shows the SVC call table information for SVC 121.

```
dspsvccallstruct 121

next free index:0
next active index:0
prev active index:0
ccConnIndex:120
svcIndex:121
svcServiceType:real-time Variable Bit Rate
svcConnType:AAL2
Peak Cell Rate      :201 cps
Sustained Cell Rate :200 cps
Maximum Burst Size  :5 cps
Signalled OR Scaled Sustained Cell Rate :200 cps
PNNI Handle:113
logical channel number:390
setupInd timestamp:-652139922 ms
setupReq timestamp:0 ms
callprocInd timestamp:0 ms
connectInd timestamp:0 ms
connectReq timestamp:-652139922 ms
connectAckInd timestamp:-652139882 ms
connectAckReq timestamp:0 ms
releaseInd timestamp:0 ms
releaseReq timestamp:0 ms
releaseCompInd timestamp:0 ms
releaseCompReq timestamp:0 ms
SVC timer type:SVC_CONNECT_TIMER
previous call state:SVC_CALL_U8_CONNECT_REQ
current call state:SVC_CALL_U10_ACTIVE
call event:SVC_CALL_CONNECT_ACK_IND
resync flag:0
localEecid:121
remoteEecid:0
called address:470091810000000007856e12f0000001070bff15
rel cause:0
```

Related Commands	Command	Description
	dspsvccalltable	Displays the SVC call table.
	dspsvccalltimers	Displays the timer pending for each call.
	dspsvccause	Prints the text description for the cause.
	dspsvccnts	Displays the SVC SAPI message processing counts.
	dspsvccns	Displays the active SVC connections.
	dspsvcgw	Displays the details of the gateway parameters.

dspsvccalltable

To display the switched virtual connection (SVC) call table, use the **dspsvccalltable** command.

dspsvccalltable

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.
You can scroll forward through the table or quit.

Examples The following example shows the call table for the originating end of the call:

```
dspsvccalltable
```

svc Index	ccConn Index	PNNI Hnd	LCN	cur call state	Previous state	svc event
1	1	2	510	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
2	2	3	509	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
3	3	4	508	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
4	4	32	507	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
5	5	5	506	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
6	6	6	505	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
7	7	7	504	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
8	8	8	503	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
9	9	9	502	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
10	10	10	501	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
11	11	11	500	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
12	12	12	499	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
13	13	13	498	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
14	14	14	497	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
15	15	15	496	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
16	16	16	495	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
17	17	17	494	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK
18	18	18	493	SVC_CALL_U10_ACTIVE	SVC_CALL_U8_CONNECT_	SVC_CALL_CONNECT_ACK

(m) -more (q) -quit

The following example shows the call table for the terminating end of the call:

```
dspsvccalltable
```

svc Index	ccConn Index	PNNI Hnd	LCN	cur call state	Previous state	svc event
1	1	2	510	SVC_CALL_U10_ACTIVE	SVC_CALL_U3_OUTGOING	SVC_CALL_CONNECT_IND
2	2	3	509	SVC_CALL_U10_ACTIVE	SVC_CALL_U3_OUTGOING	SVC_CALL_CONNECT_IND
3	3	4	508	SVC_CALL_U10_ACTIVE	SVC_CALL_U3_OUTGOING	SVC_CALL_CONNECT_IND
4	4	5	507	SVC_CALL_U10_ACTIVE	SVC_CALL_U3_OUTGOING	SVC_CALL_CONNECT_IND
5	5	6	506	SVC_CALL_U10_ACTIVE	SVC_CALL_U3_OUTGOING	SVC_CALL_CONNECT_IND
6	6	7	505	SVC_CALL_U10_ACTIVE	SVC_CALL_U3_OUTGOING	SVC_CALL_CONNECT_IND

```

7      7      8      504 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
8      8      9      503 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
9      9     10     502 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
10     10     11     501 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
11     11     12     500 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
12     12     13     499 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
13     13     14     498 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
14     14     15     497 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
15     15     16     496 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
16     16     17     495 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
17     17     18     494 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND
18     18     19     493 SVC_CALL_U10_ACTIVE SVC_CALL_U3_OUTGOING SVC_CALL_CONNECT_IND

```

Related Commands

Command	Description
dspsvccallstruct	Displays the SVC call table information.
dspsvccalltimers	Displays the timer pending for each call.
dspsvccause	Prints the text description for the cause.
dspsvccnts	Displays the SVC SAPI message processing counts.
dspsvccns	Displays the active SVC connections.
dspsvcgw	Displays the details of the gateway parameters.

dspvccalltimers

To display the timer pending for each call, use the **dspvccalltimers** command.

dspvccalltimers

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.
You can scroll forward through the table or quit.

Examples The following example shows the SVC call timers:

```
dspvccalltimers
```

```
svcIndex          Timer Type          current call state
  1                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
  2                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
  3                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
  4                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
  5                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
  6                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
  7                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
  8                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
  9                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 10                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 11                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 12                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 13                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 14                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 15                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 16                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 17                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
 18                SVC_CALL_PROC_TIMER SVC_CALL_U10_ACTIVE
```

```
(m) -more    (q) -quit
```

Related Commands

Command	Description
dspvccallstruct	Displays the SVC call table information.
dspvccalltable	Displays the SVC call table.
dspsvccause	Prints the text description for the cause.
dspsvccnts	Displays the SVC SAPI message processing counts.
dspsvccns	Displays the active SVC connections.
dspsvcgw	Displays the details of the gateway parameters.

dspsvccause

To print the text description for the cause identified in the cause ID parameter, use the **dspsvccause** command.

```
dspsvccause <cause_id>
```

Syntax Description

<i>cause_id</i>	Cause ID. Range is 1–255. A value of 0 prints the entire table.
-----------------	---

Command Modes

AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines

Follow standard CLI procedures when using this command.

Examples

The following example shows cause IDs and their meanings:

```
dspsvccause 0

cause 0: Invalid Cause Value
cause 1: Unallocated (unassigned) Number
cause 2: No Route to Specified Transit Network
cause 3: No Route To Destination
cause 10: VPI VCI Unacceptable
cause 16: Normal Nall Nlearing
cause 17: User Busy
cause 18: No User Responding
cause 19: No Answer from User (User Alerted)
cause 21: Call Rejected
cause 22: Number Changed
cause 23: User Rejects All Screened Numbers
cause 27: Destination Out of Order
cause 28: Invalid Number Format, Address Incomplete
cause 29: Facility Rejected
cause 30: Response to Status Enquiry Message
cause 31: Normal, Unspecified
cause 35: Requested VPCI/VCI Not Available

(m) -more    (q) -quit
```



Note

Although more causes are listed, only the causes in the example above are supported.

Related Commands

Command	Description
dspsvccallstruct	Displays the SVC call table information.
dspsvccalltable	Displays the SVC call table.
dspsvccalltimers	Displays the SVC call timers.
dspsvccnts	Displays the SVC SAPI message processing counts.

Command	Description
dspsvicons	Displays the active SVC connections.
dspsvcgw	Displays the details of the gateway parameters.

dspvcnts

To display the switched virtual connection (SVC) service access point identifier (SAPI) message processing counts, use the **dspvcnts** command. This command starts a menu-driven interface that enables you to refresh the screen with current counts, to zero all counters, and to toggle sequentially through the default, restart/resync, and failure screens.

dspvcnts

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows the counts on the originating side:

```

dspvcnts

-----
Currently Active Calls: 124
Total Calls:          124

                Received      Last          Transmitted    Last
                Cause         Cause         Cause         Cause

Outgoing:      CALLPROC    124 NNN         SETUP          124 NNN
                CONNECT     124 NNN         CONN_ACK       124 NNN

Incoming:      SETUP         0  NNN
                CONN_ACK    0  NNN         CONNECT        0  NNN

Common:        REL_COM      0  NNN         RELEASE        0  NNN
                RELEASE     0  NNN         REL_COM        0  NNN

(z)-zero counts (r)-refresh (c)-translate cause code (t)-toggle (q)-quit
cause 0 :Invalid Cause Value

Currently Active Calls: 124
Total Calls:          124

                Received      Last          Transmitted    Last
                Cause         Cause         Cause         Cause

Outgoing:      CALLPROC    24 NNN         SETUP          124 NNN
                CONNECT    124 NNN         CONN_ACK       124 NNN

Incoming:      SETUP         0  NNN
                CONN_ACK    0  NNN         CONNECT        0  NNN

Common:        REL_COM      0  NNN         RELEASE        0  NNN
                RELEASE     0  NNN         REL_COM        0  NNN

(z)-zero counts (r)-refresh (c)-translate cause code (t)-toggle (q)-quit
cause 0 :Invalid Cause Valueq

```

The following example shows the counts on the terminating side:

dspsvcnts

```

Currently Active Calls: 155
Total Calls:          155          Last          Last
                    Received      Cause          Transmitted    Cause
Outgoing:            CALLPROC    0   NNN          SETUP         0   NNN
                    CONNECT       0   NNN          CONN_ACK      0   NNN

Incoming:            SETUP        155  NNN
                    CONN_ACK     155  NNN          CONNECT      155  NNN

Common:              REL_COM     0   NNN          RELEASE       0   NNN
                    RELEASE      0   NNN          REL_COM       0   NNN

(z)-zero counts (r)-refresh (c)-translate cause code (t)-toggle (q)-quit
cause 0 :Invalid Cause Value

```

```

Currently Active Calls: 155
Total Calls:          155          Last          Last
                    Received      Cause          Transmitted    Cause
Outgoing:            CALLPROC    0   NNN          SETUP         0   NNN
                    CONNECT       0   NNN          CONN_ACK      0   NNN

Incoming:            SETUP        155  NNN
                    CONN_ACK     155  NNN          CONNECT      155  NNN

Common:              REL_COM     0   NNN          RELEASE       0   NNN
                    RELEASE      0   NNN          REL_COM       0   NNN

(z)-zero counts (r)-refresh (c)-translate cause code (t)-toggle (q)-quit

```

Related Commands

Command	Description
dspsvccallstruct	Displays the SVC call table information.
dspsvccalltable	Displays the SVC call table.
dspsvccalltimers	Displays the SVC call timers.
dspsvccause	Prints the text description for the cause.
dspsvicons	Displays the active SVC connections.
dspsvcgw	Displays the details of the gateway parameters.

dspsvccons

To display the active switched virtual connections (SVCs), use the **dspsvccons** command.

dspsvccons

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows the active SVCs:

```
dspsvccons
```

```
Current SVCs: 186      Current Active SVCs: 186      Max SVCs: 300
SVC   Channel   Current           MGCP           Destination
Call# Number   State             Conn ID        NSAP
-----
 1     510     SVC_CALL_U10_ACTIVE      1  47009181000000000164444b94000001075bff15
 2     509     SVC_CALL_U10_ACTIVE      2  47009181000000000164444b94000001075bff15
 3     508     SVC_CALL_U10_ACTIVE      3  47009181000000000164444b94000001075bff15
 4     507     SVC_CALL_U10_ACTIVE      4  47009181000000000164444b94000001075bff15
 5     506     SVC_CALL_U10_ACTIVE      5  47009181000000000164444b94000001075bff15
 6     505     SVC_CALL_U10_ACTIVE      6  47009181000000000164444b94000001075bff15
 7     504     SVC_CALL_U10_ACTIVE      7  47009181000000000164444b94000001075bff15
 8     503     SVC_CALL_U10_ACTIVE      8  47009181000000000164444b94000001075bff15
 9     502     SVC_CALL_U10_ACTIVE      9  47009181000000000164444b94000001075bff15
10     501     SVC_CALL_U10_ACTIVE     10  47009181000000000164444b94000001075bff15
11     500     SVC_CALL_U10_ACTIVE     11  47009181000000000164444b94000001075bff15
12     499     SVC_CALL_U10_ACTIVE     12  47009181000000000164444b94000001075bff15
13     498     SVC_CALL_U10_ACTIVE     13  47009181000000000164444b94000001075bff15
14     497     SVC_CALL_U10_ACTIVE     14  47009181000000000164444b94000001075bff15
15     496     SVC_CALL_U10_ACTIVE     15  47009181000000000164444b94000001075bff15
16     495     SVC_CALL_U10_ACTIVE     16  47009181000000000164444b94000001075bff15
17     494     SVC_CALL_U10_ACTIVE     17  47009181000000000164444b94000001075bff15
18     493     SVC_CALL_U10_ACTIVE     18  47009181000000000164444b94000001075bff15
```

```
(m) -more      (q) -quit
```

Related Commands

Command	Description
dspsvccallstruct	Displays the SVC call table information.
dspsvccalltable	Displays the SVC call table.
dspsvccalltimers	Displays the SVC call timers.
dspsvccause	Prints the text description for the cause.
dspsvccnts	Displays the SVC SAPI message processing counts.
dspsvcgw	Displays the details of the gateway parameters.

dspsvcgw

To display the details of the switched virtual connection (SVC) gateway parameters, use the **dspsvcgw** command.

dspsvcgw

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows the gateway parameters:

```
dspsvcgw

current state: SVC_GW_ACTIVE
previous state:SVC_GW_RESTART_PENDING
current event: SVC_GW_INVALID_EVENT
oper state:SVC_GW_OPER_IS
AESA:47009181000000000164444b9400000107f3ff00
AESA type:
timer type:SVC_INVALID_TIMER
gw timer:1818
SAPI client id:6
gw SAPI handle:0
```

Related Commands

Command	Description
dspsvccallstruct	Displays the SVC call table information.
dspsvccalltable	Displays the SVC call table.
dspsvccalltimers	Displays the SVC call timers.
dspsvccause	Prints the text description for the cause.
dspsvccnts	Displays the SVC SAPI message processing counts.
dspsvicons	Displays the active SVCs.

dspsvcqosparam

To display the ATM Quality of Service (QoS) parameters, use the **dspsvcqosparam** command.

dspsvcqosparam

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows the ATM QoS parameters for the current VISM card.

```
dspsvcqosparam
```

```
Voice SVC - default Atm Qos parameters
End-to-End Cell Delay Variation = 20000 micro-sec
Maximum Cell Transfer Delay      = 150000 micro-sec
Maximum Cell Loss Ratio          = 8
```

Related Commands

Command	Description
cnfsvcqosparam	Configures ATM QoS parameters.

dspvctrfscalingfactor

To display the switched virtual connection (SVC) traffic scaling factors for voice, use the **dspvctrfscalingfactor** command.

dspvctrfscalingfactor

Syntax Description This command has no arguments or keywords.

Command Modes switched AAL2 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples The following example shows the SVC traffic scaling factor for the current VISM card.

```
dspvctrfscalingfactor
SVC Traffic Scaling Factor: 50
```

Related Commands

Command	Description
cnfsvctrfscalingfactor	Configures the traffic scaling factor for voice service.

dspt38fxlco

To display the fax handling instructions configured for a specified line, use the **dspt38fxlco** command.

dspt38fxlco <line_number>

Syntax Description

<i>line_number</i>	Line number of the DS1 line for which you want to display T.38 fax handling instructions. Range is 1–8.
--------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the fax handling instructions configured for line 3 are displayed:

```
dspt38fxlco 3

line_number: 3
FX_LCO: Gateway controlled preferred then pass-through
```

Related Commands

Command	Description
cnfcodectmpl	Assigns a codec template to an entire VISM card.
cnft38fxlco	Configures the fax handling instructions for a specified line.
cnft38nsetimeout	Configures a specified line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
cnft38params	Configures the T.38 fax transfer parameters for a specified line.
dspscodectmpls	Displays all entries in the codec template table.
dspt38fxlcos	Displays the fax handling instructions for all lines on the current VISM card.
dspt38nsetimeout	Displays a specified configured line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38nsetimeouts	Displays all configured lines with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38params	Displays the T.38 fax transfer parameters for a specified line.

dspt38fxlcos

To display the fax handling instructions for all lines on the current VISM card, use the **dspt38fxlcos** command.

dspt38fxlcos

Syntax Description This command has no arguments or keywords.

Command Modes VoIP trunking/VoIP switching, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the fax handling instructions for all lines on the current VISM card are displayed:

```
dspt38fxlcos

Line_Number  Fx LCO
-----  -----
1           Gateway controlled preferred then pass-through
2           Gateway controlled preferred then pass-through
.
.
.
8           Gateway controlled preferred then pass-through
```

Related Commands	Command	Description
	cnfcodectmpl	Assigns a codec template to an entire VISM card.
	cnft38fxlco	Configures the fax handling instructions for a specified line.
	cnft38nsetimeout	Configures a specified line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
	cnft38params	Configures the T.38 fax transfer parameters for a specified line.
	dspecodectmpls	Displays all entries in the codec template table.
	dspt38fxlco	Displays the fax handling instructions configured for a specified line.
	dspt38nsetimeout	Displays a specified configured line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
	dspt38nsetimeouts	Displays all configured lines with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
	dspt38params	Displays the T.38 fax transfer parameters for a specified line.

dspt38nsetimeout

To display a specified configured line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode, use the **dspt38nsetimeout** command.

dspt38nsetimeout <line_number>

Syntax Description

line_number Line number of the channel. Range is 1–8.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode configured for line 5 is displayed:

```
dspt38nsetimeout 5

line_number: 5
FX_Nse_Timer: 1000 ms
```

Related Commands

Command	Description
cnfcodectmpl	Assigns a codec template to an entire VISM card.
cnft38fxlco	Configures the fax handling instructions for a specified line.
cnft38nsetimeout	Configures a specified line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
cnft38params	Configures the T.38 fax transfer parameters for a specified line.
dspcodectmpls	Displays all entries in the codec template table.
dspt38fxlco	Displays the fax handling instructions configured for a specified line.
dspt38fxlcos	Displays the fax handling instructions for all lines on the current VISM card.
dspt38nsetimeouts	Displays all configured lines with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38params	Displays the T.38 fax transfer parameters for a specified line.

dspt38nsetimeouts

To display all configured lines with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode, use the **dspt38nsetimeouts** command.

dspt38nsetimeouts

Syntax Description This command has no arguments or keywords.

Command Modes VoIP trunking/VoIP switching, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode configured for all lines on the current VISM card is displayed:

```
dspt38nsetimeouts
```

```
Line_Number  NSE Timeout (ms)
-----
1             1000
2             1000
.
.
.
8             1000
```

Related Commands

Command	Description
cnfcodectmpl	Assigns a codec template to an entire VISM card.
cnft38fxlco	Configures the fax handling instructions for a specified line.
cnft38nsetimeout	Configures a specified line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
cnft38params	Configures the T.38 fax transfer parameters for a specified line.
dspecodectmpls	Displays all entries in the codec template table.
dspt38fxlco	Displays the fax handling instructions configured for a specified line.
dspt38fxlcos	Displays the fax handling instructions for all lines on the current VISM card.
dspt38nsetimeout	Displays a specified configured line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38params	Displays the T.38 fax transfer parameters for a specified line.

dspt38params

To display the T.38 fax transfer parameters for a specified line, use the **dspt38params** command.

dspt38params <line_number>

Syntax Description

<i>line_number</i>	Line number of the DS1 line for which you want to display T.38 fax transfer parameters. Range is 1–8.
--------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the T.38 fax transfer parameters for line 7 are displayed:

```
dspt38params 7

line_number:          7
Max_Xmit_Rate:       fx14400bps
Info_Field_Size:     48
Data_Pkt_size:       40 ms
LS_Data_Redundancy:  5
HS_Data_Redundancy:  2
TCF_Method:          localTCF
Error_Correction:    enabled
NSF_Override:        enabled
NSF_Country_Code:   181
NSF_Vendor_Code:     18
```

Related Commands

Command	Description
cnfcodectmpl	Assigns a codec template to an entire VISM card.
cnft38fxlco	Configures the fax handling instructions for a specified line.
cnft38nsetimeout	Configures a specified line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
cnft38params	Configures the T.38 fax transfer parameters for a specified line.
dspcodectmpls	Displays all entries in the codec template table.
dspt38fxlco	Displays the fax handling instructions configured for a specified line.
dspt38fxlcos	Displays the fax handling instructions for all lines on the current VISM card.
dspt38nsetimeout	Displays a specified configured line with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.
dspt38nsetimeouts	Displays all configured lines with a length of time in which to wait for a remote acknowledgment of the offer to switch to fax transfer mode.

dsptaskinfo

To display data about currently operating tasks, use the **dsptaskinfo** command.

dsptaskinfo

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the data of the currently operating tasks is displayed:

```
dsptaskinfo

taskName      msgReceivd      msgSent          msgSent          lastSent  lastSt  lastSt
              msgSent         Failed           FailedTask      Failed   Failed
              MsgTyp  Errno
-----
nmimRouter    0                60                0                0         0x0
scm           1240             584                0                0         0x0
pSNMP         0                1                 0                0         0x0
cmm           277              258                0                0         0x0
conn_mgr_t    1109790          29                 0                0         0x0
tFiled        68               69                 0                0         0x0
tSmd          237              313                0                0         0x0
logd          304              1                  0                0         0x0
alarm_task    0                29                 0                0         0x0
oam           5                1109778            0                0         0x0
bertd         0                1                  0                0         0x0
```

Related Commands There are no related commands.

dsptonebuiltinplans

To display all built-in (preconfigured) tone plans on the current VISM card, use the **dsptonebuiltinplans** command.

dsptonebuiltinplans

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

VISM supports version 1 of the country and region built-in tone plans listed in [Table 7-12](#).

Table 7-12 Built-in Tone Plans

Tone Plan Name	Tone Plan Name	Tone Plan Name	Tone Plan Name
ITU	North America	Argentina	Australia
Austria	Belgium	Brazil	Canada
China	Cyprus	Czech Republic	Denmark
Finland	France	Germany	Greece
Hong Kong	Hungary	Iceland	India
Indonesia	Ireland	Israel	Italy
Japan	Korean Republic	Luxembourg	Malaysia
Mexico	Netherlands	New Zealand	Norway
Philippines	Poland	Portugal	Russia
Singapore	Slovakia	Slovenia	South Africa
Spain	Sweden	Switzerland	Taiwan
Thailand	Turkey	United Kingdom	United States

Examples

The following example shows that all preconfigured tone plans for the current VISM card are displayed:

```
dsptonebuiltinplans
```

```
Status      Tone Plan Region  Version  Tone Plan File Name
-----
configure   ITU              1        BUILTIN
.
.
.
configure   United States    1        BUILTIN
```

```
Number of Built-In Tone Plans = 48.
```

Related Commands	Command	Description
	addtoneplan	Adds a tone plan to the current VISM card.
	cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
	cnflntoneplan	Assigns a tone plan to a specified VISM card line.
	cnflntonetimeout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
	dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
	deltoneplan	Deletes a previously added tone plan from the current VISM card.
	dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
	dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
	dsplntonetimeout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
	dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
	dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
	dsptoneprovplans	Displays all user-added (provisional) tone plans.
	dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

dsptoneplan

To display the tone configuration of a specified tone plan—either a built-in (preconfigured) or a provisional tone plan—use the **dsptoneplan** command.

```
dsptoneplan <tone_plan_region> <tone_plan_version>
```

Syntax Description

<i>tone_plan_region</i>	Tone plan country or region for which you want to display the tone configuration. Range is 1–64 alphanumeric characters and can contain underscores (_). This value is case sensitive.
<i>tone_plan_version</i>	Tone plan version number of the tone plan country or region for which you want to display the tone configuration. Range is 1–65535.

Command Modes

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

Usage Guidelines

This command displays amplitudes as a number which corresponds to a dBm value according to the following formula:

$$\text{dBm} = 20 * \log_{10} (\text{peek-to-peek}/46348)$$

This formula equals the amplitude of one frequency. If both frequencies are configured for the same level, add 6 dBm to the results of the formula to obtain the total amplitude.

Examples

The following example shows that the tone configuration for singapore tone plan region, version number 11, is displayed:

```
dsptoneplan singapore 11

Region Name :Singapore
Version: 1
Description: Tone Plan for Singapore (SG)
File name: BUILTIN
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.

Command	Description
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

dsptoneplans

To display the tone configuration of all tone plans—either built-in (preconfigured) or provisional tone plans—use the **dsptoneplans** command.

dsptoneplans

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

This command displays the status of tone plans in the following ways:

- **Configure**—For a built-in (preconfigured) tone plan, and a provisional tone plan that is downloaded properly and added to the system.
- **Lost File**—For a provisional tone plan that is not downloaded properly or for a tone plan that is not the proper one.
- **Reloading**—For a provisional tone plan that is currently downloading.

Examples

The following example shows that the tone configuration for tone plans is displayed:

```
dsptoneplans
```

```
Status      Tone Plan Region  Version  Tone Plan File Name
-----
configure   singapore         11       sing_3
configure   ITU                1        BUILTIN
.
.
.
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimeout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.

Command	Description
dsplntonetimeout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
dsptoneprovplans	Displays all user-added (provisional) tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

dsptoneprovplans

To display all provisional tone plans, use the **dsptoneprovplans** command.

dsptoneprovplans

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

This command displays the status of tone plans in the following ways:

- Configure—Downloaded properly and added to the system.
- Lost File—Not downloaded properly or for a tone plan that is not the proper one.
- Reloading—Currently downloading.

Examples

The following example shows that all provisional tone plans are displayed:

```
dsptoneprovplans
```

```
Status      Tone Plan Region  Version  Tone Plan File Name
-----
configure   singapore         11      sing_3
.
.
.
```

```
Number of Provisionable Tone Plans = 1.
Number of un-configured Tone Plans = 31.
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimeout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
delntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimeout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.

Command	Description
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneregionplans	Displays a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply.

dsptoneregionplans

To display a list of all tone plans for the countries and regions whose name partially or completely matches the name you supply, use the **dsptoneregionplans** command.

```
dsptoneregionplans <tone_plan_region>
```

Syntax Description

tone_plan_region Tone plan country or region for which you want to display associated tone plans. Range is 1–64 alphanumeric characters and can contain underscores (_). This value is case sensitive.

Note You must enter at least a partial *tone_plan_region* value, and the value must be enclosed in quotation marks.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that all tone plans associated with the partial tone plan region Uni are displayed:

```
dsptoneregionplans "Uni"
```

```
Status      Tone Plan Region  Version  Tone Plan File Name
-----
configure   UnitedKingdon     11       BUILTIN
configure   UnitedStates      11       BUILTIN
```

```
Number of Matching Tone Plans = 2.
```

Related Commands

Command	Description
addtoneplan	Adds a tone plan to the current VISM card.
cnflnringback	Configures the ringback tone method for a specified line on the current VISM card.
cnflntoneplan	Assigns a tone plan to a specified VISM card line.
cnflntonetimout	Modifies the timeout periods of all call progress tones supported by VISM on a specified VISM card line.
dellntoneplan	Deletes the tone plan configuration of a specified VISM card line.
deltoneplan	Deletes a previously added tone plan from the current VISM card.
dsplnringback	Displays the ringback tone method for a specified line on the current VISM card.
dsplntoneplan	Displays the tone plan configuration of a specified VISM card line.
dsplntonetimout	Displays the configured timeout periods for all call progress tones of a specified VISM card line.

Command	Description
dsptonebuiltinplans	Displays all preconfigured (built-in) tone plans on the current VISM card.
dsptoneplan	Displays the tone configuration of a specified tone plan—either a preconfigured (built-in) or user-added tone plan.
dsptoneplans	Displays the tone configuration of all tone plans—either preconfigured (built-in) or user-added tone plans.
dsptoneprovplans	Displays all user-added (provisional) tone plans.

dsptranscotmode

To display whether or not the reverse transponder continuity test (COT) is enabled, use the **dsptranscotmode** command.

dsptranscotmode

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the COT tone you configured using the **cnftranscotmode** command. The 1780 Hz tone does not reverse the COT mode.

```
dsptranscotmode
REVERSE TRANSPONDER COT : disable
```

Related Commands	Command	Description
	cnftranscotmode	Configures the COT tone that VISM applies toward the TDM side.

dspvbdcodec

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

dspvbdcodec

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the upspeed codec used for VBD and the default payload type is displayed:

```
dspvbdcodec

VBD UpSpeed Codec:   G.711u
Payload Type         :   256
```

Related Commands

Command	Description
addrtpcon	Adds a static RTP VoIP trunking connection.
cnfdynamicpayload	Enables or disable the dynamic payload on the current VISM card.
cnfrtpcon	Modifies an existing static RTP VoIP trunking connection.
cnfvbdcodec	Configures the VBD upspeed codec.
dspdynamicepayload	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.

dspvbdmarconi

To display whether or not voiceband data (VBD) upspeed is configured upon detection of a dual tone, use the **dspvbdmarconi** command.

dspvbdmarconi

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that VBD upspeed is configured upon detection of a dual tone.

```
dspvbdmarconi
Marconi dual tone flag : enable
```

Related Commands

Command	Description
cnfvbdmarconi	Configures VBD upspeed upon detection of dual tone.

dspvbdpol

To display the VISM card level voiceband data (VBD) policies for fax/modem upspeed connection admission control (CAC) failure and fax/modem carrier loss for calls, use the **dspvbdpol** command.

dspvbdpol

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the VISM card level VBD policies are displayed:

```
dspvbdpol

Carrier Loss Policy:          upspeedCodec
CAC Rejection Policy:       maintain
```

Related Commands	Command	Description
	cnfvbdpol	Configures VISM card level VBD policies.

dspvccis

To display the associated values for the LCN, VCCI, address type, and address you configured, use the **dspvccis** command.

dspvccis

Syntax Description This command has no arguments or keywords.

Command Modes Switched AAL2 PVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following examples show the associated LCN, VCCI, and address you configured using the **cnfconvccis** command.

```
dspvccis
LCN  VCCI  Type  Addr
133  133   NSAP  737076634d47583100000000000000001000100
134  134   NSAP  737076634d47583100000000000000001000100
135  135   NSAP  737076634d47583100000000000000001000100
136  136   NSAP  737076634d47583100000000000000001000100
```

Related Commands	Command	Description
	cnfconvccis	Associates a VCCI and a remote address with an LCN.

dspvismdn

To display the domain name of the current VISM card, use the **dspvismdn** command.

dspvismdn

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the domain name of the current VISM card is displayed:

```
dspvismdn
DomainName:      cisco.com
```

Related Commands	Command	Description
	cnfvismdn	Configures the current VISM card domain name.

dspvismip

To display the IP address and subnet mask for the current VISM card, use the **dspvismip** command.

dspvismip

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the IP address and subnet mask of the current VISM card are displayed:

```
dspvismip

VismIpAddress: 209.165.200.224
NetMask:      255.255.255.255
VismBearerIpAddress: 209.165.200.225
BearerNetMask: 255.255.255.255
```

Related Commands	Command	Description
	cnfvismip	Configures the current VISM card IP address.

dspvismparam

To display VISM card configuration parameters, use the **dspvismparam** command.

dspvismparam

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the configuration parameters of the current VISM card are displayed:

```
dspvismparam

VISM mode:                voipSwitching
VISM features Bit Map:    0x5ac
CAC flag:                 enable
DS0s available:          192
Template number:         2
Percent of functional DSPs: 100
IP address:               64.68.2.1
Subnet mask               255.255.255.252
RTCP report interval:    1000 msec
RTCP receive multiplier: 3
RTP receive timer:       disable
ControlPrecedence/Tos:   0x60
BearerPrecedence/Tos:    0xa0
Aal2 muxing status:      disable
Tftp Server Dn            TFTPDOMAIN
Aggregate Clipping        enable
Aggregate Svc Bandwidth   0
Codec negotiation option  1
Profile negotiation option 1
VAD Duty Cycle           61
VAD Tolerance            100
CALEA:                   enable
```



Note

The DS0s available parameter value is applicable to AAL2 trunking operating mode only. The RTCP report interval, RTP receive timer, ControlPrecedence/Tos, and BearerPrecedence/Tos parameter values are applicable to VoIP switching/trunking operating mode only.

Related Commands

Command	Description
addcon	Adds a PVC connection between a VISM card and any SM or PXM card.
cnfcac	Enables or disables the CAC feature on a VISM card.
cnfcalea	Enables or disables the CALEA feature on the current VISM card.

Command	Description
cnfco4timer	Configures the bearer continuity test CO4 timer value.
cnfco4tmpl	Assigns a codec template to an entire VISM card.
cnfcon	Configures a connection between a VISM card and an MGX 8000 Series platform PXM card.
cnfvismip	Configures the current VISM card IP address.
cnfvismmode	Configures the initial operating mode for a VISM card.
dspscalea	Displays the CALEA feature configuration status of the current VISM card.
dspsco4timer	Displays the bearer continuity test CO4 timer value.

dspvoipparams

To display the VoIP switching/trunking operating mode parameters, use the **dspvoipparams** command.

dspvoipparams

Syntax Description This command has no arguments or keywords.

Command Modes VoIP switching/VoIP trunking, VoIP and AAL1 SVC

Usage Guidelines The following parameters are displayed when you use this command:

- DTMF relay status—Displays whether the CAS bits are configured to be relayed to the other endpoint.
- CAS bits transport status—Displays whether the DTMF tones are configured to be relayed to the other endpoint.
- VAD timer value—Displays the hangover time before silence compression is invoked.
- Event negotiation policy—None, proprietary, or all.
- Silence insertion descriptor (SID) payload type.

Examples

The following example shows that the VoIP switching/trunking operating mode parameters are displayed:

dspvoipparams

```
VoIP DTMF RELAY:           Off
VoIP CAS BITS TRANSPORT:  Off
VoIP VAD TIMER:           250
VoIP EVENT NEGOTIATE POL: proprietary
VoIP SID PAYLOAD TYPE:    13
```

Related Commands

Command	Description
cnfvoiptimerparam	Configures the holdover time for VAD before silence compression is activated.
cnfvoiptransparams	Configures the VoIP transportation parameters.

dspxcgcpbt

To display the default network type, virtual channel (VC) type, and connection type of the current VISM card, use the **dspxcgcpbt** command.

dspxcgcpbt

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the default network type, VC type, and connection type of the current VISM card are displayed:

```
dspxcgcpbt

Network Type:      IP
VC Type:           PVC
Conn Type:         not-applicable
```

Related Commands

Command	Description
cnfxgcpbt	Configures a default bearer type.

dspngxgpcalls

To display the xGCP call ID, connection ID, and endpoint name corresponding to each call agent established connection on the gateway, use the **dspngxgpcalls** command.

dspngxgpcalls

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines If more than one xGCP connection ID is associated with the same call ID, each connection ID appears on a separate line in the display.

Examples The following example shows that the xGCP call IDs, connection IDs, and endpoint names corresponding to all call agent established connections on the gateway are displayed:

```
dspngxgpcalls
xGCP Call ID                xGCP Connection ID  xGCP Endpoint Name
-----
                    5898886      358a      vism/T1-2/21
                    22263730     368d      vism/T1-2/23
                    35040677     338d      vism/T1-1/3
                    37233496     3588      vism/T1-1/5
                    44147097     358c      vism/T1-2/6
                    59925215     3685      vism/T1-2/14
                    86098952     3787      vism/T1-1/23
                    106425635     3689      vism/T1-1/22
                    127810066     348f      vism/T1-1/20
                    143146281     3789      vism/T1-1/8
                    251336169     3688      vism/T1-1/14
                    308712944     338f      vism/T1-2/12
                    332811049     3690      vism/T1-1/15
                    349719791     348b      vism/T1-1/12
                    368644231     3683      vism/T1-1/21
                    414134979     3589      vism/T1-1/13
                    431808675     348e      vism/T1-2/5
                    439592534     3687      vism/T1-1/6
                    449708369     338a      vism/T1-1/10
                    472992198     368b      vism/T1-1/7
                    667869345     3392      vism/T1-2/20
                    689149158     3584      vism/T1-2/13
                    731314813     368e      vism/T1-2/8
                    733047547     3686      vism/T1-2/22
                    840095617     368a      vism/T1-2/7
                    855162306     338c      vism/T1-1/18
                    889601897     368c      vism/T1-2/15
                    959868114     3395      vism/T1-1/4
```

Related Commands There are no related commands.

dspngxpcids

To display the logical channel number (LCN), channel identification number (CID), xGCP connection ID, endpoint name, and call ID corresponding to each call agent established AAL2 connection on the gateway, use the **dspngxpcids** command.

dspngxpcids

Syntax Description This command has no arguments or keywords.

Command Modes Switched AAL2 SVC, switched AAL2 PVC

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the xGCP connection CID configuration data for each call agent established AAL2 connection on the gateway is displayed:

dspngxpcids

LCN	CID	xGCP Connection ID	xGCP Endpoint Name	xGCP Call ID
132	10	27ba	vism/T1-1/2	346350363
132	14	24c2	vism/T1-1/6	219196705
132	15	24c6	vism/T1-1/7	3124232
132	16	24cb	vism/T1-1/8	71993004
132	17	26be	vism/T1-1/9	964845576
132	18	27bc	vism/T1-1/10	40023388
132	21	24bc	vism/T1-1/13	308615846
132	22	24c3	vism/T1-1/14	540211499
132	23	24c8	vism/T1-1/15	887014703
132	24	25c2	vism/T1-1/16	750350805
132	25	26bf	vism/T1-1/17	757994272
132	29	24bf	vism/T1-1/21	407192558
132	30	24c5	vism/T1-1/22	702316810
132	31	24c9	vism/T1-1/23	686445676
132	32	26bc	vism/T1-1/24	366717759
132	33	26c0	vism/T1-2/1	142297238
132	37	24c1	vism/T1-2/5	681759411
132	38	24c4	vism/T1-2/6	439143079
132	39	24c7	vism/T1-2/7	966681180
132	40	25c5	vism/T1-2/8	565100353
132	41	26c1	vism/T1-2/9	273412123
d32	9	26c3	vism/T1-1/1	705499200

Related Commands	Command	Description
	delxgcpcon	Deletes an xGCP connection specified by the xGCP connection identification number.
	dspngxpccon	Displays the attributes associated with a call agent established connection.

Command	Description
dspxgcpcns	Displays the xGCP connection ID, endpoint name, and call ID corresponding to each call agent established connection on the gateway.
dspxgcpndpts	Displays the xGCP endpoint names of all endpoints added with the addendpt command, or the SNMP equivalent.

dspngxpcnf

To display previously configured Simple Gateway Control Protocol (SGCP)/Media Gateway Control Protocol (MGCP) timeout and retransmission count values, use the **dspngxpcnf** command.

dspngxpcnf

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the SGCP/MGCP timeout and retransmission count values are displayed:

```
dspngxpcnf

MWD timeout :      10000
Request timeout :   500
Retry count:       3
```

Related Commands

Command	Description
cnfxgcpmwd	Configures the maximum waiting delay value used for sending an RSIP message to the call agent.
cnfxgcpretry	Configures VISM minimum and maximum request timeouts and retransmission attempts for communication with the associated call agent.

dspxcpcnt

To display the Simple Gateway Control Protocol (SGCP)/Media Gateway Control Protocol (MGCP) message statistics for a specified call agent, use the **dspxcpcnt** command.

dspxcpcnt <*ip address*>

Syntax Description

<i>ip address</i>	IP address, in dotted decimal format (nnn.nnn.nnn.nnn), of the call agent for which you want to display SGCP/MGCP message statistics.
-------------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the SGCP/MGCP message statistics of the call agent are displayed:

```
dspxcpcnt 209.165.200.204

IP                success msg    fail msg
-----
209.165.200.204  0              4
```

Related Commands

Command	Description
dspxcpcnts	Displays the SGCP/MGCP message statistics for all known call agents.

dspngxcpnts

To display the Simple Gateway Control Protocol (SGCP)/Media Gateway Control Protocol (MGCP) message statistics for all known call agents, use the **dspngxcpnts** command.

dspngxcpnts

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the SGCP/MGCP messages statistics for all known call agents are displayed:

```
dspngxcpnts

IP          success msg    fail msg
-----
2.2.2.2          0             4
```

Related Commands	Command	Description
	dspngxcpnt	Displays the SGCP/MGCP message statistics for a specified call agent.

dspngxcpcon

To display the attributes associated with a call agent established connection, use the **dspngxcpcon** command.

dspngxcpcon <connId> <DispLevel>

Syntax Description

<i>connId</i>	Connection identification number. Range is in hexadecimal numbers from (0–9, a–f).
<i>DispLevel</i>	Detail level of display. Values are <ul style="list-style-type: none"> • 1 = Abbreviated display • 2 = Detailed display

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the abbreviated level of attributes associated with the call agent identified by the connection identification number 4C5B are displayed:

```
dspngxcpcon 4c5b 1

*****
Attributes of Connection ID: 4c5b
*****
Call ID                               = C0011
Endpoint Name                         = vism/T1-1/1
Line Number                           = 1
Connection ID                         = 4c5b
Admitted Codec                        = PCMA
Admitted Pkt. period                  = 10 ms
Connection Mode                       = sendrecv
Echo Cancellation                     = FALSE
Type of Service                       = 0xa0
Network Type                          = IP
Remote Address Type                   = Invalid (0)
Continuity Test                       = FALSE
Loopback                              = FALSE
Local RTP Port                        = 49556
Remote RTP Port                       = 49544
Remote RTP Port Count                 = 1
Remote Address                        =64.68.18.1
MGC Domain Name                      = mgc1
MGC IP Address                       = Unknown
MGC UDP Port                          = 2427
Port in Notified Entity               = FALSE
Protocol Version                     = MGCP 0.1
Silence Suppression                   = FALSE
SID                                   = TRUE
VAD Timer                             = 250 ms
```

```

CAS Type = None
Triple Redundancy = TRUE
DTMF forwarding = FALSE
Local Connection Options (lco string) = L: e:off, s:off, a:PCMA

Remote Session Descriptor (sdp string) =
-----
v=0
o=- C0011 0 IN - -
s=-
c=IN IP4 64.68.18.1
t=0 0
m=audio 49544 RTP/AVP 8
-----

```

The following example shows that the detailed level of attributes associated with the call agent identified by the connection identification number 4C5B are displayed:

dspxcgpccon 4c5b 2

```

*****
Attributes of Connection ID: 4c5b
*****
Call ID = C0011
Endpoint Name = vism/T1-1/1
Line Number = 1
Connection ID = 4c5b
Admitted Codec = PCMA
Admitted Pkt. period = 10 ms
Connection Mode = sendrecv
Echo Cancellation = FALSE
Type of Service = 0xa0
Network Type = IP
Remote Address Type = Invalid (0)
Continuity Test = FALSE
Loopback = FALSE
Local RTP Port = 49556
Remote RTP Port = 49544
Remote RTP Port Count = 1
Remote Address = 64.68.18.1
MGC Domain Name = mgc1
MGC IP Address = Unknown
MGC UDP Port = 2427
Port in Notified Entity = FALSE
Protocol Version = MGCP 0.1
Silence Suppression = FALSE
SID = TRUE
VAD Timer = 250 ms
CAS Type = None
Triple Redundancy = TRUE
DTMF forwarding = FALSE
Local Connection Options (lco string) = L: e:off, s:off, a:PCMA
Remote Session Descriptor (sdp string) =
-----
v=0
o=- C0011 0 IN - -
s=-
c=IN IP4 64.68.18.1
t=0 0
m=audio 49544 RTP/AVP 8
-----
Timestamp Information:
Display Type = Originating
CRCX Ack (CRCX Ack - CRCX) = 10.000000000 ms

```

```

MDCX Command (MDCX - CRCX)           = 70.000000000 ms
MDCX Ack (MDCX Ack - CRCX)           = 80.000000000 ms
Time since the CRCX was received      = 2016.930000000 sec
(CRCX Command is not shown since it is used as reference)

Codec List: Codec[1]                  = PCMA
Pkt. Period List[1]: Pkt. Period[1]   = 10 ms
Pkt. Period Range[1] - Low            = 10 ms
Pkt. Period Range[1] - High           = 10 ms

LCO Codec List[1]                     = PCMA
LCO Pkt. Period Range - Low            = 0 ms
LCO Pkt. Period Range - High          = 0 ms
TDM Endpoint Connected to DSP Channel = TRUE
DSP Channel Connected to Network Endpoint = TRUE

```

Related Commands

Command	Description
delxgcpcon	Deletes an xGCP connection specified by the xGCP connection identification number.
dspxgpcids	Displays the LCN, CID, xGCP connection ID, endpoint name, and call ID corresponding to each call agent established AAL2 connection on the gateway.
dspxgcpcons	Displays the xGCP connection identification number, endpoint name, and call identification number corresponding to each call agent established connection on the gateway.
dspxgcpendpts	Displays the xGCP endpoint names of all endpoints added with the addendpt command, or the SNMP equivalent.

dspngxcpcons

To display the xGCP connection identification number, endpoint name, and call identification number corresponding to each call agent established connection on the gateway, use the **dspngxcpcons** command.

dspngxcpcons

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the xGCP connection identification number, endpoint name, and call identification number of each call agent established connection on the gateway are displayed:

```
dspngxcpcons

xGCP Connection ID  xGCP Endpoint Name  xGCP Call ID
-----
4c5b                vism/T1-1/1          C0011
4c5c                vism/T1-1/2          C0012
```

Related Commands	Command	Description
	delxgcpcon	Deletes an xGCP connection specified by the xGCP connection identification number.
	dspngxcpcons	Displays the LCN, CID, xGCP connection ID, endpoint name, and call ID corresponding to each call agent established AAL2 connection on the gateway.
	dspngxcpendpts	Displays the xGCP endpoint names of all endpoints added with the addendpt command, or the SNMP equivalent.

dspxcgcpdefpkg

To display the Simple Gateway Control Protocol (SGCP)/Media Gateway Control Protocol (MGCP) default package, use the **dspxcgcpdefpkg** command.

dspxcgcpdefpkg

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the SGCP/MGCP default package is displayed:

```
dspxcgcpdefpkg
```

```
Default package : T
```

Related Commands There are no related commands.

dspxcgcpdetailcnt

To display Simple Gateway Control Protocol (SGCP)/Media Gateway Control Protocol (MGCP) details of message statistics exchanged between VISM and a specified call agent, use the **dspxcgcpdetailcnt** command.

dspxcgcpdetailcnt <Ip_address>

Syntax Description	<i>Ip_address</i>	IP address, in dotted decimal format (nnn.nnn.nnn.nnn)., of the call agent for which you want to display detailed exchanged message statistics. It can be
Command Modes	VoIP switching/VoIP trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC	
Usage Guidelines	Follow standard CLI procedures for this command.	
Examples	<p>The following example shows that the SGCP/MGCP details of message statistics exchanged between VISM and the call agent identified by the IP address are displayed:</p> <pre>dspxcgcpdetailcnt 209.165.200.224 IP Address : 209.165.200.224 CRCX Count : 0 CRCX Fail Count : 0 MDCX Count : 0 MDCX Fail Count : 0 DLCX Received Count : 0 DLCX Received Fail Count : 0 DLCX Sent Count : 0 DLCX Sent Fail Count : 0 RQNT Count : 0 RQNT Fail Count : 0 Notify Count : 0 Notify Fail Count : 0 Audit Endpoint Count : 0 Audit Endpoint Fail Count : 0 Audit Connection Count : 0 Audit Connection Fail Count : 0 RSIP Count : 4 RSIP Fail Count : 4</pre>	
Related Commands	Command	Description
	dspxcgcpdetailcnts	Displays SGCP/MGCP details of message statistics exchanged between VISM and all known call agents.

dspxcgcpdetailcnts

To display Simple Gateway Control Protocol (SGCP)/Media Gateway Control Protocol (MGCP) details of message statistics exchanged between VISM and all known call agents, use the **dspxcgcpdetailcnts** command.

dspxcgcpdetailcnts

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the SGCP/MGCP details of message statistics exchanged between VISM and all known call agents are displayed:

```
dspxcgcpdetailcnts

IP Address                : 2.2.2.2
CRCX Count                : 0
CRCX Fail Count           : 0
MDCX Count                : 0
MDCX Fail Count           : 0
DLCX Received Count       : 0
DLCX Received Fail Count  : 0
DLCX Sent Count           : 0
DLCX Sent Fail Count      : 0
RQNT Count                : 0
RQNT Fail Count           : 0
Notify Count              : 0
Notify Fail Count         : 0
Audit Endpoint Count      : 0
Audit Endpoint Fail Count : 0
Audit Connection Count    : 0
Audit Connection Fail Count : 0
RSIP Count                : 4
RSIP Fail Count           : 4
```

Related Commands

Command	Description
dspxcgcpdetailcnt	Displays SGCP/MGCP details of message statistics exchanged between VISM and a specified call agent.

dspxcpendpt

To display the attributes associated with an endpoint added using the **addendpt** command, or the SNMP equivalent, use the **dspxcpendpt** command.

```
dspxcpendpt <line_number> <ds0_number>
```

Syntax Description

<i>line_number</i>	Line number of the endpoint for which you want to display the attributes. Range is 1–8.
<i>ds0_number</i>	DS0 number of the endpoint for which you want to display the attributes. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines (No signaling and CCS signaling) • 1–15 and 17–31 = E1 lines (CAS signaling)

Command Modes

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

Usage Guidelines

An endpoint added with the **addendpt** command is considered an xGCP endpoint even though a call agent established connection cannot be associated with the endpoint.

Examples

The following example shows that the statistics for the endpoint identified by line number 1, DS0 number 1 are displayed:

```
dspxcpendpt 1 1

*****
          Attributes of Endpoint Name: vism/T1-1/1
*****
Line Number                = 1
Endpoint Number            = 1
Endpoint Name              = vism/T1-1/1
Continuity Test            = FALSE
Echo Cancellation          = FALSE
Protocol Version           = Invalid Protocol
MGC IP Address             = Unknown
MGC UDP Port               = 0
Port in Notified Entity    = FALSE
Request ID                 = 0
Quarantine Handling        =
Requested Event List       =
Signal Event List         =
Accumulated Event List    =
Quarantined Event List    =
Detect Event List         =
Accumulated Dialed String  =
DSP Channel Connected to Network Endpoint = FALSE
Retry Count                = 3
Minimum Retry Timeout      = 500 ms
Maximum Retry Timeout      = 500 ms
```

Related Commands	Command	Description
	delxgcpcon	Deletes an xGCP connection specified by the xGCP connection identification number.
	dspxgcpids	Displays the LCN, CID, xGCP connection ID, endpoint name, and call ID corresponding to each call agent established AAL2 connection on the gateway.
	dspxgcpcon	Displays the attributes associated with a call agent established connection.
	dspxgcpcons	Displays the xGCP connection ID, endpoint name and call ID corresponding to each call agent established connection on the gateway.

dspngxpendptcons

To display the attributes of all connections associated with an endpoint added using the **addendpt** command, or the SNMP equivalent, use the **dspngxpendptcons** command.

```
dspngxpendptcons <line_number> <ds0_number> <dispLevel>
```

Syntax Description

<i>line_number</i>	Line number of the endpoint connections for which you want to display the attributes. Range is 1–8.
<i>ds0_number</i>	DS0 number of the endpoint connections for which you want to display the attributes. Ranges are <ul style="list-style-type: none"> • 1–24 = T1 lines • 1–31 = E1 lines (No signaling and CCS signaling) • 1–15 and 17–31 = E1 lines (CAS signaling)
<i>dispLevel</i>	Detail level of display. Values are <ul style="list-style-type: none"> • 1 = Abbreviated display. • 2 = Detailed display.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the attributes of all connections associated by the endpoint identified by line number 1, DS0 number 1 are displayed in the detailed format:

```
dspngxpendptcons 1 1 2

*****
Attributes of Connection ID:1
*****
Call ID = 634
Endpoint Name = vism/T1-1/1
Line Number = 1
Connection ID = 1
Admitted Codec = PCMU
Admitted Pkt. period = 10 ms
Connection Mode = sendrecv
Echo Cancellation = TRUE
Type of Service = 0xa0
Network Type = IP
Remote Address Type = Invalid (0)
Continuity Test = FALSE
Loopback = FALSE
Local RTP Port = 49152
Remote RTP Port = 49154
Remote RTP Port Count = 1
Remote Address = nn.nnn.n.n
```

```

Remote SDP                               = TRUE
MGC Domain Name                           = vsc-1
MGC IP Address                             = Unknown
MGC UDP Port                               = 2427
Port in Notified Entity                    = FALSE
Protocol Version                           = MGCP 0.1
Silence Suppression                        = TRUE
VAD Timer                                  = 250
CAS Forwarding Backhaul                    = 0
Triple Redundancy                          = 1
DTMF forwarding                            = 0
Local Connection Options (lco string)      = L:e:on
Remote Session Descriptor (sdp string)     =
Timestamp Information:
Display Type                               = Terminating
CRCX Ack (CRCX Ack - CRCX)                = 10.000000000 ms
Time since the CRCX was received           = 210.280000000 sec
(CRCX Command is not shown since it is used as reference)

Codec List:Codec[1]                       = PCMU
  Pkt. Period List[1]:Pkt. Period[1]      = 10 ms
  Pkt. Period Range[1] - Low              = 10 ms
  Pkt. Period Range[1] - High             = 10 ms
Codec List:Codec[2]                       = PCMA
  Pkt. Period List[2]:Pkt. Period[1]      = 10 ms
  Pkt. Period Range[2] - Low              = 10 ms
  Pkt. Period Range[2] - High             = 10 ms
Codec List:Codec[3]                       = CCD
  Pkt. Period List[3]:Pkt. Period[1]      = 10 ms
  Pkt. Period Range[3] - Low              = 10 ms
  Pkt. Period Range[3] - High             = 10 ms
LCO Pkt. Period Range - Low                = 0 ms
LCO Pkt. Period Range - High               = 0 ms
TDM Endpoint Connected to DSP Channel      = TRUE
DSP Channel Connected to Network Endpoint  = TRUE

```

Related Commands

Command	Description
delxgcpcon	Deletes an xGCP connection specified by the xGCP connection identification number.
dspxgpcids	Displays the LCN, CID, xGCP connection ID, endpoint name, and call ID corresponding to each call agent established AAL2 connection on the gateway.
dspxgcpcon	Displays the attributes associated with a call agent established connection.
dspxgcpcons	Displays the xGCP connection ID, endpoint name and call ID corresponding to each call agent established connection on the gateway.
dspxgcpndpt	Displays the xGCP endpoint names corresponding to each endpoint number.
dspxgcpndpts	Displays the xGCP endpoint name corresponding to each endpoint added using the addndpt command or the SNMP equivalent.

dspngxgpendpts

To display the xGCP endpoint names corresponding to each endpoint which has been added using the `addendpt` command, or the SNMP equivalent, use the **dspngxgpendpts** command.

dspngxgpendpts

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

The xGCP endpoint name is displayed with this command regardless of whether there are call agent established connections associated with the endpoint. If there are call agent established connections associated with the endpoint, the corresponding xGCP connection identification number and call identification number appear on the same line as the endpoint name.

Examples

The following example shows that the endpoint names that correspond to each endpoint are displayed:

```
dspngxgpendpts
```

```
xGCP Endpoint Name  xGCP Connection ID  xGCP Call ID
-----
vism/T1-1/1         4c5b                 C0011
vism/T1-1/2         4c5c                 C0012
vism/T1-1/3
vism/T1-1/4
vism/T1-1/5
vism/T1-1/6
vism/T1-1/7
vism/T1-1/8
vism/T1-1/9
vism/T1-1/10
vism/T1-1/11
vism/T1-1/12
vism/T1-1/13
vism/T1-1/14
vism/T1-1/15
vism/T1-1/16
vism/T1-1/17
vism/T1-1/18
vism/T1-1/19
vism/T1-1/20
vism/T1-1/21
vism/T1-1/22
vism/T1-1/23
vism/T1-1/24
```

Related Commands

Command	Description
dspngxgpendpt	Displays the xGCP endpoint names corresponding to each endpoint number.

dspxgcperrcnt

To display the Simple Gateway Control Protocol (SGCP)/Media Gateway Control Protocol (MGCP) error counts for both unsupported protocol versions and unrecognized packets, use the **dspxgcperrcnt** command.

dspxgcperrcnt

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the xGCP error counts for unsupported protocol versions and unrecognized packets are displayed:

```
dspxgcperrcnt
```

```
Number of msg. for an unsupported protocol version :    0  
Number of unrecognized packets :    0
```

Related Commands There are no related commands.

dspxcgcpinterops

To display the status of the Session Description Protocol (SDP) OST interoperability feature, use the **dspxcgcpinterops** command.

dspxcgcpinterops

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the SDP OST interoperability status is displayed:

```
dspxcgcpinterops
SDP OST flag: enable
```

Related Commands	Command	Description
	cnfxgcpinteropsdpost	Enables or disables the SDP OST interoperability feature.

dspngxgcpIncons

To display the DS0s with active xGCP connections, the number of connections for each line, and the number of active calls for each card, use the **dspngxgcpIncons** command.

dspngxgcpIncons

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the DS0s with active xGCP connections, the number of connections for each line, and the number of active calls for each card are displayed:

```
dspngxgcpIncons

Connections Active Line 1: 0x00bee89e      (15)
Connections Active Line 2: 0x00b5bfc5      (16)
Connections Active Line 3: 0x0015387c      (11)
Connections Active Line 4: 0x00000000      (0)
Connections Active Line 5: 0x00000000      (0)
Connections Active Line 6: 0x00000000      (0)
Connections Active Line 7: 0x00000000      (0)
Connections Active Line 8: 0x00000000      (0)
Total Active Connections: 42
```



Note

The hexadecimal digits indicate the DS0s on which the connections exist. The parenthetical numbers indicate the total number of active DS0s on a line. The last line of the displayed data indicates the total number of active connections.

Related Commands

Command	Description
delxgcpcon	Deletes an xGCP connection specified by the xGCP connection identification number.
dspxgpcids	Displays the LCN, CID, xGCP connection ID, endpoint name, and call ID corresponding to each call agent established AAL2 connection on the gateway.
dspxgcpcon	Displays the attributes associated with a call agent established connection.
dspxgcpcons	Displays the xGCP connection ID, endpoint name and call ID corresponding to each call agent established connection on the gateway.
dspxgcpndpt	Displays the attributes associated with an endpoint.
dspxgcpndptcons	Displays the attributes of all connections associated with an endpoint.
dspxgcpndpts	Displays the xGCP endpoint names of all endpoints added with the addendpt command, or the SNMP equivalent.

dspxcgcppeers

To display all the User Datagram Protocol (UDP) peer ports used by the Simple Gateway Control Protocol (SGCP) or the Media Gateway Control Protocol (MGCP), use the **dspxcgcppeers** command.

dspxcgcppeers

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the UDP ports used by xGCP are displayed:

```
dspxcgcppeers
mgcNumber      protocolNumber  portNumber
-----
      1              1           2064
      1              2           2427
```

Related Commands	Command	Description
	cnfxgcppeer	Configures the UDP port number used to send gateway-initiated messages to the call agent.

dspxcppersistevts

To display all active persistent xGCP events, use the **dspxcppersistevts** command.

dspxcppersistevts

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the active persistent xGCP events are displayed:

```
dspxcppersistevts
1          1/hd
2          1/hu
3          r/co4
```

Related Commands

Command	Description
addxcppersistevt	Adds persistent xGCP events.
delxcppersistevt	Deletes a persistent xGCP event.

dspxcpport

To display the local User Datagram Protocol (UDP) port number used by the Simple Gateway Control Protocol (SGCP) or the Media Gateway Control Protocol (MGCP), use the **dspxcpport** command.

dspxcpport

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the UDP port number used by SGCP/MGCP is displayed:

```
dspxcpport
xgcpPortNumber: 2427
```

Related Commands	Command	Description
	cnfxgcppeer	Configures the UDP port number used to send gateway-initiated messages to the call agent.

dspxgcpretry

To display the current xGCP retransmission parameters—retry (retransmission) count, minimum timeout value, and maximum timeout value—use the **dspxgcpretry** command.

dspxgcpretry

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows that the current xGCP retransmission parameters are displayed:

```
dspxgcpretry
Min Request Timeout :    500
Retry Count         :     3
Max Request Timeout :    500
```

Related Commands	Command	Description
	cnfxgcpretry	Configures VISM minimum and maximum request timeouts and retransmission attempts for communication with the associated call agent.

Help

To display, in an alphabetical list, all commands associated with the current VISM card, use the **Help** command.

Help

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

This command is case sensitive—**Help**.



Note

You cannot use this command to obtain details about a specific command.

Examples

The following example shows that all commands associated with the current VISM card are displayed in an alphabetical list.



Note

The list displayed in this example is a partial list—your results return a greater number of associated commands.

Help

```
?
addcasvar
addccs
addcid
.
.
.
dspxgcpcpersistevts
dspxgcpcport
dspxgcpretry
Help
.
.
.
tstcon
tstdelay
upcon
version
```

Related Commands

Command	Description
?	Displays some or all commands associated with the current card.

memShow

To display the system memory partition blocks and statistics, use the **memShow** command.

memShow

Syntax Description This command has no arguments or keywords.

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

Usage Guidelines Follow standard CLI procedures for this command.

Examples The following example shows the current system partitions and statistics:

```
memShow

status  bytes      blocks  avg block  max block
-----  -
current
  free  11598432      240      48326  11556160
  alloc 4071280      12151      335      -
cumulative
  alloc 11297856   147028      76      -
```

Related Commands There are no related commands.

pinglndsp

To display the digital signal processor (DSP) configuration data and status for all endpoints on a specified line, use the **pinglndsp** command.

pinglndsp <line_num>

Syntax Description

<i>line_num</i>	Line number for the DSPs you want to display configuration data and status. Range is 1–8.
-----------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the DSP configuration data and status for the VISM card line 1 is displayed:

```
pinglndsp 1
```

Endpoint	Ds0#	DSP health
1	1	OK
2	2	OK
3	3	OK
4	4	OK
5	5	OK
6	6	OK
7	7	OK
8	8	OK
9	9	OK
10	10	OK
11	11	OK
12	12	OK
13	13	OK
14	14	OK
15	15	OK
16	16	OK
17	17	OK
18	18	OK
19	19	OK

Related Commands

Command	Description
dsp	Displays the DSP information for a specified VISM card line.

rrtcon

To trigger the re-routing of a connection between two different switches, use the **rrtcon** command.

rrtcon *<channel number>*

Syntax	<i>channel number</i>	LCN number. Range is 131–510.
Description		
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking	
Usage Guidelines	This command operates only on master endpoints and on connections between two different switches.	
Examples	<p>The following example shows re-routing the master endpoint 131.</p> <pre>rrtcon 131</pre>	
Related Commands	There are no related commands.	

setfaxmodemtrace

To enable or disable fax/modem trace, use the **setfaxmodemtrace** command.

setfaxmodemtrace <*fax_modem_trace*>

Syntax	<i>fax_modem_trace</i>	Value to enable or disable fax modem trace. <ul style="list-style-type: none"> • 0 = Off • 1 = On
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking	
Usage Guidelines	Follow standard CLI procedures for this command.	
Examples	<p>The following example turns off fax/modem trace.</p> <pre>setfaxmodemtrace 1</pre>	
Related Commands	Command	Description
	dspfaxmodemtrace	Displays whether or not fax/modem trace is turned on.

svccntsreset

To set all switched virtual connection (SVC) counters to zero and update the statistic collection start time, use the **svccntsreset** command.

svccntsreset

Syntax Description This command has no arguments or keywords.

Command Modes AAL1 switching, switched AAL2 SVC, and VoIP and AAL1 SVC

Usage Guidelines Follow standard CLI procedures when using this command.

Examples This command does not return any output.

```
svccntsreset
```

Related Commands There are no related commands.

tstcon

To test a specified connection, use the **tstcon** command.

```
tstcon <LCN>
```

Syntax Description	<i>LCN</i> Logical channel number of the connection to be tested. Range is 131–510.				
Command Modes	VoIP switching/VoIP trunking, AAL2 trunking, AAL1 switching, switched AAL2 SVC, switched AAL2 PVC, VoIP and AAL1 SVC, VoIP trunking/AAL2 trunking				
Usage Guidelines	Follow standard CLI procedures for this command.				
Examples	<p>The following example shows that the connection identified by logical channel number 131 is tested:</p> <pre>tstcon 131 test type is..... 1 TestCon in progress. TestCon Passed.</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>tstdelay</td> <td>Tests the delay on a specified connection.</td> </tr> </tbody> </table>	Command	Description	tstdelay	Tests the delay on a specified connection.
Command	Description				
tstdelay	Tests the delay on a specified connection.				

tstdelay

To test the delay on a specified connection, use the **tstdelay** command.

tstdelay <LCN>

Syntax Description

<i>LCN</i>	Logical channel number of the connection for which to test the delay. Range is 131–510.
------------	---

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the delay for the connection identified by logical channel number 131 is tested:

```
tstdelay 131
test type is..... 2

TestDelay in progress.

TestDelay Passed with 327 us.
```

Related Commands

Command	Description
tstcon	Tests a specified connection.

upcon

To configure a specified connection up, allowing traffic to be passed to the specified connection, use the **upcon** command.

```
upcon <LCN>
```

Syntax Description

<i>LCN</i>	Logical channel number. Range is 131–510.
------------	---

Command Modes

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

Usage Guidelines

When a channel is brought up from down with the **upcon** command, a vismChanConUp trap is sent.

Examples

The following example shows that connection 189 is configured to be administratively up and traffic can be passed to it:

```
upcon 189
```

Related Commands

Command	Description
dncon	Configures a specified connection down, preventing traffic from being passed to it.
dspon	Displays the parameters for a specified channel.

version

To display version-related data—such as firmware version, operating system kernel version, date of the software build—for the current VISM/VISM-PR card, use the **version** command.

version

Syntax Description

This command has no arguments or keywords.

Command Modes

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

Usage Guidelines

Follow standard CLI procedures for this command.

Examples

The following example shows that the version-related data for the current VISM card is displayed:

```

version

PXM1E_SJ.1.28.VISM8.a > version
**** Cisco Systems. MGX VISM Card ****
  Firmware Version      = 003.002.000.000 (NO CALEA)
  Backup Boot version = VI8_BT_3.1.01
  Xilinx Firmware version = 10/ 2/1998
  DSPCOM FPGA version   = 3/ 6/2003
  DSPM C549 Template 1 FW Details:
    Major Release      = 3
    Minor Release      = 6
    Build number       = 25
  DSPM C549 Template 2 FW Details:
    Major Release      = 3
    Minor Release      = 6
    Build number       = 25
  DSPM C549 Template 3 FW Details:
    Major Release      = 3
    Minor Release      = 6
    Build number       = 25
  DSPM C549 Template 4 FW Details:
    Major Release      = 3
    Minor Release      = 6
    Build number       = 25
  DSPM C5421 Template 1, 2, and 3 FW Details:
    Major Release      = 3
    Minor Release      = 6
    Build number       = 25
  DSPM C5421 Template 4 FW Details:
    Major Release      = 3
    Minor Release      = 6
    Build number       = 25
  DSPM C5421 Template 5 FW Details:
    Major Release      = 3
    Minor Release      = 6
    Build number       = 25
  DSPM C549 E1 ECAN FW Details:

```

```
Major Release = 9
Minor Release = 4
Build number = 0
DSPM C549 T1 ECAN FW Details:
Major Release = 9
Minor Release = 4
Build number = 0
DSPM C5421 T1 & E1 ECAN FW Details:
Major Release = 9
Minor Release = 5
Build number = 1
Made by = swtools
VxWorks (for R5k PDC) version 5.3.1.
Kernel: WIND version 2.5.
Made on Jun 18 2003, 15:41:03.
Boot line:
```

**Note**

The display from this command is different than the one that is shown here if you are using CALEA.

Related Commands

There are no related commands.

■ version



Troubleshooting Tips

Use the following troubleshooting tools and techniques to assist you in maintaining your VISM card:

- [“VISM Card LEDs” section on page 8-1](#)
- [“VISM and PXM Display, Log, and Diagnostic Loopback Path CLI Commands” section on page 8-2](#)
- [“VISM Alarms” section on page 8-5](#)
- [“UNIX Snoop Trace Tool” section on page 8-5](#)
- [“Symptoms and Solutions” section on page 8-5](#)

VISM Card LEDs

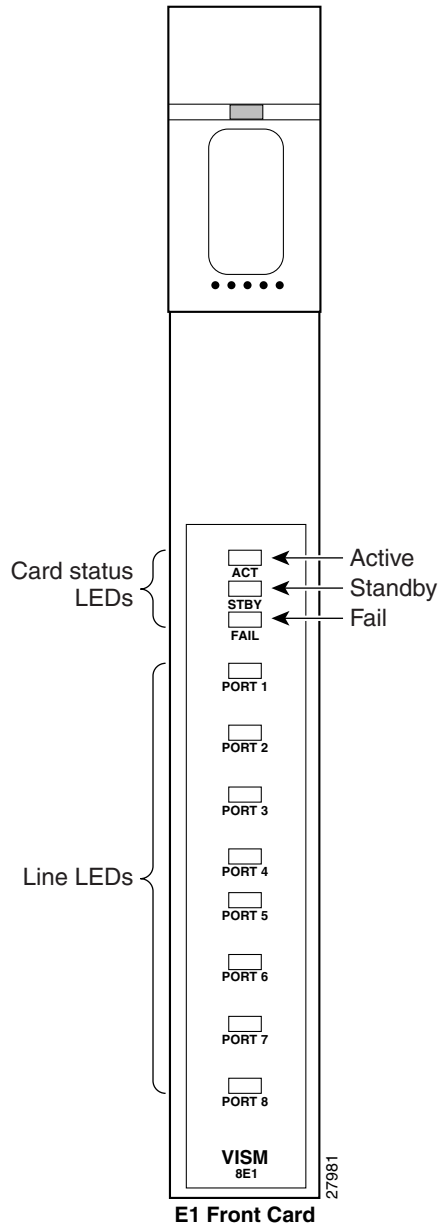
The VISM card uses the following three card status LEDs (see [Figure 8-1](#)) to indicate certain states:

- ACT—Green indicates the active state.
- STBY—Orange, or blinking orange, indicates one of the following:
 - VISM is in the standby state.
 - VISM is in the mismatch state.
 - VISM card DSPs are currently involved in the VISM card bootup.
- FAIL—Red indicates the failure state, or certain stages of the bootup process.

The VISM card uses eight line status LEDs (see [Figure 8-1](#)) to indicate the following states of the eight T1 or E1 ports on the VISM back card:

- Green—A line has been added and there is no alarm on that line.
- Orange—A line has been added and there is a yellow alarm condition on the line.
- Red—A line has been added and there is one of the following conditions on the line:
 - Loss of signal (LOS) (red alarm condition)
 - Loss of frame (LOF)
 - Alarm indication signal (AIS)

Figure 8-1 VISM Front Card LEDs



VISM and PXM Display, Log, and Diagnostic Loopback Path CLI Commands

You can use the following commands to troubleshoot your VISM card:

- The VISM **dspecd** command
- The PXM **dsplog** command
- PXM diagnostic loopback commands

**Note**

Refer to the Cisco MGX 8000 Series platform command reference guides for more information on PXM commands.

VISM Display Card CLI Command

Use the VISM **dspcd** command to display the following types of information about your current VISM card:

- State of the VISM card
- Type of VISM card
- Version number and part numbers
- Daughter card version numbers and part numbers

The following example shows the results of a typical **dspcd** command:

```
NODENAME.1.3.VISM8.a > dspcd
ModuleSlotNumber:      17
  FunctionModuleState:  Active
  FunctionModuleType:   VISM-8T1
  FunctionModuleSerialNum: SAK0331006P
  FunctionModuleHWRev:  0.0
  FunctionModuleFWRev:  2.0.0_11Nov01_2
  FunctionModuleResetReason: ?
  LineModuleType:      LM-RJ48-8T1
  LineModuleState:     Present
  mibVersionNumber:    21
  configChangeTypeBitMap: CardCnfChng, LineCnfChng
  pcb part no - (800 level): 800-04399-01
  pcb part no - (73 level): 73-03618-01
  Fab Part no - (28 level): 28-02791-01
  PCB Revision:        08

Daughter Card Information:
  Daughter Card Serial Number: SAK0331003P
  pcb part no - (73 level): 73-03722-01
  Fab Part no - (28 level): 28-02905-01
  PCB Revision:        04
```

PXM Display Log CLI Command

Use the PXM **dspllog** command to display useful information for troubleshooting your VISM card. The log is maintained by the PXM. A VISM entry is displayed in the log in the following format:

- Date and time of the log
- Slot number of the VISM card from which a message is logged
- The process on the VISM card that logged that message
- Severity of the message:
 - 1 = Fatal error which causes the card to reboot
 - 6 = All other errors
- A log message description

The following example shows the results of a typical **dsplog** command:

```
09/09/2001-02:09:01 03 cam VISM-6-9157
VISM got time from PXM
```

PXM Diagnostic Loopback Path CLI Commands

The VISM-8T1 and VISM-8E1 cards provide the capability for creating loopback paths for diagnostic purposes. Use the VISM and PXM diagnostic loopback CLI commands to troubleshoot your VISM cards. The following loopback configurations are possible:

- Local line loopback. Use the PXM **addlnloop** command to enable local line loopback on a line-by-line basis. Use the PXM **dellnloop** command to disable local line loopback.
- Remote line loopback. The PXM **cnfbert** command is a T1/E1 diagnostic test package which includes some loopback tests.

Use the BERT and loopback functions to test the integrity of T1 and E1 lines. You can use the PXM **cnfbert** command on the PXM to perform the following actions:

- Run BERT on a per-line basis on the VISM card.
- Put a VISM line on a TDM side loopback.
- Put a VISM line on a network side loopback.
- Cause the VISM to put test equipment residing on the far side into loopback.
- OAM loopback through the CPU toward the network (per VC). This loopback is enabled automatically; no PXM or VISM CLI commands are required.
- DS0 loopback, at the compression DSP toward the TDM side. Use the PXM **addendptloop** command to enable DS0 loopback on a DS0-by-DS0 basis. Use the PXM **delendptloop** command to disable DS0 loopbacks.
- VC remote loopback. Use the PXM **addconloop** command to enable VC remote loopbacks. Use the PXM **delconloop** command to disable remote loopbacks.

PXM1E and PXM 45 Display CLI Commands

Refer to the *Cisco MGX 8830, MGX 8850 (PXM45 and PXM1E), and Cisco MGX 8950 Command Reference, Release 4* for information on the following PXM1, PXM1E, and PXM45 card display commands.

VISM Alarms

Table 8-1 describes VISM T1 and E1 card alarms.

Table 8-1 VISM T1 and E1 Card Alarms

Error	Alarm Type	Down stream (ATM side)	Up Stream (TDM side)	Comments
Link Failure—receive LOS ¹	LOS ¹	AIS ²	RAI ³	RAI ³ returned on the transmit line.
Receive RAI ³	Yellow	RAI ³	None	—
Receive LOF ⁴	—	AIS ²	RAI ³	RAI ³ returned on the transmit line.
Receive AIS ²	AIS ²	AIS ²	RAI ³	RAI ³ returned on the transmit line.

1. LOS = Loss of service.
2. AIS = Alarm indication signal.
3. RAI = Remote alarm indicator.
4. LOF = Loss of frame.

Refer to T1.403 for DS1 and G.704 for E1 definitions of alarm states. Alarms are propagated to the remote end over the ATM network in accordance with ATM specifications.

UNIX Snoop Trace Tool

Use the UNIX snoop trace tool to assist in diagnosing a problem. The **snoop** command can determine if there is any activity between the VISM and the call agent. The following example shows the command and a typical resulting terminal display:

```
snoop -x 42 -ta <ip address of CA> port <udp port of CA>
E.g snoop -x 42 -ta vismvsc1 port 2427
```

Symptoms and Solutions

This section includes possible solutions to the following possible symptoms:

- [“VISM Card Did Not Become Active” section on page 8-6](#)
- [“T1/E1 Configuration Mismatch” section on page 8-6](#)
- [“DSP Download Failure” section on page 8-7](#)
- [“VISM Front Card/Back Card Mismatch” section on page 8-8](#)
- [“Cannot Use the cc Command to Access a VISM Card” section on page 8-9](#)
- [“VISM Card Resets Intermittently” section on page 8-9](#)
- [“VISM Card Does Not Accept a Firmware Download” section on page 8-9](#)
- [“Echo Is Heard on a Voice Call” section on page 8-9](#)
- [“VISM Card LEDs Are Not Lighted” section on page 8-9](#)

VISM Card Did Not Become Active

Investigate the following possible causes for a VISM card that does not become active:

- An E1 card is inserted in a slot where a T1 card was present, or a T1 card is inserted in a slot where an E1 card was present, resulting in configuration mismatch.
- The minimum number (five) of DSPs failed to download.
- A front card type does not match the back card type—if the front card is T1 and the back card is E1, or the front card is E1 and the back card is T1.
- The VISM card MIB image version does not match the PXM disk MIB image version.

T1/E1 Configuration Mismatch

Use the PXM **dspecds** command to identify a T1/E1 configuration mismatch, as follows:

```
NODENAME.1.7.PXM.a > dspecds
Slot  CardState  CardType  CardAlarm  Redundancy
-----
1.1   Empty
1.2   Empty
1.3   Empty
1.4   Empty
1.5   Mismatch    VISM-8E1  Clear
1.6   Empty
1.7   Active      PXM1-OC3  Clear
1.8   Empty
1.9   Empty
1.10  Empty
1.11  Empty
1.12  Empty
1.13  Empty
1.14  Empty
1.15  Empty
1.16  Empty
1.17  Empty
1.18  Empty
1.19  Empty
```

Use the PXM **dspsmcnf** command to identify a T1/E1 configuration mismatch, as follows:

```
NODENAME.1.7.PXM.a > dspsmcnf
slot      Card      Rate      Channel      MIB      Feature
No.       Type      Control   ized         IMA      MULTRKS   Version   Bits
-----
1         <-----> No configuration file exist for this slot <-----
2         <-----> No configuration file exist for this slot <-----
3         VISM-8T1  Off       Off          Off      Off       20       0x0
4         <-----> No configuration file exist for this slot <-----
5         VISM-8T1  Off       Off          Off      Off       20       0x0
6         <-----> No configuration file exist for this slot <-----
9         <-----> No configuration file exist for this slot <-----
10        <-----> No configuration file exist for this slot <-----
11        <-----> No configuration file exist for this slot <-----
12        <-----> No configuration file exist for this slot <-----
13        <-----> No configuration file exist for this slot <-----
14        <-----> No configuration file exist for this slot <-----
17        <-----> No configuration file exist for this slot <-----
18        <-----> No configuration file exist for this slot <-----
19        <-----> No configuration file exist for this slot <-----
```

```

20 -----> No configuration file exist for this slot <-----
21 -----> No configuration file exist for this slot <-----
22 -----> No configuration file exist for this slot <-----
25 -----> No configuration file exist for this slot <-----
26 -----> No configuration file exist for this slot <-----
27 -----> No configuration file exist for this slot <-----
28 -----> No configuration file exist for this slot <-----
29 -----> No configuration file exist for this slot <-----
30 -----> No configuration file exist for this slot <-----

```

Use the PXM **dsplog** command to show a card mismatch log entry, logged by VISM card on slot 5, as follows:

```

09/09/2001-00:01:47 05 dsplog VISM-6-9025
VISM going to standby : Config. Mismatch between PXM and VISM

```

Use the VISM **dspecd** command to display the following information:

```

NODENAME.1.5.VISM8.s > dspecd
ModuleSlotNumber:      5
FunctionModuleState:   Mismatch
FunctionModuleType:    VISM-8E1
FunctionModuleSerialNum: CAB12345678
FunctionModuleHWRev:   0.13
FunctionModuleFWRev:   2.2.10g.pm
FunctionModuleResetReason: WatchDog timeout reset
LineModuleType:        Missing
LineModuleState:       Not Present
mibVersionNumber:     20
configChangeTypeBitMap: CardCnfChng, LineCnfChng
cardIntegratedAlarm:   Clear
pcb part no - (800 level): 800-03530-01
pcb part no - (73 level): 73-03021-01
Fab Part no - (28 level): 28-02492-01
PCB Revision:         01
Daughter Card Information:
Daughter Card Serial Number: CAB12345678
pcb part no - (73 level): 73-03022-01
Fab Part no - (28 level): 28-02493-01
PCB Revision:         01 value = 34 = 0x22 = ''

```

DSP Download Failure

Use the PXM **dsplog** command to determine if the minimum number (five) of the DSPs failed to download. The terminal displays results similar to the following:

```

NODENAME.1.7.PXM.a > dsplog
01/01/2001-00:02:10 05 tDspmDl VISM-6-9193
DSPM task errors      : 6 DSPs failed to download

```

If the number of DSPs (six in the above case) is greater than five, the card will fail to be in the active state. If this condition happens repeatedly, replace the card.

Use the following PXM **dspecds** command, and the results, to determine the current state of VISM DSPs:

```

NODENAME.1.7.PXM.a > dspecds
Slot CardState CardType CardAlarm Redundancy
---- -
1.1 Empty Clear
1.2 Empty Clear
1.3 Empty Clear

```

```

1.4 Empty Clear
1.5 Failed VISM-8E1 Clear
1.6 Empty Clear
1.7 Active PXM1-OC3 Clear
1.8 Empty Clear
1.9 Empty Clear
1.10 Empty Clear
1.11 Empty Clear
1.12 Empty Clear
1.13 Empty Clear
1.14 Empty Clear
1.15 Empty Clear
1.16 Empty Clear
1.17 Empty Clear
1.18 Empty Clear
1.19 Empty Clear

```

VISM Front Card/Back Card Mismatch

Use the following PXM **dsplog** command to investigate a possible VISM front card/back card mismatch:

```

NODENAME.1.7.PXM.a > dsplog
01/01/2001-00:02:24 05 cmm VISM-6-9025
VISM going to standby : Config. Mismatch between ASC and VISMV
01/01/2001-00:02:24 05 cmm VISM-6-9023
Mismatch Backcard
01/01/2001-00:02:24 05 cmm VISM-6-9023
Mismatch Backcard

```

In a mismatch condition, use the PXM **dspcds** command to display the following type of information:

```

NODENAME.1.7.PXM.a > dspcds
Slot CardState CardType CardAlarm Redundancy
---- -
1.1 Empty Clear
1.2 Empty Clear
1.3 Empty Clear
1.4 Empty Clear
1.5 Mismatch VISM-8E1 Clear
1.6 Empty Clear
1.7 Active PXM1-OC3 Clear
1.8 Empty Clear
1.9 Empty Clear
1.10 Empty Clear
1.11 Empty Clear
1.12 Empty Clear
1.13 Empty Clear
1.14 Empty Clear
1.15 Empty Clear
1.16 Empty Clear
1.17 Empty Clear
1.18 Empty Clear
1.19 Empty Clear

```

Use the VISM **dspcd** command to display the following types of information:

```

NODENAME.1.5.VISM8.s > dspcd
ModuleSlotNumber: 5
FunctionModuleState: Mismatch
FunctionModuleType: VISM-8E1
FunctionModuleSerialNum: CAB0246014P
FunctionModuleHWRev: 0.0

```



```

FunctionModuleFWRev:      2.2.10g.pm
FunctionModuleResetReason: Reset by ASC from Cell Bus
LineModuleType:          LM-RJ48-8T1
LineModuleState:         Invalid
mibVersionNumber:        20
configChangeTypeBitMap:  CardCnfChng, LineCnfChng
cardIntegratedAlarm:     Clear
pcb part no - (800 level): 800-04399-01
pcb part no - (73 level): 73-03618-01
Fab Part no - (28 level): 28-02791-01
PCB Revision:            05
Daughter Card Information:
Daughter Card Serial Number: CAB024601FF
pcb part no - (73 level): 73-03722-01
Fab Part no - (28 level): 28-02905-01
PCB Revision:            02 value = 34 = 0x22 = ''

```

Cannot Use the cc Command to Access a VISM Card

Use the PXM `dspecds` command to verify if the VISM card is in the active or standby state. If the VISM card is not in the active or standby state, you cannot use the `cc` command to access the card.

VISM Card Resets Intermittently

Investigate the following possibilities to determine why the VISM card is resetting intermittently:

- Bad hardware device on the card. Replace any corrupt hardware.
- Daughter card is not attached correctly to the VISM card. As a result, the VISM card is not able to maintain its abilities. Ensure that the daughter card is making electrical contact to the motherboard, and is mechanically secure.

VISM Card Does Not Accept a Firmware Download

There must be a VISM card in the slot to which firmware is being downloaded. Ensure that the VISM card is seated in the slot, and that it is making electrical contacts to the backplane.

The card must be in either the active or boot state. Confirm this is the case and try again.

Echo Is Heard on a Voice Call

Ensure that the call has the ECAN feature enabled. If the echo delay is longer than the provision tail length, ECAN does not work. Use the VISM `cnfecantail` command to configure a larger value for the tail length.

VISM Card LEDs Are Not Lighted

The VISM card may not be inserted completely in the slot. Ensure that the VISM card is seated in the slot correctly, with top and bottom half portions of the VISM card making electrical contact with the backplane.

Firmware Does Not See the Card Insert Bit Status As Set

This symptom can also indicate a bad VISM card or bad MGX slot.



VISM/VISM-PR Card Clocking Options

An MGX 8000 Series platform, consisting of PXM and VISM cards, should have one primary clocking source. To avoid conflicts and to ensure proper operation, the settings for clocking options in both card types are considered together. You must use one of the following primary clocking source options:

- PXM1, PXM1E, and PXM45 cards—Provide clocking for all VISM/VISM-PR cards in the chassis.
- VISM card—Provides clocking for the PXM1, which then provides clocking to the entire chassis.
- VISM-PR card—Provides clocking for the PXM1, PXM1E or PXM45 card, which then provides clocking to the entire chassis.

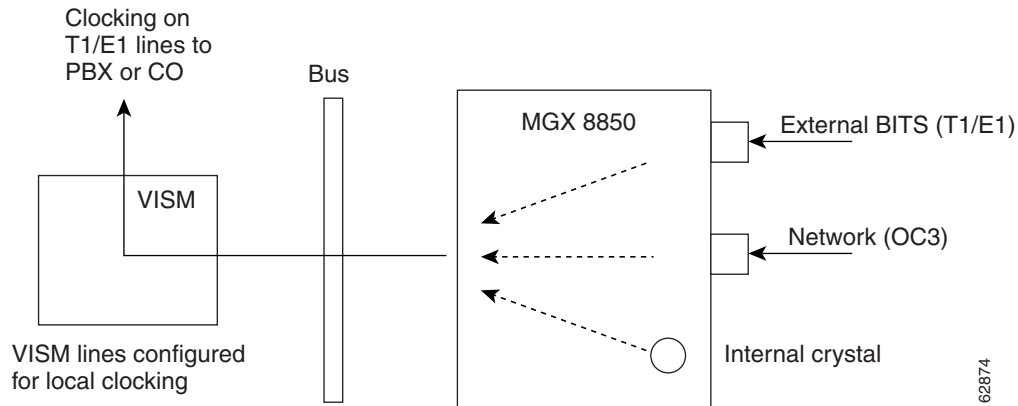
This section contains the following topics;

- [PXM1 Card as Primary Clocking Source, page A-2](#)
- [VISM Card as Clocking Source, page A-3](#)
- [VISM-PR Card as Clocking Source, page A-5](#)
- [PXM1E or PXM45 Card as Primary Clocking Source, page A-5](#)
- [Revertive and Nonrevertive Clocking, page A-6](#)

PXM1 Card as Primary Clocking Source

Figure 0-1 shows the PXM card primary clocking source option in which the clock source originates at the PXM side of the VISM/PXM interface.

Figure 0-1 VISM Configured for Local Clocking



The PXM1 card option allows you to configure the clocking source origination from one of the following sources:

- An external BITS clock on the PXM1 T1 or E1 back card port.
- An external OC3 signal on a PXM1 SONET back card port.
- The PXM1 card internal crystal (default).

The internal crystal is the default and is set as the primary clock source automatically when power is applied to the chassis.

To use one of the other two clocking sources, complete the following steps:

-
- Step 1** Use the **cnfclksrc** command to configure the clocking source—external BITS clock or external OC3 signal.
- Step 2** Use the **cnfln** command to configure all VISM lines for local clocking.
-

The PXM card option makes the PXM the clock source for the all cards in the chassis. The VISM cards then use this clocking to provide clocking for their associated T1 or E1 lines. Refer to [Chapter 7, “CLI Commands,”](#) for more information on VISM commands.

Refer to the *Cisco MGX 8850 Installation and Configuration Guide* and the *Cisco MGX 8000 Series Switch Command Reference* for information on the following PXM card clocking commands:

- **cnfcbclk**
- **cnfextclk**
- **cnfsrmclksrc**
- **dspcbclk**
- **dspclkinf**

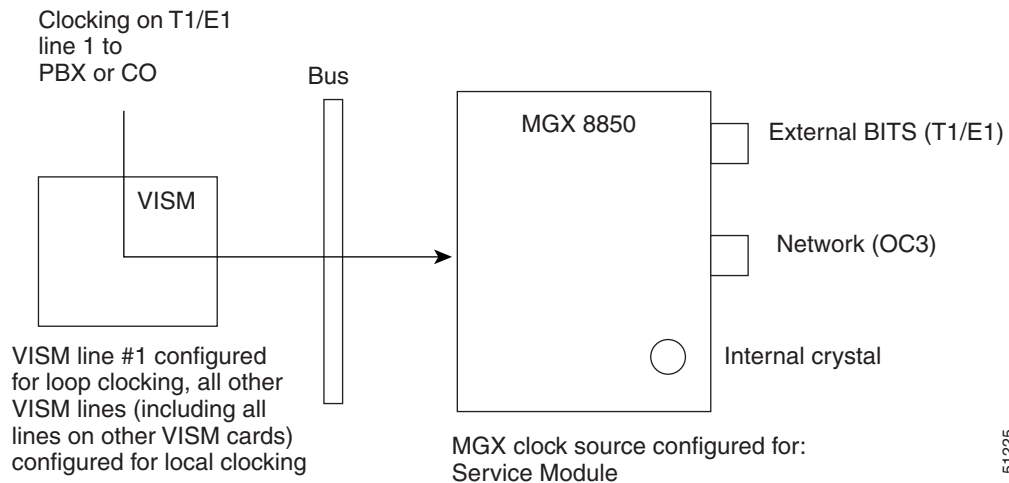
- `dspelksrc`
- `dspcurclk`

VISM Card as Clocking Source

You can configure the VISM card as a primary or secondary clocking source.

Figure 0-2 shows the VISM card primary clocking source option in which the clock source originates at the VISM side of the VISM/PXM1 interface.

Figure 0-2 VISM Configured for Loop Clocking



The VISM card option originates clocking from one of the T1 or E1 lines on one of the VISM cards.

To configure the VISM card as the primary or secondary clocking source, complete the following steps:

-
- Step 1** Log in to the VISM card.
- Step 2** Use the `cnfln` command to configure each of the T1 or E1 lines on for local clocking. All of the lines must be configured for local clocking.
- Step 3** Change card (`cc`) to the PXM1 card.
- Step 4** To configure the VISM as a primary clocking source, enter the `cnfclksrc` command with the following parameters:

```
cvgmgx1a.1.7.PXM.a > cnfclksrc <slot.port> P
```

Replace `<slot.port>` with the VISM card slot number and line number 1. The P indicates that the VISM card is configured as a primary clocking source.



Note

VISM card allows you to configure the clock source on line 1 only.

Step 5 To display the configured clock on the PXM1 card, enter the **dspclkinfo** command.

The following example shows the service module as the clocking source.

```

cvgmtx1a.1.7.PXM.a > dspclkinfo

***** Clock HW registers *****
SEL_T1 = t1      SEL100 = ON      SEL120 = OFF      SEL75 = OFF
NOEXTCLK = ON NOEXTCLK2 = OFF

priMuxClockSource = SERVICE_MODULE_PRI_CLK
prevPriMuxClockSource = INTERNAL_OSC
primaryInbandClockSourceLineNum = 1
secMuxClockSource = INTERNAL_OSC
prevSecMuxClockSource = INTERNAL_OSC
secondaryInbandClockSourceLineNumber = 1
currentClockSetReq = primary
currentClockHwStat = primary
StratumLevel = STRATUM4
PreviousClockHwStat = none
extClock1Present = No
extClock2Present = No
extClkConnectorType = RJ45
extClkSrcImpedance = 100 Ohms
Internal Clock Status=0, Primary Clock Status=0
Secondary Clock Status=0, Last inband Clock State=0
Last Inband Clock state= 0, Last External Clock Present = 1
Last External Clock2 Present = 1

```

Step 6 To configure the VISM as a secondary clocking source, enter the **cnfclksrc** command with the following parameters:

```

cvgmtx1a.1.7.PXM.a > cnfclksrc <slot.port> S

```

Replace *<slot.port>* with the VISM card slot number and line number 1. The S indicates that the VISM card is configured as a secondary clocking source.



Note

VISM card allows you to configure the clock source on line 1 only.

Step 7 To display the configured clock on the PXM1 card, enter the **dspclkinfo** command.

The following example shows the service module as a secondary clock source.

```

cvgmtx1a.1.7.PXM.a > dspclkinfo

***** Clock HW registers *****
SEL_T1 = t1      SEL100 = ON      SEL120 = OFF      SEL75 = OFF
NOEXTCLK = ON NOEXTCLK2 = OFF

priMuxClockSource = SERVICE_MODULE_PRI_CLK
prevPriMuxClockSource = SERVICE_MODULE_PRI_CLK
primaryInbandClockSourceLineNum = 1
secMuxClockSource = SERVICE_MODULE_SEC_CLK
prevSecMuxClockSource = INTERNAL_OSC
secondaryInbandClockSourceLineNumber = 1
currentClockSetReq = primary
currentClockHwStat = secondary
StratumLevel = STRATUM4
PreviousClockHwStat = primary
extClock1Present = No
extClock2Present = No
extClkConnectorType = RJ45
extClkSrcImpedance = 100 Ohms

```


```
Internal Clock Status=0, Primary Clock Status=0
Secondary Clock Status=0, Last inband Clock State=0
last Inband Clock state= 0, Last External Clock Present = 1
Last External Clock2 Present = 1
```

VISM-PR Card as Clocking Source

The VISM-PR card allows you to configure primary and secondary clocking from the following sources:

- Network clock—the local clock for the PXM1, PXM1E, or PXM45 module
- Any VISM-PR T1 or E1 line
- On-board oscillator

To configure the VISM-PR card as the primary or secondary clocking source, complete the following steps:

-
- Step 1** Log in to the VISM-PR card.
- Step 2** Use the **cnfln** command to configure each of the T1 or E1 lines on for local clocking.
All of the lines must be configured for local clocking.
- Step 3** Change cards (**cc**) to the PXM1, PXM1E, or PXM45 cards.
- Step 4** Use the **cnfclksrc** command to configure the PXM, PXM1E, or PXM45 card as a service module primary or secondary clocking source and specify VISM and its clocking line as the clocking source.
-
-  **Note** VISM-PR card allows you to configure the clock source on any line.
-
- Step 5** Use the **dspclkinfo** command to show the service module as a primary or secondary clocking source.
-

You cannot delete a line that is configured as the clock source. You must first configure the line to not be the clock source, and then you can delete the line.

Refer to [Chapter 7, “CLI Commands,”](#) for more information on VISM commands.

PXM1E or PXM45 Card as Primary Clocking Source

Use the **cnfncdpclksrc** command to configure the PXM1E or PXM45 card as the primary clock source. Refer to the *Cisco MGX 8850 Installation and Configuration Guide* and the *Cisco MGX 8000 Series Switch Command Reference* for configuration instructions. Use the following commands to display and verify your configuration:

- **dspncdpclkinfo**
- **dspncdpclksrc**

Revertive and Nonrevertive Clocking

Clocking can be either revertive or nonrevertive. If your MGX switch is configured for a clock source from a BITS source or PXM line source and the source line goes into the alarm state, a revertive or nonrevertive recovery occurs.

- **Revertive clocking**—If a node is configured and the clock source fails (due to a physical failure such as a loss of signal, the clock frequency drifts out of specification, or a bad frequency), the node abandons the clock source and finds an alternate clock source. When the original clock source repairs, the node automatically reverts to using the original clock source.
- **Nonrevertive clocking**—Similar to revertive clocking, except that when the original clock source repairs, the node does not automatically revert to the original clock source.

Revertive and nonrevertive clocking depends upon the processor module back card used and the clocking source specified. See [Table 0-1](#) to determine if your clocking is revertive or nonrevertive in your network configuration.

Table 0-1 Revertive/Nonrevertive Clocking and PXM Back Card Support

Processor Module Back Card	Using External Clock	Using Inband/Service Module Clock
PXM-UI	For loss of service: revertive	For loss of service: revertive
	For bad frequency/drift: nonrevertive	For bad frequency/drift: nonrevertive
PXM-UI-S3	For loss of service: revertive	For loss of service: revertive
	For bad frequency/drift: nonrevertive	For bad frequency/drift: nonrevertive

To make a nonrevertive clock source usable after it has failed, you must use the **cnfclksrc** command to remove the configuration of that particular clock source, and then use the **cnfclksrc** command again to configure it back. Refer to [Chapter 7, “CLI Commands,”](#) for more information on CLI commands.



VISM and VISM-PR Release 3.2 Specifications

This section contains the following topics:

- [VISM Card Specifications, page B-1](#)
- [VISM Card Physical Interface Specifications and Applicable Standards, page B-1](#)
- [VISM-PR Card Specifications, page B-3](#)

VISM Card Specifications

- ATM layer: Per ITU standards I.361 and ATM UNI v3.1
- AAL layer: AAL5 as per standard I.363.

VISM Card Physical Interface Specifications and Applicable Standards

Physical Layer Interface T1:

- Line Rate: 1.544 Mbps +/- 50 bps.
- Line Interface Connector: Balanced 100-ohm RJ-48C.
- Synchronization: The transmit clock can be selected from either the looped clock or the node's clock.
- Line Code: Bipolar 8 zero substitution (B8ZS) per ANSI T1.408 and AMI.
- Line Framing: Extended Superframe Format (ESF 24-frame multiframe) per ANSI T1.408.
- Input Jitter Tolerance: Per ATT TR 62411.
- Output Jitter Generation: Per ATT TR 62411 using normal mode synchronization.
- Physical Layer Alarms: LOS, LOF, AIS, RAI.

Physical Layer Interface E1:

- Line Rate: 2.048 Mbps +/- 50 bps.
- Line Interface Connector: Balanced 120-ohm RJ-48C, Unbalanced 75-ohm SMB.
- Synchronization: The transmit clock can be selected from either the looped clock or the node's clock.

- Line Code: HDB3 (E1) and AMI.
- Line Framing: 16-frame multiframe per G.704.
- Input Jitter Tolerance: As specified in ITU G.723 for 2.048 Mbps.
- Output Jitter Generation: As specified in ITU G.723 for 2.048 Mbps.
- Physical Layer Alarms: LOS, LOF, AIS, RAI.

General VISM Card Standards

Card Status Indicator LEDs:

- Active (Green)
- Standby (Orange)
- Fail (Red)

Line status indicator LEDs:

- Active and Okay (Green)
- Active and Local Alarm (Red)
- Active and Remote Alarm (Orange)

Maintenance/Serviceability Features: Internal loopbacks, hot-pluggable.

VISM Front Card:

- AX-VISM-8T1/8E1—7.25 x 16.25 inches

VISM Line Modules:

- AX-RJ48-8T1-LM—7.0 X 4.5 inches
- AX-R-RJ48-8T1-LM—7.0 X 4.5 inches
- AX-RJ48-8E1-LM—7.0 X 4.5 inches
- AX-R-RJ48-8E1-LM—7.0 X 4.5 inches
- AX-SMB-8E1-LM—7.0 X 4.5 inches
- AX-R-SMB-8E1-LM—7.0 X 4.5 inches

Total VISM Power:

- 48 VDC (100W estimated)
- 5 VDC (25W estimated)
- 3.3 VDC (43W estimated)
- 2.5 VDC (12W estimated)

VISM Card Counters Specifications

T1/E1 Framers:

- OOF Count
- LCV Count
- FER Count

- CRC Error Count

RTP/RTCP:

- Number of packets received
- Number of packets transmitted
- Number of error packets received

ATM Cells:

- Number of cells transmitted to cellbus
- Number of cells discarded due to intershelf alarm
- Number of cells transmitted with CLP bit set
- Number of AIS cells transmitted
- Number of FERF cells transmitted
- Number of end-to-end loop-back cells transmitted
- Number of segment loop-back cells transmitted
- Number of cells received from cellbus
- Number of cells received with CLP bit set
- Number of AIS cells received
- Number of FERF cells received
- Number of end-to-end loop-back cells received
- Number of segment loop-back cells received
- Number of OAM cells discarded due to CRC-10 error

Diagnostics:

- Header of last cell with unknown LCN

VISM-PR Card Specifications

This section describes the card specifications that are unique to the VISM-PR card.

VISM-PR Card Features

The following features are contained in the VISM-PR card:

- Voice processing for all channels, using the following:
 - Echo cancellation (ECAN)
 - Digital Signal, level 0 (DS0) channels
 - G.711u
 - G.711a
 - G.726-32K
 - G.729a
 - G.729ab

- Clear channel
- G.726-16K
- G.726-24K
- G.726-40K
- G.723-H
- G.723a-H
- G.723.1-L
- G.723.1a-L
- Tone detection and generation
- High functionality negotiated on demand for channels using the following:
 - Adaptive Differential Pulse Code Modulation (ADPCM)
 - Code Excited Linear Prediction (CELP)
- Multiple packetization format in the following modes:
 - Voice over IP (VoIP) switching/trunking
 - VoIP with Real-time Transport Protocol (RTP) in AAL5
 - Switched AAL1 switched virtual circuits (SVC)
 - Switched AAL2 SVC
 - Switched AAL2 PVC
 - AAL2 trunking
 - VoIP and Switched ATM AAL1 SVC
- High-density aggregation, providing the following:
 - 8 T1/E1s of PCM voice
 - 192 T1 or 248 E1 DS0s per VISM-PR card
 - 4608 T1 or 5952 E1 DS0s per chassis shelf
 - 13824 T1 or 17856 E1 DS0s per rack (3 MGX 8000 series switch chassis per rack)

See [Chapter 2, “Overview of the VISM and VISM-PR Cards”](#) for information about installing and using VISM and VISM-PR cards in your MGX 8000 series switch chassis.



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