



Preface

This preface describes the objectives, audience, organization, and conventions of the *Cisco VISM Installation and Configuration Guide*.

Objectives

This document describes the features, functions, installation, operation, and command line interface of Cisco Voice Interworking Service Module (VISM) Release 3.0.

Audience

This document is intended for the following personnel:

- Technicians responsible for installing VISM cards on the Cisco MGX 8230, MGX 8250, and MGX 8850 shelf.
- Network administrators responsible for configuring the Cisco MGX 8850 shelf.

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 present who is familiar with your network and UNIX servers during the initial installation of a Cisco MGX 8000 Series platform.

Document Organization

This document contains the following chapters:

- [Chapter 1, “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 2, “Telephony Applications Using VISM,”](#) describes VISM applications for a variety of voice networking situations.
- [Chapter 3, “VISM Functional Description,”](#) describes VISM’s functional operation.
- [Chapter 4, “Configuring VISM Features,”](#) describes the initial mandatory configuration procedures for using VISM cards in each of the operating modes.

- [Chapter 5, “CLI Commands,”](#) describes the syntax and semantics of each VISM command line interface command.
- [Chapter 6, “Troubleshooting Tips,”](#) describes VISM troubleshooting tools and techniques.
- [Appendix A, “VISM and 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—3.0 Specifications,”](#) describes the specifications of VISM Release 3.0.

Related Documentation

The following sections describe documentation you may need to reference as you use the VISM product.

Cisco MGX 8850 (PXM45) Multiservice Switch Release 3

The documentation for the installation and operation of the MGX 8850 Multiservice Switch for Release 3 is listed in [Table 1](#).

Table 1 Cisco MGX 8850 (PXM45) Multiservice Switch Release 3 Documentation

Title	Description
<i>Cisco MGX 8850 Hardware Installation Guide, Release 3 (PXM45/B and PXM1E)</i>	Describes how to install the MGX 8850 multiservice switch. This guide explains what the switch does and covers site preparation, grounding, safety, card installation, and cabling. The MGX 8850 switch uses either a PXM45 or a PXM1E controller card and provides support for both broadband and narrow band service modules.
<i>Cisco MGX 8850, MGX 8950, and MGX 8830 Command Reference (PXM45/B and PXM1E), Release 3</i>	Describes how to use the PXM and AXSM commands that are available for the MGX 8850, MGX 8950, and MGX 8830 switches.
<i>Cisco Frame Relay Software Configuration Guide and Command Reference for the MGX 8850 FRSM12 Card, Release 3</i>	Describes how to use the high-speed Frame Relay (FRSM12) commands that are available for the MGX 8850 switch.
<i>Cisco MGX 8850 (PXM45) and MGX 8950 Software Configuration Guide, Release 3</i>	Describes how to configure MGX 8850 and MGX 8950 switches with PXM45 controller cards to operate as ATM edge or core switches. This guide also provides some operation and maintenance procedures.
<i>Cisco MGX and SES PNNI Network Planning Guide for MGX Release 3 and SES Release 3</i>	Provides guidelines for planning a PNNI network that uses the MGX 8850 and the MGX 8950 switches and the BPX 8600 switches. When connected to a PNNI network, each BPX 8600 series switch requires a SES for PNNI route processing.
<i>Cisco MGX Route Processor Module (RPM-XF) Installation and Configuration Guide, Release 3</i>	Describes how to install and configure the MGX Route Processor Module (RPM-XF) in the MGX 8850 Release 3 switch. Also provides site preparation, troubleshooting, maintenance, cable and connector specifications, and basic Cisco IOS configuration information.

Table 1 Cisco MGX 8850 (PXM45) Multiservice Switch Release 3 Documentation (continued)

Title	Description
<i>Cisco MGX Route Processor Module (RPM-PR) Installation and Configuration Guide, Release 2.1</i>	Describes how to install and configure the MGX Route Processor Module (RPM-PR) in the MGX 8850 Release 2.1 and later switches. Also provides site preparation, troubleshooting, maintenance, cable and connector specifications, and basic Cisco IOS configuration information.
<i>Release Notes for Cisco MGX Route Processor Module (RPM/B and RPM-PR) for Release 1.2.10 and Release 3</i>	Provides the latest feature, upgrade, and compatibility information, as well as known and resolved anomalies for RPM-PR.

MGX 8850 (PXM1) Multiservice Switch Release 1.2.10

The documentation for the installation and operation of the MGX 8850 (PXM1) Multiservice Switch is listed in [Table 2](#).

Table 2 MGX 8850 (PXM1) Multiservice Switch Release 1.2.10 Documentation

Title	Description
<i>Cisco MGX 8850 Multiservice Switch Installation and Configuration, Release 1.1.3</i>	Provides installation instructions for the MGX 8850 multiservice switch.
<i>Cisco MGX 8800 Series Switch Command Reference, Release 1.1.3</i>	Provides detailed information on the general command line for the MGX 8850 switch.
<i>Cisco MGX 8800 Series Switch System Error Messages, Release 1.1.3</i>	Provides error message descriptions and recovery procedures.
<i>Cisco MGX 8850 Multiservice Switch Overview, Release 1.1.3</i>	Provides a technical description of the system components and functionality of the MGX 8850 multiservice switch from a technical perspective.
<i>Cisco MGX Route Processor Module Installation and Configuration Guide, Release 1.1</i>	Describes how to install and configure the MGX Route Processor Module (RPM/B and RPM-PR) in the MGX 8850, MGX 8250, and MGX 8230 Release 1 switch. Also provides site preparation, troubleshooting, maintenance, cable and connector specifications, and basic Cisco IOS configuration information.
<i>Release Notes for Cisco MGX 8230, MGX 8250, and MGX 8850 (Release 1), Software Version 1.2.10 (PXM1)</i>	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.
<i>Release Notes for Cisco MGX Route Processor Module (RPM/B and RPM-PR) for Release 1.2.10 and Release 3</i>	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.

MGX 8250 Edge Concentrator Release 1.2.10

The documentation for the installation and operation of the MGX 8250 Edge Concentrator is listed in [Table 3](#).

Table 3 MGX 8250 Edge Concentrator Release 1.2.10 Documentation

Title	Description
<i>Cisco MGX 8250 Edge Concentrator Installation and Configuration, Release 1.1.3</i>	Provides installation instructions for the MGX 8250 Edge Concentrator.
<i>Cisco MGX 8250 Multiservice Gateway Command Reference, Release 1.1.3</i>	Provides detailed information on the general command line interface commands.
<i>Cisco MGX 8250 Multiservice Gateway Error Messages, Release 1.1.3</i>	Provides error message descriptions and recovery procedures.
<i>Cisco MGX 8250 Edge Concentrator Overview, Release 1.1.3</i>	Describes the system components and functionality of the MGX 8250 Edge Concentrator from a technical perspective.
<i>Cisco MGX Route Processor Module Installation and Configuration Guide, Release 1.1</i>	Describes how to install and configure the MGX Route Processor Module (RPM/B and RPM-PR) in the MGX 8850, MGX 8250, and MGX 8230 Release 1 switch. Also provides site preparation, troubleshooting, maintenance, cable and connector specifications, and basic Cisco IOS configuration information.
<i>Release Notes for Cisco MGX 8230, MGX 8250, and MGX 8850 (Release 1), Software Version 1.2.10 (PXM1)</i>	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.
<i>Release Notes for Cisco MGX Route Processor Module (RPM/B and RPM-PR) for Release 1.2.10 and Release 3</i>	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.

MGX 8230 Edge Concentrator Release 1.2.10

The documentation for the installation and operation of the MGX 8230 Edge Concentrator is listed in [Table 4](#).

Table 4 MGX 8230 Edge Concentrator Documentation

Title	Description
<i>Cisco MGX 8230 Edge Concentrator Installation and Configuration, Release 1.1.3</i>	Provides installation instructions for the MGX 8230 Edge Concentrator.
<i>Cisco MGX 8230 Multiservice Gateway Command Reference, Release 1.1.3</i>	Provides detailed information on the general command line interface commands.
<i>Cisco MGX 8230 Multiservice Gateway Error Messages, Release 1.1.3</i>	Provides error message descriptions and recovery procedures.
<i>Cisco MGX 8230 Edge Concentrator Overview, Release 1.1.3</i>	Provides a technical description of the system components and functionality of the MGX 8250 Edge Concentrator from a technical perspective.

Table 4 *MGX 8230 Edge Concentrator Documentation (continued)*

Title	Description
<i>Cisco MGX Route Processor Module Installation and Configuration Guide, Release 1.1</i>	Describes how to install and configure the MGX Route Processor Module (RPM/B and RPM-PR) in the MGX 8850, MGX 8250, and MGX 8230 Release 1 switch. Also provides site preparation, troubleshooting, maintenance, cable and connector specifications, and basic Cisco IOS configuration information.
<i>Release Notes for Cisco MGX 8230, MGX 8250, and MGX 8850 (Release 1), Software Version 1.2.10 (PXM1)</i>	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.
<i>Release Notes for Cisco MGX Route Processor Module (RPM/B and RPM-PR) for Release 1.2.10 and Release 3</i>	Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.

The documentation listed in [Table 5](#) contain additional information related to the operation of the Cisco VISM product.

Table 5 *Cisco VISM Related Documentation*

Document	Description
<i>Cisco MGX 8850 Multiservice Switch Installation and Configuration, Release 1.1.31</i>	Cisco MGX 8850 shelf installation procedures—refer to the sections describing the installation and configuration of the PXM1 card.
<i>Cisco MGX 8800 Series Switch Command Reference, Release 1.1.31</i>	Cisco MGX 8800 shelf command line interface commands—refer to the commands that apply to the PXM1 card.
<i>Cisco MGX 8250 Edge Concentrator Installation and Configuration, Release 1.1.31</i>	Cisco MGX 8250 shelf installation procedures—refer to the sections describing the installation and configuration of the PXM1 card.
<i>Cisco MGX 8250 Multiservice Gateway Command Reference, Release 1.1.31</i>	Cisco MGX 8250 shelf command line interface commands—refer to the commands that apply to the PXM1 card.
<i>Cisco MGX 8230 Edge Concentrator Installation and Configuration, Release 1.1.31</i>	Cisco MGX 8230 shelf installation procedures—refer to the sections describing the installation and configuration of the PXM1 card.
<i>Cisco MGX 8230 Multiservice Gateway Command Reference, Release 1.1.31</i>	Cisco MGX 8230 shelf command line interface commands—refer to the commands that apply to the PXM1 card.
<i>1.1.32 Version Software Release Notes Cisco WAN MGX 8850, 8230, and 8250 Software</i>	Hardware and software feature upgrades for the Cisco MGX 8850, MGX 8230, and MGX 8250.

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 documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain 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

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 Ordering tool:
<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 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. The Cisco TAC website is located at this URL:

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

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 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. The online TAC Case Open Tool is located at this URL:

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

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.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Go to this URL to visit the company store:

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

- 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://cisco.com/univercd/cc/td/doc/pcat/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users 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/iqmagazine>

- *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/ipj>
- 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>

