



DATA SHEET

CISCO VOICE INTERWORKING SERVICE MODULE

The Cisco[®] Voice Interworking Service Module (VISM-PR) is a packet voice module for the Cisco MGX[®] 8880 Media Gateway and the Cisco MGX 8000 Series multiservice switches. The Cisco VISM-PR offers robust packet voice functions for service providers and enterprise customers.

PRODUCT OVERVIEW

The innovative architecture of the Cisco VISM-PR (refer to Figure 1) combined with onboard digital signal processors helps enable the Cisco VISM-PR to offer a full suite of packet voice services. Operators can use the advanced features of the Cisco VISM-PR to rapidly deploy revenue-generating packet voice networks.

The Cisco VISM-PR offers a field-proven full set of voice over IP (VoIP) and voice over ATM (VoATM) features, including toll-quality voice, fax, and modem. The Cisco VISM-PR can be deployed in standalone configurations or with softswitches to enable a variety of packet voice services in network architectures using the Media Gateway Control Protocol (MGCP), PacketCable[™] Trunking Gateway Control Protocol (TGCP), H.323, and the Session Initiation Protocol (SIP).

The Cisco VISM-PR provides full investment protection for existing Cisco MGX 8000 Series multiservice customers by providing the ability to add revenue-generating packet voice services to existing multi-service networks.

The Cisco VISM-PR is field-proven with deployments in more than 30 countries worldwide and in more than 100 service provider and enterprise networks, providing a range of applications and services.

Figure 1. Cisco VISM-PR (Front Card)



APPLICATIONS

Features and Benefits

Tables 1 through 5 provide information about the Cisco VISM-PR.

Table 1. Features and Benefits of Cisco VISM-PR

Feature	Benefit
8T1/E1 Interfaces Per Module	<ul style="list-style-type: none">• Cost-effective entry and scalability
Time-Division Multiplexing (TDM) Interfaces	<ul style="list-style-type: none">• Direct termination of 8 T1 or 8 E1 interfaces• T3, OC-3, or STM-1 interface connectivity using optional Service Resource Module (SRM)
Packet Technology	<ul style="list-style-type: none">• VoIP and VoATM (ATM Adaptation for AAL1 and AAL2)• Support for standalone and softswitch-based applications
High Availability	<ul style="list-style-type: none">• Cisco MGX platform support for 1:1 common equipment redundancy and 1:N Cisco VISM-PR redundancy
Deployment Flexibility	<ul style="list-style-type: none">• Proven successful deployments with Cisco and partner softswitches worldwide• VoIP and VoATM support with the same hardware and software

Table 2. Overview of Cisco VISM-PR Protocols and Features

Features	Description
Call Control	<ul style="list-style-type: none">• MGCP, TGCP
Signaling Interfaces	<ul style="list-style-type: none">• Channel Associated Signaling (CAS), Feature Group D (FG-D) support for E911 and operator services, Signaling System 7 (SS7) and Inter-Machine Trunk (IMT), and ISDN Primary Rate Interface (PRI)
Voice Compression	<ul style="list-style-type: none">• G.711, G.723.1, G.726, G.729a/b, Clear Channel, and Cisco Lossless compression
Digital-Signal-Processor (DSP) Features	<ul style="list-style-type: none">• G.165, G.168-2000 integrated, nonblocking echo cancellation; programmable up to 128 ms• Transparent transcoding between a-law and μ-law encoding• Voice Activated Detection, Silence Suppression, and Comfort Noise Generation• Fixed and Adaptive Jitter Buffering• Preprogrammed and configurable support for tone detection and generation• Dual Tone Multi Frequency (DTMF) relay for IP and ATM• DTMF relay to softswitch• CAS signal translation and manipulation• Continuity test support• Bit Error Rate Test (BERT) and loopback test (with optional SRM)
Modem and Fax	<ul style="list-style-type: none">• T.38 Fax Relay (gateway or softswitch controlled)• Fax and modem passthrough
IP	<ul style="list-style-type: none">• Real-Time Transport Protocol (RTP) and RTP Control Protocol (RTCP) (RFC 1889)• DTMF Relay (RFC 2833)• Resource Reservation Protocol (RSVP) and Call Admission Control (CAC)
ATM	<ul style="list-style-type: none">• Standards-based AAL2 Adaptation and subcell multiplexing• Support for Constant Bit Rate (CBR), Real-Time Variable Bit Rate (VBR-rt), and Non-Real-Time VBR (VBR-nrt) ATM traffic classes
Announcements	<ul style="list-style-type: none">• Onboard announcement storage and playout

Features	Description
Lawful Intercept	<ul style="list-style-type: none"> • Lawful intercept (Communications Assistance for Law Enforcement Act [CALEA]) support for call content
Management Interfaces	<ul style="list-style-type: none"> • Simple Network Management Protocol (SNMP) • Command-line interface (CLI) • Telnet • Secure Shell (SSH) protocol • FTP

Table 3. Product Specifications for Cisco VISM-PR

Chassis Compatibility	<ul style="list-style-type: none"> • Cisco MGX 8880 Media Gateway • Cisco MGX 8850 multiservice switches • Cisco MGX 8830 multiservice switches
Physical Specifications	<p><i>Front Card</i></p> <ul style="list-style-type: none"> • Height: 7.25 in. (184.1 mm) • Depth: 16.14 in. (409.9 mm) • Weight: 3.0 lb (1.4 kg) <p><i>Back Card</i></p> <ul style="list-style-type: none"> • Height: 7 in. (177.8 mm) • Depth: 4.125 in. (104.7 mm) • Weight: 0.6 lb (0.29 kg) <p><i>Environmental</i></p> <ul style="list-style-type: none"> • Operating temperature: 32° to 104°F (0° to 40°C) • Operating (noncondensing): 10 to 85 percent
Power Consumption	<ul style="list-style-type: none"> • Approximately 60W per module

Compliance	<p><i>Safety</i></p> <ul style="list-style-type: none"> • UL 1950 3rd Ed./CSA C22.2 No. 950 (covers United States and Canada) • IEC 60950 (covers EU for CE marking) <p><i>EMI/ESD</i></p> <ul style="list-style-type: none"> • 47 CFR Part 15: 2002 • CISPR22: 1997 • EN55022: 1998 • EN61000-3-2: 2000 • EN61000-3-3: 1995 • EN300386: 2001 • VCCI: V-3/2000.04 • EN300386: 2001 • EN50082-1: 1997 • EN61000-6-1: 2001 Central Office Equipment [USA] • GR1089: Issue 2: Rev1: 1999 • GR1089: Issue 3: October 2002 <p><i>T1</i></p> <ul style="list-style-type: none"> • TIA-968-A 2002 (USA) • CS-03 Issue 8 1996 (Canada) <p><i>E1</i></p> <ul style="list-style-type: none"> • RTTE Directive (1999/5/EC) 1999 (CE)
Indicators	LED for module and interface status

Table 4. TDM Interfaces for Cisco VISM-PR

	T1	E1
Port Speed	1.544 Mbps	2.048 Mbps
Number of Interfaces	8	8
Port Media	100-ohm twisted pair	120-ohm twisted pair
Port Connector	RJ-48	RJ-48 I/F or SMB I/F
Line Coding	Binary 8-Zero Substitution (B8ZS) or Alternate Mark Inversion (AMI)	High Density Bipolar Order 3 Encoding or AMI
Line Framing	ANSI T1.408 Extended Superframe format line framing and clear channel	ITU-T G.704 16 frame multiframe line framing and clear channel

Table 5. Availability and Ordering Information for Cisco VISM-PR

Product Description	Part Number	
	Front Card	Back Card
Cisco VISM-PR with 8 T1 interfaces	MGX-VISM-PR-8T1	AX-RJ48-8T1
Cisco VISM-PR with 8 E1 interfaces	MGX-VISM-PR-8E1	AX-RJ48-8E1 or AX-SMB-8E1

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