# Release Notes for Cisco Multiservice Packet Network Solution, Release 2.0

## Contents

These release notes describe the following topics:



**Tip** Use this document online. This document provides hyperlinks to related documents and websites, including release notes for solution components.

## Document Version and Solution Release

This is the first version of this document, which describes the Cisco Multiservice Packet Network Solution, Release 2.0.


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# Introduction

The Cisco Multiservice Packet Network Solution provides a multiservice architecture for the delivery of voice, Multi Protocol Label Switching (MPLS) Virtual Private Networks (VPNs), and Internet services for Public Telephone and Telegraph (PTT) operators and new service providers (NSPs).

The solution is a collaboration between Cisco Systems, Inc. and Italtel S.p.A, with Cisco providing the media gateways and Italtel providing the call agents. The solution allows PTTs and NSPs to offer voice and data services over a single, packet-based, MPLS-VPN enabled IP network, and it provides the scalability and features required by a broad range of fixed and wireless service providers.

See the *Cisco Multiservice Packet Network Solution Overview* for illustrations of solution configurations.

# Solution Components

The Cisco Multiservice Packet Network Solution includes components from both Cisco Systems, Inc. and Italtel, S.p.A. The tables in this section identify the solution components:

- Cisco Components
- Italtel Components
- Italtel Components
- Cisco Element Management Systems
- Italtel Element Management System

## Cisco Components

Table 1 lists the Cisco components that can be used to implement the solution.

***Table 1 Cisco Components***

| Component | Purpose |
|---|---|
| MGX 8230 Edge Concentrator | For this solution, a smaller multiservice gateway that provides voice, and IP services. |
| MGX 8250 Edge Concentrator | For this solution, a multiservice gateway that provides voice, and IP services. |
| MGX 8850 Multiservice Switch | For this solution, a voice gateway that provides a complete portfolio of voice and data services. |
| Voice Interworking Service Module (VISM) | Provides the voice gateway between the voice TDM networks and networks based on packet switching technology. |
| VISM-PR | The VISM-PR is a new high-density voice interworking service module. |

*Table 1 Cisco Components (continued)*

| Component | Purpose |
|---|---|
| Processor Switch Module (PXM-1) | Integrates switching, processing, and broadband interfaces, which provide high-performance switching and trunking on a single card. |
| Service Resource Module/Enhanced (SRM/E) | Provides three major functions for service modules:<br>• Enables establishing 1:N redundancy for service modules.<br>• Provides for bit error rate tester (BERT) of E1 lines and ports,<br>• Loops back individual N x 64 channels toward the customer premises equipment (CPE) |

# Italtel Components

Table 2 lists the solution components supplied by Italtel.

*Table 2 Italtel Components*

| Component | Purpose |
|---|---|
| Italtel Multiservice Switching System (iMSS) 4050 | Supports the pure call agent configuration.<br>This call agent is a Media Gateway Controller and Signalling Gateway, which is usually deployed in a pure configuration to manage virtual transit applications. |
| Italtel Multiservice Switching System (iMSS) 4040 | Supports the large enhanced call agent configuration.<br>This call agent is a Media Gateway Controller and Signalling Gateway, which interprets signalling messages and routes calls through the packet backbone. In an enhanced configuration, the iMSS 4040 can operate as a call agent and TDM switch simultaneously. |
| Operation and Maintenance Server (OMS) | Manages the physical and logical configuration of the whole system. This component collects billing data, traffic measurements and alarms, and provides interface to the MSEM for local operators. |
| Optical Peripheral Module (OPM) | Provides switch control and call handling, and synchronizes timing for TDM line interfaces. |
| Centralized Processing Server (CPS) | Optional device that provides extra processing capacity for the Basic Services Handler (BSH) and Virtual Termination Call Handler (VTCH). |
| Interconnection Service Module (ISM) | Optional device that enables extending TDM switching over multiple OPMs. |
| Virtual Termination Call Handler (VTCH) | Supports communication with the Cisco media gateways using MGCP and SRCP; also manages SS7 signalling with the SS7 network. |
| Basic Service Handler (BSH) | Provides advanced services such as call screening, number portability, and basic number translation. |

# Cisco Element Management Systems

Table 3 lists the Cisco element management systems (EMSs) for the Cisco Multiservice Packet Network Solution.

***Table 3 Cisco Element Management Systems***

| Element Manager | Minimum Release Required | Element Manager System Requirements |
|---|---|---|
| Cisco Element Management Framework (CEMF) | 3.2 | For a full description of the system requirements for the Cisco Element Management Framework, see the *Release Notes for Cisco Element Management Framework v3.2*. |
| Cisco WAN Manager | 10.5.10—for VISM 2.1<br>11.0.10—for VISM-PR 3.0 | For a full description of the system requirements for the Cisco WAN Manager, see the *Release Notes for Cisco WAN Manager 10.5.10 Patch 2 for Solaris* or the *Release Notes for Cisco WAN Manager for Solaris 7, Release 11.0.00, Patch 1*. |
| Cisco Universal Gateway Manager | 2.0 | For a full description of the system options for the Cisco Universal Gateway Manager, see the *Release Note for Cisco Universal Gateway Manager Version 2.0.* |
| CiscoWorks2000—Routed WAN Management Solution | 1.1 | For a full description of the system requirements for the CiscoWorks2000-Routed WAN Management Solution, see the guide *Read Me First—RWAN Management Solution, Release 1.1*. |
| Cisco 12000 Manager | 2.1 | For a full description of the system requirements for the Cisco 12000 Manager, see the *Cisco 12000 Manager Release Notes (Release 2.1)*. |
| Cisco Networking Services Notification Engine | 2.0 | For a full description of the system requirements for the CNS Notification Engine, see the *Release Notes for CNS Notification Engine* (in the release 2.0 Documentation set). |
| Cisco Access Registrar | 3.0 | For a full description of the system requirements for the Cisco Access Registrar, see the *Release Notes for Cisco Access Registrar 3.0*. |

## Italtel Element Management System

Table 4 identifies the element management system for the Italtel Multi-Service Network Switching System, which provides configuration, performance, and fault management for the Italtel iMSS 4040 and iMSS 4050 call agents.

*Table 4 Italtel Element Management Component*

| Element Manager | Minimum Release Required | Element Manager System Requirements |
|---|---|---|
| Multiservice Element Manager (MSEM) | 1.20 | For a description of the system requirements for the Italtel Multiservice Element Manager (MSEM), see the Italtel documentation for MSEM. |

# System Requirements

Table 5 provides the memory requirements for the Cisco MGX 8230, MGX 8250, and MGX 8850 media gateways with PXM-1 and VISM cards.

*Table 5 Cisco Hardware-Software Matrix for MGX Media Gateway Memory Requirements*

| Component | Minimum Operating System Release | Flash Memory Required, MB | DRAM Memory Required, MB |
|---|---|---|---|
| MGX 8230, MGX 8250, or MGX 8850 (with PXM-1) | 1.1.32 | 128 MB | 2 MB |
| VISM | 2.1.1 | 32 MB | |
| VISM-PR | 3.0 | 64 MB | |

## Cisco Hardware and Software Component Mapping

Table 6 maps the PXM, VISM, and element management system release levels required for proper interworking of these components.

*Table 6 Cisco MGX Media Gateway Component to EMS Version Mapping*

| PXM Version | VISM Version | Element Management System |
|---|---|---|
| PXM-1 release 1.1.34 | VISM 2.1 | Cisco WAN Manager 10.5.10 |
| PXM-1 release 1.2.10 | VISM 3.0 | Cisco WAN Manager 11.0.00 |
| PXM-1 release 1.2.11 | VISM 3.1 | Cisco WAN Manager 11.0.10 |

# Caveats

Table 7 lists caveats identified in the operation of the Cisco Multiservice Packet Network Solution. Workarounds are provided where applicable.

***Table 7 Cisco Multiservice Packet Network Solution Caveats***

| DDTS Number | Caveat Description | Workaround |
|---|---|---|
| TAC: C676496 | System error messages have been found in the MGX PXM when a **no shut** command is issued on the secondary PVC ATM link to the 7500 edge routers. | This is a known PXM problem. There is currently no workaround. This issue does not impact PXM functionality. |
| DDTS: CSCdx56579 | The ATM PVC interface starts flapping for 5-6 seconds under the following conditions; 1) the fiber cable is connected to the interface, or 2) the interface is brought on line via the no shut command. The resulting behavior is a service interruption for 5-6 seconds. The issue is caused when the 7500 first declares the ATM interface/sub-interface in service before verifying the ATM-PVC availability via OA&M cells. | There is currently no workaround for this problem. |
| MALF 34311 | Adding and/or removing end points on an already configured VISM under traffic can result in traffic loss. | There is currently no workaround for this problem. The addition or removal of endpoints has no effect on established calls. The traffic loss affects only a call in the set-up phase on the OPM on which the addition or removal is performed. Only end-points belonging to previously configured VISMs are affected. It is estimated that 2-5% of calls will be lost for 2-3 seconds before the solution recovers. |
| DDTS / TAC: CSCdx24028 / C293025 | A VISM hang may occur when the primary LCN is set to 132. | There is currently no workaround for this problem. The issue is fixed in VISM 2.2. |

# Related Documentation

The complete list of component and solution documentation that pertains to the Cisco Multiservice Packet Network Solution is provided in the *Cisco Multiservice Packet Network Solution Documentation Guide*.

## Solution Documents

Documents supporting the Cisco Multiservice Packet Network Solution, including these Release Notes, are available online:

The solution documents are:

- *Cisco Multiservice Packet Network Solution Overview Guide*

  This document provides an overview of the solution architecture, components, and services for the Cisco Multiservice Packet Network Solution. The following major topics are covered:

  – Solution Architecture

  – Solution Components

  – Solution Management

- *Cisco Multiservice Packet Network Solution Documentation Guide*

  This guide identifies the solution-level and component documentation for the solution.

- *Release Notes for Cisco Multiservice Packet Network Solution, Release 2.0*

## Component Documents

For a complete list of all solution-level and component documentation, refer to the *Cisco Multiservice Packet Network Solution Documentation Guide*.

# Obtaining Documentation

The following sections explain how to obtain documentation from Cisco Systems.

## World Wide Web

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

http://www.cisco.com

Translated documentation is available at the following 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 is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

## Ordering Documentation

Cisco documentation is available in the following ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:

  http://www.cisco.com/cgi-bin/order/order_root.pl

- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:

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

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

## Documentation Feedback

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

We appreciate your comments.

# Obtaining Technical Assistance

For technical assistance with the Cisco Multiservice Packet Network Solution, call the following number:

+39 02 4388 5500

For information on how to obtain technical assistance for a Cisco product, refer to the Release Notes for the relevant product.

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.