



Release Notes for Cisco MC3810 for Cisco IOS Release 12.1 XM

February 13, 2002

Cisco IOS Release 12.1(5) XM7

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These release notes for the Cisco MC3810 multiservice access concentrator describe the enhancements provided in Cisco IOS Release 12.1(5) XM7. These release notes are updated as needed.

For a list of the software caveats that apply to Release 12.1(5) XM7, see the [“Caveats for Cisco IOS Release 12.1 XM” section on page 11](#) and *Caveats for Cisco IOS Release 12.1T* that accompanies these release notes. This caveats document is updated for every maintenance release and is also located on Cisco.com and the Documentation CD-ROM.

Use these release notes with *Cross-Platform Release Notes for Cisco IOS Release 12.1* located on Cisco.com and the Documentation CD-ROM.

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Corporate Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

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Introduction

The Cisco MC3810 multiservice access concentrator is fully supported by Cisco IOS software for multiprotocol routing, bridging, and Systems Network Architecture (SNA). As part of an enterprise backbone or as customer premises equipment (CPE) to serve provider-managed network services, the Cisco MC3810 reduces operating costs and complexity, and increases network throughput and performance.

The Cisco MC3810 provides a complete file system for software images, message files, and reports. The standard Flash memory size is 8 MB, and a 16-MB upgrade option is available. The 16-MB version can hold two code images simultaneously for fail-safe upgrades.

Management and configuration of the Cisco MC3810 should be familiar to the Cisco IOS user and compatible with existing management systems. As such, it provides a superset of the Cisco command-line interface (CLI). The Cisco MC3810 can be managed by standard Cisco management platforms and facilities such as CiscoView and the native remote log-in facilities provided by Telnet and login. Three types of configuration interfaces are provided:

- Cisco CLI
- HTTP-based configuration server
- SNMP-based Management Information Base (MIB)

The HTTP-based interface allows configuration from any web browser such as Netscape Navigator or Microsoft Explorer. The simple network management protocol (SNMP) MIB allows management of the Cisco MC3810 from SNMP managers (for example, HP OpenView).

For information on new features and Cisco IOS commands supported by Cisco IOS Release 12.1(5) XM7, see the [“New and Changed Information” section on page 7](#) and the [“Related Documentation” section on page 18](#).

System Requirements

This section describes the system requirements for Cisco IOS Release 12.1(5) XM7:

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Memory Recommendations

Table 1 Memory Recommendations for the Cisco MC3810

Image Name	Software Image	Flash Memory Recommended	DRAM Memory Recommended	Runs From
IP Plus VoATM, VoIP	mc3810-a2isv5-mz	16 MB	64 MB	RAM
Enterprise Plus, VoATM, VoIP	mc3810-a2jsv5-mz	16 MB	64 MB	RAM

Hardware Supported

Cisco IOS Release 12.1(5) XM7 supports the Cisco MC3810 multiservice access concentrator. The Cisco MC3810 base chassis is a semi fixed configuration router that can be customized for a specific application at the factory or in the field by a qualified technician. The base chassis includes the following components:

- One fixed Ethernet LAN port
- A console port and an auxiliary port
- Two synchronous serial ports
- Five mounting areas for functional modules that support additional capabilities
- AC, DC, or redundant power supply option

Cisco MC3810 series concentrators are supplied in various standard hardware configurations. These are equipped with different sets of functional modules to provide specific functional capability. Many configurations are possible, but they are all variations of the basic categories described in [Table 2](#). Supported hardware is shown in [Table 3](#). The chassis opening for any mounting area not equipped with a functional module is closed off with a removable cover plate.

Table 2 Cisco MC3810 Series Standard Hardware Categories

Category	Service Types Supported	Required Modules	Optional Modules
Base chassis	Base chassis services ¹	None	Optional modules can be added to create other chassis variations
Analog voice chassis	Base chassis services ¹ plus compressed analog voice connections to telephone, fax, central office, analog PBX	AVM (analog voice module) with 1 to 6 APMs (analog personality modules) VCM3 or VCM6 or HCM2 or HCM6 (only one voice compression module)	MFT ² to support a channelized T1 or E1 trunk MFT ² and VDM ³ to support video codec dialing

Table 2 Cisco MC3810 Series Standard Hardware Categories (continued)

Category	Service Types Supported	Required Modules	Optional Modules
Digital voice chassis	Base chassis services ¹ plus compressed digital voice through digital PBX	DVM VCM3 or VCM6 or HCM2 or HCM6 (one or two voice compression modules)	MFT ² to support a channelized T1 or E1 trunk MFT ² and VDM to support video codec dialing
Basic rate interface (BRI) voice chassis	Base chassis services ¹ plus compressed digital voice through PINX	BVM and MFT ¹ VCM3 or VCM6 or HCM2 or HCM6 (only one voice compression module)	MFT to support a channelized T1 or E1 trunk MFT ² and VDM ³ to support video codec dialing
T1/E1 trunk chassis	Base chassis services ¹ plus channelized T1 or E1	MFT ²	DVM to support digital cross-connect voice (channel bank functionality/drop-and-insert) through digital PBX or channel bank VDM ³ to support video codec dialing VCM3 and/or VCM6, or HCM2 and/or HCM6, to support voice compression

1. Base chassis services include administrative access, Ethernet, data transport, and video transport.
2. The MFT is available with or without BRI backup.
3. If a VDM is installed, an MFT is required to support ATM for the video dialing network connection.

Table 3 Hardware Supported on the Cisco MC3810 for Cisco IOS Release 12.1(5)XM4

Module or Other Hardware Option		Product Number
Voice Interface Modules	6-port AVM ¹	MC3810-AVM6=
	1-port E1 DVM, connects to PBX/channel bank/key system ²	MC3810-DVM-E1=
	1-port T1 DVM, connects to PBX/channel bank/key system ²	MC3810-DVM-T1=
	1-port unbalanced E1 DVM, connects to PBX/channel bank/key system ²	MC3810-DVM-BNC=
	4-port BRI voice module ³	MC3810-BVM4=
Video Dialing Module	Supports an RS-366 Automatic Calling Equipment (ACE) interface to the DTE port of the videoconferencing equipment ⁴	MC3810-VDM=

Table 3 Hardware Supported on the Cisco MC3810 for Cisco IOS Release 12.1(5)XM4

Module or Other Hardware Option	Product Number	
Analog Personality Modules⁵	1-port E & M ⁶ analog module	MC3810-APM-EM=
	1-port FXS ⁷ analog module	MC3810-APM-FXS=
	1-port FXO ⁸ analog module	MC3810-APM-FXO=
	1-port FXO analog module, approved for the U.K.	MC3810-FXO-UK=
	1-port FXO analog module, approved for Germany	MC3810-FXO-GER=
	1-port FXO analog module, approved for PR2 ⁹ countries	MC3810-FXO-PR2=
	1-port FXO analog module, approved for PR3 ¹⁰ countries	MC3810-FXO-PR3=
Voice Compression Modules¹¹	2-DSP HCM ¹² , supports up to 8 channels of compressed voice	MC3810-HCM2=
	6-DSP HCM, supports up to 24 channels of compressed voice	MC3810-HCM6=
	3-DSP VCM ¹³ , supports up to 6 channels ¹⁴ of compressed voice	MC3810-VCM3=
	6-DSP VCM, supports up to 12 channels ⁹ of compressed voice	MC3810-VCM6=
Multiflex Trunk Modules with Optional BRI	1-port MFT with RJ-48 channelized T1 interface	MC3810-MFT-T1=
	1-port MFT with RJ-48 channelized E1 interface	MC3810-MFT-E1=
	1-port MFT with unbalanced E1-BNC interface	MC3810-MFT-BNC=
	1-port MFT with RJ-48 channelized T1 and BRI S/T interfaces	MC3810-MFT-TBS=
	1-port MFT with unbalanced E1-BNC and BRI S/T interfaces	MC3810-MFT-EUS=

- Requires one to six APMs and one voice compression module (VCM3 or VCM6).
- Requires one or two voice compression modules (VCM6) for processed voice.
- Requires one voice compression module (VCM3 or VCM6) and Cisco IOS Release 12.0(4)T or a later release.
- Requires MFT for ATM connectivity and Cisco serial V.35 DCE cable (product order number 72-1721-01) that includes a Ringing Indicator (RI) conductor, and a Cisco RS-366 ACE cable (product order number 72-1722-01) to connect the VDM to the videoconferencing equipment RS-366 dial-up DTE port.
- For use with analog voice modules; one AVM requires at least one APM and supports up to six APMs.
- E&M = recEiver & transMitter (or Ear & Mouth)
- FXS = foreign exchange station
- FXO = foreign exchange office
- PR2 countries currently include Australia and New Zealand.
- PR3 countries currently include Japan and Singapore.
- VCMs and Cisco IOS Plus feature sets are required for voice processing (for example, switching, compression, echo cancellation, and silence suppression) but not for drop-and-insert applications.
- HCM = high performance compression module
- VCM = voice compression module
- Cisco MC3810 maximum voice channel support by compression algorithm: G.711 at 64 kbps = 6 channels; G.726 at 32 kbps = 12 channels; G.729 at 8 kbps = 12 channels; G.729a at 8 kbps = 24 channels.

Determining the Software Version

To determine the version of Cisco IOS software running on a Cisco MC3810, log in and enter the **show version EXEC** command:

```
MC3810>#show version
Cisco Internetwork Operating System Software
IOS (tm) MC3810 Software (mc3810-js-mz), Version 12.1(5) XM7, RELEASE SOFTWARE
```

Upgrading to a New Software Release

For general information about upgrading to a new software release, refer to *Upgrading the Cisco IOS Software Release in Cisco Routers and Modems* located at:

http://www.cisco.com/warp/public/130/upgrade_index.shtml

Feature Set Table

Cisco IOS software is packaged in feature sets consisting of software images—depending on the platform. Each feature set contains a specific set of Cisco IOS features, as shown in [Table 4](#).

Cisco IOS Release 12.1(5) XM7 supports the same feature sets as Cisco IOS Release 12.1(5) T, but Cisco IOS Release 12.1(5) XM7 can include new features supported by the Cisco MC3810.



Caution

Cisco IOS images with strong encryption (including, but not limited to, 168-bit Triple Data Encryption Standard [3DES] data encryption feature sets) are subject to United States government export controls and have limited distribution. Strong encryption images to be installed outside the United States are likely to require an export license. Customer orders may be denied or subject to delay because of United States government regulations. When applicable, purchaser and user must obtain local import and use authorizations for all encryption strengths. Please contact your sales representative or distributor for more information, or send an e-mail to export@cisco.com.

[Table 4](#) lists the features and feature set images supported by the Cisco MC3810 in Cisco IOS Release 12.1(5) XM7 and uses the following conventions:

- Yes—The feature is supported in the software image.
- No—The feature is not supported in the software image.
- In—The number in the “In” column indicates the Cisco IOS release in which the feature was introduced. For example, (5) MX2 means a feature was introduced in 12.1(5) XM2. If a cell in this column is empty, the feature was included in the initial base release.



Note

You can find the most current Cisco IOS documentation on Cisco.com. If you have a Cisco.com login account, you can find image and release information regarding features prior to Cisco IOS Release 12.1(5) T by using the Feature Navigator tool at <http://www.cisco.com/go/fn>.

Table 4 Feature List by Feature Set for the MC3810

Features	Software Images by Feature Set		
	In	IP Plus/VoIP and VoATM	Enterprise Plus/VoIP and VoATM
MGCP CAS PBX and AAL2 PVC ¹	(5) XM	Yes	Yes
MGCP Basic CLASS and Operator Services ¹	(5) XM	Yes	Yes

1. This feature is supported only on MC3810 systems with the HCM version of the DSP card. This feature is not supported with the VCM version of the DSP card.

New and Changed Information

The following is a list of the new hardware and software features supported by the Cisco MC3810 for Cisco IOS Release 12.1(5) XM7.

New Hardware and Software Features in Cisco IOS Release 12.1(5) XM7

There are no new hardware and software features in the Cisco MC3810 series for Cisco IOS Release 12.1(5) XM7.

New Hardware and Software Features in Cisco IOS Release 12.1(5) XM6

Cisco IOS Release 12.1(5) XM6 does not support the Cisco MC3810.

New Hardware and Software Features in Release 12.1(5) XM5

There is no new hardware and software supported by the Cisco MC3810 in Cisco IOS Release 12.1(5) XM5.

New Hardware and Software Features in Release 12.1(5) XM4

There is no new hardware and software supported by the Cisco MC3810 in Cisco IOS Release 12.1(5) XM4.

New Hardware and Software Features in Release 12.1(5) XM3

There is no new hardware and software supported by the Cisco MC3810 in Cisco IOS Release 12.1(5) XM3.

New Hardware and Software Features in Release 12.1(5) XM2

There is no new hardware and software supported by the Cisco MC3810 in Cisco IOS Release 12.1(5) XM2.

New Hardware and Software Features in Release 12.1(5) XM1

There is no new hardware and software supported by the Cisco MC3810 in Cisco IOS Release 12.1(5) XM1.

New Hardware Features in Release 12.1(5) XM

There is no new hardware and software supported by the Cisco MC3810 in Cisco IOS Release 12.1(5) XM.

New Software Features in Release 12.1(5) XM

The following new software features are supported by the Cisco MC3810 in Cisco IOS Release 12.1(5) XM.

MGCP CAS PBX and AAL2 PVC

The MGCP CAS PBX and AAL2 PVC feature set extends the earlier Simple Gateway Control Protocol (SGCP) CAS and AAL2 support onto the merged SGCP/MGCP software base. These features enable various service provider solutions, including Integrated Access, IP PBX, Residential Cable Access, and Voice over DSL.



Note

The AAL2 PVC functionality is supported on the High Performance Compression Module (HCM) version of the DSP card; it is not supported on the Voice Compression Module (VCM) version.

To check the type of DSP card in your MC3810, enter a **show version** command at the EXEC prompt.

For example:Router#**show version**

If you have an HCM card, the following line appears as part of the **show version** information:

```
1 6-DSP (slot 2) High Performance Compression Module(v01.A0)
```

If you have a VCM card, the following line appears as part of the **show version** information:

```
1 6-DSP (slot 2) Voice Compression Module(v255.V7)
```

MGCP Basic CLASS and Operator Services

The MGCP Basic CLASS and Operator Services are a set of calling features, sometimes called “custom calling” features, that use MGCP to transmit voice, video, and data over the IP network. These features are usually found in circuit-based networks. MGCP BCOS brings them to the Cisco IOS gateways on packet-based networks.



Note

The MGCP BCOS functionality is supported on the High Performance Compression Module (HCM) version of the DSP card; it is not supported on the Voice Compression Module (VCM) version.

To check the type of DSP card in your MC3810, enter a **show version** command at the EXEC prompt.

For example:Router#**show version**

If you have an HCM card, the following line appears as part of the **show version** information:

```
1 6-DSP (slot 2) High Performance Compression Module(v01.A0)
```

If you have an VCM card, the following line appears as part of the **show version** information:

```
1 6-DSP (slot 2) Voice Compression Module(v255.V7)
```

The MGCP BCOS software is built on the MGCP CAS PBX and AAL2 software package, and supports MGCP 0.1 and the earlier protocol versions Simple Gateway Control Protocol (SGCP) 1.1 and 1.5.

The following MGCP BCOS features are available on Residential Gateways (RGWs):

- Distinctive power ring
- Visual Message Waiting Indicator
- Caller ID
- Caller ID with Call Waiting
- Call Forwarding
- Ring Splash
- Distinctive Call Waiting Tone
- Message Waiting Tone
- Stutter Dial Tone
- Off-Hook Warning Tone

The following two features can be run as RGW or trunking gateway (TGW) features:

- 911 Calls - This feature is supported in SGCP mode on Cisco uBR924, 3660, and AS5300 platforms and in MGCP mode on the 2600, 3600, MC3810, 530 and uBR924 platforms.
- Three-Way Calling -This feature is supported on the Cisco 3660 and AS5300 TGW platforms and on the Cisco MC3810, 2600, and uBR924 RGW platforms. This feature is supported on G.711 only.

MIBs

Current MIBs

To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB website on Cisco.com at <http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>.

Deprecated MIBs

Old Cisco MIBs will be replaced in a future release. Currently, OLD-CISCO-* MIBs are being converted into more scalable MIBs without affecting existing Cisco IOS products or network management system (NMS) applications. You can update from deprecated MIBs to the replacement MIBs as shown in [Table 5](#).

Table 5 *Deprecated and Replacement MIBs*

Deprecated MIB	Replacement
OLD-CISCO-APPLETALK-MIB	RFC1243-MIB
OLD-CISCO-CHASSIS-MIB	ENTITY-MIB
OLD-CISCO-CPUK-MIB	To be determined
OLD-CISCO-DECNET-MIB	To be determined

Table 5 Deprecated and Replacement MIBs (continued)

Deprecated MIB	Replacement
OLD-CISCO-ENV-MIB	CISCO-ENVMON-MIB
OLD-CISCO-FLASH-MIB	CISCO-FLASH-MIB
OLD-CISCO-INTERFACES-MIB	IF-MIB CISCO-QUEUE-MIB
OLD-CISCO-IP-MIB	To be determined
OLD-CISCO-MEMORY-MIB	CISCO-MEMORY-POOL-MIB
OLD-CISCO-NOVELL-MIB	NOVELL-IPX-MIB
OLD-CISCO-SYS-MIB	(Compilation of other OLD* MIBs)
OLD-CISCO-SYSTEM-MIB	CISCO-CONFIG-COPY-MIB
OLD-CISCO-TCP-MIB	CISCO-TCP-MIB
OLD-CISCO-TS-MIB	To be determined
OLD-CISCO-VINES-MIB	CISCO-VINES-MIB
OLD-CISCO-XNS-MIB	To be determined

Important Notes

Using the Cisco MC3810 with QSIG or BRI

Serial port 1 is restricted to DCE operation when the following occurs:

- QSIG is enabled.
- BRI voice module (BVM) is installed and BRI is enabled.
- BRI S/T backup port is installed and enabled on the MFT.

Using the Cisco MC3810 with the PSTN

This section includes important notes regarding use of the Cisco MC3810 with the public switched telephone network (PSTN).

Connections to the PSTN

Exercise care when connecting switched voice ports on the Cisco MC3810 directly to the PSTN because improper configurations can expose a corporate network to telephone fraud.

Switched Access from the PSTN

The Cisco MC3810 can connect a user from the PSTN directly to the corporate wide-area telephone network. You can configure the Cisco MC3810 as a phone switch that can switch a user to any location in that network, even to remote locations that are connected again to another PSTN. However, the Cisco MC3810 does not provide any mechanism to restrict users from calling after they are connected. Without proper network design, this condition could result in the unauthorized use of the corporate

network for making calls at the corporation's expense. To prevent this from occurring, Cisco does not recommend connecting a switched voice interface on the Cisco MC3810 directly to the PSTN. Instead, it should be connected to a PBX that implements a security scheme that prevents unauthorized use.

Nonswitched Calls

The same opportunity for illicit use does not exist for nonswitched call types such as pass-through connections, although the possibility for fraud does exist at the direct contact point. Pass-through calls create a path to only a single location specified by the network administrator. For example, a pass-through connection might be used to pass a trunk from a PBX to the PSTN. In this case, the trunk on the PBX always passes straight through the Cisco MC3810 to the PSTN. As a result, the necessary security is provided by the PBX.

Caveats for Cisco IOS Release 12.1 XM

Caveats describe unexpected behavior or defects in Cisco IOS software releases. Severity 1 caveats are the most serious caveats; severity 2 caveats are less serious. Severity 3 caveats are moderate caveats, and only select severity 3 caveats are included in the caveats document.

This section contains only open and resolved caveats for the current Cisco IOS maintenance release.

All caveats in Cisco IOS Release 12.1 and Cisco IOS Release 12.1T are also in Cisco IOS Release 12.1(5) XM7.

For information on caveats in Cisco IOS Release 12.1T, see *Caveats for Cisco IOS Release 12.1T*.

For information on caveats in Cisco IOS Release 12.1, see *Caveats for Cisco IOS Release 12.1*, which lists severity 1 and 2 caveats and select severity 3 caveats for Cisco IOS Release 12.1 and is located on Cisco.com and the Documentation CD-ROM.

Caveat numbers and brief descriptions of caveats in Cisco IOS Release 12.1(5) XM7 are listed in [Table 6](#). For details about a particular caveat, go to Bug Toolkit at:

<http://www.cisco.com/kobayashi/bugs/bugs.html>

To access this location, you must have an account on Cisco.com. For information about how to obtain an account, go to the [“Feature Navigator” section on page 20](#).



Note

If you have an account with Cisco.com, you can use Bug Navigator II to find caveats of any severity for any release. To reach Bug Navigator II, **log in** to Cisco.com and click **Service and Support: Technical Assistance Center: Select & Download Software: Jump to a software resource: Software Bug Toolkit/Bug Watcher**. Another option is to go to <http://www.cisco.com/support/bugtools/>.

Open Caveats — Cisco IOS Release 12.1(5) XM7

There are no open caveats specific to Cisco IOS Release 12.1(5) XM7 that require documentation in the release notes.

Resolved Caveats — Cisco IOS Release 12.1(5) XM7

All the caveats listed in [Table 6](#) are open in Cisco IOS Release 12.1(5) XM7. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 6 *Resolved Caveats for Release 12.1(5) XM7*

Caveat ID Number	Description
CSCdw65903	An error can occur with management protocol processing. Please use the following URL for further information: http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCdw65903

Open Caveats—Cisco IOS Release 12.1(5) XM6

Cisco IOS Release 12.1(5) XM6 does not support the Cisco MC3810.

Open Caveats—Cisco IOS Release 12.1(5) XM5

There are no open caveats specific to Cisco IOS Release 12.1(5) XM5 that require documentation in the release notes.

Resolved Caveats—Cisco IOS Release 12.1(5) XM5

All the caveats listed in [Table 7](#) are resolved in Cisco IOS Release 12.1(5) XM5. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 7 *Resolved Caveats for Release 12.1(5) XM5*

Caveat ID Number	Description
CSCdt09214	Spurious memory access at vp_ipfib_fixup+0x20
CSCdu76530	Reload of Customer router causes 3810 ATM PVC to go down
CSCdu20127	Busyout Monitor Prevents Trunk From Establishing After Router Reload
CSCdu52076	MC3810 inappropriately sent 402 when gateway was on-hook (not user on-hook)
CSCdu76530	Reload of router causes MC3810 ATM PVC to go down

Open Caveats—Cisco IOS Release 12.1(5) XM4

All the caveats listed in [Table 8](#) are open in Cisco IOS Release 12.1(5) XM4. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 8 Open Caveats for Release 12.1(5) XM4

Caveat ID Number	Description
CSCdt61467	Need a way to change the default value of VPDN parameters

Resolved Caveats—Cisco IOS Release 12.1(5) XM4

All the caveats listed in [Table 9](#) are resolved in Cisco IOS Release 12.1(5) XM4. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 9 Resolved Caveats for Release 12.1(5) XM4

Caveat ID Number	Description
CSCds14059	Support for untagged Radius tunnel attributes (attr.69 et al)
CSCds26490	Turning off MGCP crash 3810 while call is activate
CSCds55510	Memory Leak with AAA route download
CSCds63993	H323 GW: IP calls dangling when delay TCP connection occurs
CSCds65611	All B-chan out of serv after controller no-shut then serial no-shut
CSCds71291	Spurious Accesses in mlp_timer
CSCdt11503	IOS crashes when large OID (>256 fields) is received
CSCdt41888	Add dlcx functionality as hidden command
CSCdt46181	Redzone corruption in pptp_tcp_readf()
CSCdt61207	Variable length buzzing heard after digit collect - before ring back
CSCdt63518	FIB-4-PUNTINTF msg for L2F/MP bundle member w no ip route-cache cef
CSCdt69055	B-channels IN_SERVICE after RESTART when L1 is DEACTIVATED
CSCdt82163	Router crashed after unconfiguring the ds0-group
CSCdt89495	24th channel of T1 0 stays busied-out
CSCdt96253	CRC-32 compensation vulnerability
CSCdt96531	Lost CID for aaal5mux voice PVC after sh/no sh T1 1 controller
CSCdt96945	Resource threshold information lost on GK after element failure
CSCdu05205	Memory corruption crash
CSCdu05236	Default disabling of parser cache should not be nvgened
CSCdu07504	sh voice dsp causes reload
CSCdu08214	Calltracker MIB returns NULL for userid when DNIS/ANI is not present
CSCdu14000	Traceback at rlm_link_weight_priority_insert_compare after reload
CSCdu25007	clear spe with calls running could have negative effects
CSCdu27780	AS5300 Suspend message not sent on H323 side with fax configured
CSCdu29676	mc3810:aftercle count called fails
CSCdu34741	Term GW doesnt disconnect call which arrives after RLM is down

Table 9 Resolved Caveats for Release 12.1(5) XM4 (continued)

Caveat ID Number	Description
CSCdu42219	Throttle 21 fails to bring up B channels after reboot w/SS7
CSCdu62721	12.1(5)XM4 candidate fails to bring up B-channels

Open Caveats—Cisco IOS Release 12.1(5) XM3

All the caveats listed in [Table 10](#) are open in Cisco IOS Release 12.1(5) XM3. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 10 Open Caveats for Release 12.1(5) XM3

Caveat ID Number	Description
CSCdt93370	Memory allocation failure: Pool Manager
CSCds52536	ISDN sync call rejected/failed caller id screening/workaround>reload
CSCds70303	SHOW ISDN STAT shows hanging CCBs (CCBs without active calls)

Resolved Caveats—Cisco IOS Release 12.1(5) XM3

All the caveats listed in [Table 11](#) are resolved in Cisco IOS Release 12.1(5) XM3. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 11 Closed and Resolved Caveats for Release 12.1(5) XM3

Caveat ID Number	Description
CSCds05677	Router crashed after shut and no shut of mgcp
CSCds69945	Gateway crashes during clear counter after RQNT: Q: loop
CSCdt15970	Crash when debug frame-relay switching used
CSCdt70120	Quarantine tests for Process Mode Fail
CSCdt88527	Common design of AAL2 alarm cond. not work for both DVM
CSCdu10269	SGCP CAS hung channel during stress test
CSCdu12528	Three-way calling broken in flo_t and v121_5_xm_throttle
CSCdt55258	MLP hangs router or causes stack overrun
CSCds52920	Syslog messages are not logged onto syslog server.
CSCdt01452	Lex interface forward bridge BPDUs coming from remote LAN extender
CSCdt09023	Cannot build the 7200 platform -p- images
CSCdt10151	H323 VSA attribute being sent for all platforms
CSCdt30629	Need to speed up RM to TACACS+ accounting processing
CSCdt38813	H323 GW leaks RTCP ports with signal only call
CSCdt78196	Cisco 3640 router crashes at L3_ProcessInternal

Open Caveats—Cisco IOS Release 12.1(5) XM2

The caveat listed in this section is open in Cisco IOS Release 12.1(5) XM2.

- CSCds50077

This caveat is included because a Cisco MC3810 can function as a Gatekeeper.

On a Cisco 7200 series router, the Gatekeeper Transaction Message Protocol (GKTMP) may not be able to re-establish connection to the Backend Server until five minutes after the connection was terminated.

The Gatekeeper sends all requests to the server. However, if there is a slow link or limited processor capacity, the server is unable to respond to these requests on time. When this happens, the Gatekeeper may mark the server as unreachable and terminate the connection. Once the connection is terminated, it will not be re-established for another five minutes.

Workaround: Match server capacity to process requests with the number and capacities of the gatekeepers it is serving.

- CSCds81187

When the PPP Password Authentication Protocol (PAP)-password validation fails—that is, when the PPP PAP password is configured incorrectly—a slow memory leak occurs. There is no workaround.

Resolved Caveats—Cisco IOS Release 12.1(5) XM2

All the caveats listed in this section are resolved in Cisco IOS Release 12.1(5) XM2. This section describes only severity 1 and 2 caveats and select severity 3 caveats.

- CSCds57256

When a VoIP call is made and the POTS call leg is connected to a PBX using Q Signaling, a memory-allocation error might occur. There is no workaround.

This caveat has been resolved in Cisco IOS Release 12.1(5) XM2.

- CSCds75265

If an Extended Ringback (XRBK) message with a specific connection ID (such as in “S:xrbk@conn-id”) is included in a notification-request (RQNT) message to the terminating gateway after the call has been setup (that is, after a Create-Connection [CRCX] message has been sent), the RQNT message is rejected. However, if the connection ID is “\$”, the message is not rejected.

Workaround: Send the XRBK message without the connection ID (such as in “S:xrbk”) or with “\$” as the connection ID (such as in “S:xrbk@\$”). Example:

```
RQNT 46533 aaln/1 SGCP 1.5
X: 281004
R: hd, vbd
S: xrbk@$, rg, ci(,4088275001,sj827-15)
```

Alternate workaround: Send the XRBK message in the CRCX message itself (that is, the CRCX message to the terminating gateway). Example:

```
CRCX 1205 aaln/2@l-gw1.whatever.net SGCP 1.5
C: A3C47F21456789F02
L: p:10, a:G.711, e:on, s:on
M: sendonly
R: hu, hf
X: 0123456789AC
```

```
S: ci(,7325551212,), wt, xrbk@$
```

```
v=0
c=IN IP4 128.96.41.1
m=audio 3456 RTP/AVP 0 0
```

This caveat has been resolved in Cisco IOS Release 12.1(5) XM2.

- CSCds85698

The originator of a call that is controlled by the Media Gateway Control Protocol (MGCP) or the Simple Gateway Control Protocol (SGCP) might experience poor voice quality. There is no workaround.

This caveat has been resolved in Cisco IOS Release 12.1(5) XM2.

- CSCds04747

Connection setup improvements.

This caveat has been resolved in Cisco IOS Release 12.1(5) XM2.

Open Caveats—Cisco IOS Release 12.1(5) XM1

The caveat listed in this section is open in Cisco IOS Release 12.1(5) XM1.

- CSCds50077

This caveat is included because a Cisco MC3810 can function as a Gatekeeper.

On a Cisco 7200 series router, the Gatekeeper Transaction Message Protocol (GKTMP) may not be able to re-establish connection to the Backend Server until five minutes after the connection was terminated.

The Gatekeeper sends all requests to the server. However, if there is a slow link or limited processor capacity, the server is unable to respond to these requests on time. When this happens, the Gatekeeper may mark the server as unreachable and terminate the connection. Once the connection is terminated, it will not be re-established for another five minutes.

Workaround: Match server capacity to process requests with the number and capacities of the gatekeepers it is serving.

Resolved Caveats—Cisco IOS Release 12.1(5) XM1

All the caveats listed in this section are resolved in Cisco IOS Release 12.1(5) XM1. This section describes only severity 1 and 2 caveats and select severity 3 caveats.

- CSCds57256

When a VoIP call is made and the POTS call leg is connected to a PBX using Q Signaling, a memory-allocation error might occur. There is no workaround.

This caveat has been resolved in Cisco IOS Release 12.1(5)XM1.

- CSCds75265

If an Extended Ringback (XRBK) message with a specific connection ID (such as in “S:xrbk@conn-id”) is included in a notification-request (RQNT) message to the terminating gateway after the call has been setup (that is, after a Create-Connection [CRCX] message has been sent), the RQNT message is rejected. However, if the connection ID is “\$”, the message is not rejected.

Workaround: Send the XRBK message without the connection ID (such as in “S:xrbk”) or with “\$” as the connection ID (such as in “S:xrbk@\$”). Example:

```
RQNT 46533 aaln/1 SGCP 1.5
X: 281004
R: hd, vbd
S: xrbk@$, rg, ci(,4088275001,sj827-15)
```

Alternate workaround: Send the XRBK message in the CRCX message itself (that is, the CRCX message to the terminating gateway). Example:

```
CRCX 1205 aaln/2@l-gw1.whatever.net SGCP 1.5
C: A3C47F21456789F02
L: p:10, a:G.711, e:on, s:on
M: sendonly
R: hu, hf
X: 0123456789AC
S: ci(,7325551212,), wt, xrbk@$
```

```
v=0
c=IN IP4 128.96.41.1
m=audio 3456 RTP/AVP 0 0
```

This caveat has been resolved in Cisco IOS Release 12.1(5)XM1.

- CSCds85698

The originator of a call that is controlled by the Media Gateway Control Protocol (MGCP) or the Simple Gateway Control Protocol (SGCP) might experience poor voice quality. There is no workaround.

This caveat has been resolved in Cisco IOS Release 12.1(5)XM1.

- CSCds04747

Connection setup improvements.

This caveat has been resolved in Cisco IOS Release 12.1(5)XM1.

Open Caveats—Cisco IOS Release 12.1(5)XM

The caveat listed in this section is open in Cisco IOS Release 12.1(5)XM.

- CSCds85698

The originator of a call that is controlled by the Media Gateway Control Protocol (MGCP) or the Simple Gateway Control Protocol (SGCP) might experience poor voice quality. There is no workaround.

Resolved Caveats—Cisco IOS Release 12.1(5)XM

There are no resolved caveats specific to Cisco IOS Release 12.1(5) X that require documentation in the release notes.

Related Documentation

The following sections describe the documentation available for the Cisco MC3810. Typically, these documents consist of hardware and software installation guides, Cisco IOS configuration and command references, system error messages, feature modules, and other documents.

Documentation is available as printed manuals or electronic documents, except for feature modules, which are available online on Cisco.com and the Documentation CD-ROM.

Use these release notes with the documents listed in the following sections:

- [Release-Specific Documents, page 18](#)
- [Platform-Specific Documents, page 19](#)
- [Feature Modules, page 19](#)
- [Feature Navigator, page 20](#)
- [Cisco IOS Software Documentation Set, page 20](#)

Release-Specific Documents

The following documents are specific to Cisco IOS Release 12.1 and are located on Cisco.com and the Documentation CD-ROM:

- *Cross-Platform Release Notes for Cisco IOS Release 12.1*

On Cisco.com at:

Technical Documents: Cisco IOS Software: Cisco IOS Release 12.1: Release Notes: Cross-Platform Release Notes

On the Documentation CD-ROM at:

Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 12.1: Release Notes: Cross-Platform Release Notes

- Product bulletins, field notices, and other release-specific documents on Cisco.com at:

Technical Documents

- The “[Caveats for Cisco IOS Release 12.1 XM](#)” section on page 11

As a supplement to the caveats listed in “[Caveats for Cisco IOS Release 12.1 XM](#)” in these release notes, see *Caveats for Cisco IOS Release 12.1* and *Caveats for Cisco IOS Release 12.1T*, which contains caveats applicable to all platforms for all maintenance releases of Cisco IOS Release 12.1 and Cisco IOS Release 12.1 T.

On Cisco.com at:

Technical Documents: Cisco IOS Software: Cisco IOS Release 12.1: Release Notes: Caveats

On the Documentation CD-ROM at:

Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 12.1: Caveats

**Note**

If you have an account with Cisco.com, you can use Bug Navigator II to find caveats of any severity for any release. To reach Bug Navigator II, log in to Cisco.com and click **Service & Support: Technical Assistance Center: Select & Download Software: Jump to a software resource: Software Bug Toolkit/Bug Watcher**. Another option is to go to <http://www.cisco.com/support/bugtools/bugtool.shtml>.

Platform-Specific Documents

The documents listed below are available for the Cisco MC3810. These documents are also available online at Cisco.com and on the Documentation CD-ROM.

- *Quick Start Guide Cisco MC3810 Series Multiservice Access Concentrators Installation and Startup*
- *Cisco MC3810 Multiservice Access Concentrator Hardware Installation Guide*
- *Cisco MC3810 Multiservice Concentrator Software*
- *FRU Replacement in the Cisco MC3810 Multiservice Access Concentrator*
- *Cisco MC3810 Multiservice Access Concentrator Software Requirement for Analog Personality Modules*
- *Cisco 600W Redundant Power System*
- *Cisco MC3810 Multiservice Access Concentrator NEBS Level 3/ETSI Compliance Kit for Cisco MC3810 Series Concentrators*
- *Cisco MC3810 Multiservice Access Concentrator Regulatory Compliance and Safety Information*
- *Configuring Selected 12.1 Cisco IOS Software Features*

To reach Cisco MC3810 documentation on Cisco.com, follow this path, beginning under the **Service & Support** heading:

Technical Documents: Access Servers and Access Routers: Multiservice Access Concentrators

To reach Cisco MC3810 documentation on the Documentation CD-ROM, follow this path:

Cisco Product Documentation: Access Servers and Access Routers: Multiservice Access Concentrators

Feature Modules

Feature modules describe new features supported by Cisco IOS Release 12.1(5) XM7 and are updates to the Cisco IOS documentation set. A feature module consists of a brief overview of the feature, benefits, configuration tasks, and a command reference. As updates, the feature modules are available online only. Feature module information is incorporated in the next printing of the Cisco IOS documentation set.

On Cisco.com at:

Technical Documents: Cisco IOS Software: Cisco IOS Release 12.1: New Feature Documentation

On the Documentation CD-ROM at:

Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 12.1: New Feature Documentation

Feature Navigator

Feature Navigator is a web-based tool that enables you to quickly determine which Cisco IOS software images support a particular set of features and which features are supported in a particular Cisco IOS image.

Feature Navigator is available 24 hours a day, 7 days a week. To access Feature Navigator, you must have an account on Cisco.com. If you have forgotten or lost your account information, e-mail the Contact Database Administration group at cdbadmin@cisco.com. If you do not have an account on Cisco.com, go to <http://www.cisco.com/register> and follow the directions to establish an account.

To use Feature Navigator, you must have a JavaScript-enabled web browser such as Netscape 3.0 or later, or Internet Explorer 4.0 or later. Internet Explorer 4.0 always has JavaScript enabled. To enable JavaScript for Netscape 3.x or Netscape 4.x, follow the instructions provided with the web browser. For JavaScript support and enabling instructions for other browsers, check with the browser vendor.

Feature Navigator is updated when major Cisco IOS software releases and technology releases occur. It contains feature information about mainline-, T-, S-, and P-trains. You can access Feature Navigator at the following URL:

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

Cisco IOS Software Documentation Set

The Cisco IOS software documentation set consists of the Cisco IOS configuration guides, Cisco IOS command references, and several other supporting documents. The Cisco IOS software documentation set is shipped with your order in electronic form on the Documentation CD-ROM—unless you specifically ordered the printed versions.

Documentation Modules

Each module in the Cisco IOS documentation set consists of one or more configuration guides and one or more corresponding command references. Chapters in a configuration guide describe protocols, configuration tasks, and Cisco IOS software functionality, and contain comprehensive configuration examples. Chapters in a command reference provide complete command syntax information. Use each configuration guide with its corresponding command reference.

On Cisco.com at:

Technical Documents: Cisco IOS Software: Cisco IOS Release 12.1: Configuration Guides and Command References

On the Documentation CD-ROM at:

Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 12.1: Configuration Guides and Command References

Cisco IOS Release 12.1 Documentation Set Contents

[Table 12](#) lists the contents of the Cisco IOS Release 12.1 software documentation set, which is available in electronic form and in printed form if ordered.

**Note**

You can find the most current Cisco IOS documentation on Cisco.com and the Documentation CD-ROM. These electronic documents may contain updates and modifications made after the hard-copy documents were printed.

On Cisco.com at:

Technical Documents: Cisco IOS Software: Cisco IOS Release 12.1

On the Documentation CD-ROM at:

Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 12.1

Table 12 Cisco IOS Release 12.1 Documentation Set

Books	Major Topics
<ul style="list-style-type: none"> • <i>Cisco IOS Configuration Fundamentals Configuration Guide</i> • <i>Cisco IOS Configuration Fundamentals Command Reference</i> 	Cisco IOS User Interfaces Cisco IOS File Management Cisco IOS System Management
<ul style="list-style-type: none"> • <i>Cisco IOS Bridging and IBM Networking Configuration Guide</i> • <i>Cisco IOS Bridging and IBM Networking Command Reference, Volume I</i> • <i>Cisco IOS Bridging and IBM Networking Command Reference, Volume II</i> 	Using Cisco IOS Software Overview of SNA Internetworking Bridging IBM Networking
<ul style="list-style-type: none"> • <i>Cisco IOS Dial Services Configuration Guide: Terminal Services</i> • <i>Cisco IOS Dial Services Configuration Guide: Network Services</i> • <i>Cisco IOS Dial Services Command Reference</i> 	Preparing for Dial Access Modem Configuration and Management ISDN and Signaling Configuration PPP Configuration Dial-on-Demand Routing Configuration Dial-Backup Configuration Terminal Service Configuration Large-Scale Dial Solutions Cost-Control Solutions Virtual Private Networks X.25 on ISDN Solutions Telco Solutions Dial-Related Addressing Services Interworking Dial Access Scenarios
<ul style="list-style-type: none"> • <i>Cisco IOS Interface Configuration Guide</i> • <i>Cisco IOS Interface Command Reference</i> 	Interface Configuration Overview Configuring LAN Interfaces Configuring Serial Interfaces Configuring Logical Interfaces
<ul style="list-style-type: none"> • <i>Cisco IOS IP and IP Routing Configuration Guide</i> • <i>Cisco IOS IP and IP Routing Command Reference</i> 	IP Addressing and Services IP Routing Protocols IP Multicast
<ul style="list-style-type: none"> • <i>Cisco IOS AppleTalk and Novell IPX Configuration Guide</i> • <i>Cisco IOS AppleTalk and Novell IPX Command Reference</i> 	AppleTalk and Novell IPX Overview Configuring AppleTalk Configuring Novell IPX

Table 12 Cisco IOS Release 12.1 Documentation Set (continued)

Books	Major Topics
<ul style="list-style-type: none"> • <i>Cisco IOS Apollo Domain, Banyan VINES, DECnet, ISO CLNS, and XNS Configuration Guide</i> • <i>Cisco IOS Apollo Domain, Banyan VINES, DECnet, ISO CLNS, and XNS Command Reference</i> 	Apollo Domain, Banyan VINES, DECnet, ISO CLNS, and XNS Overview Configuring Apollo Domain Configuring Banyan VINES Configuring DECnet Configuring ISO CLNS Configuring XNS
<ul style="list-style-type: none"> • <i>Cisco IOS Multiservice Applications Configuration Guide</i> • <i>Cisco IOS Multiservice Applications Command Reference</i> 	Multiservice Applications Overview Voice Video Broadband
<ul style="list-style-type: none"> • <i>Cisco IOS Quality of Service Solutions Configuration Guide</i> • <i>Cisco IOS Quality of Service Solutions Command Reference</i> 	Quality of Service Overview Classification Congestion Management Congestion Avoidance Policing and Shaping Signaling Link Efficiency Mechanisms Quality of Service Solutions
<ul style="list-style-type: none"> • <i>Cisco IOS Security Configuration Guide</i> • <i>Cisco IOS Security Command Reference</i> 	Security Overview Authentication, Authorization, and Accounting (AAA) Security Server Protocols Traffic Filtering and Firewalls IP Security and Encryption Other Security Features
<ul style="list-style-type: none"> • <i>Cisco IOS Switching Services Configuration Guide</i> • <i>Cisco IOS Switching Services Command Reference</i> 	Cisco IOS Switching Services Overview Cisco IOS Switching Paths Cisco Express Forwarding NetFlow Switching MPLS Switching Multilayer Switching Multicast Distributed Switching Virtual LANs LAN Emulation

Table 12 Cisco IOS Release 12.1 Documentation Set (continued)

Books	Major Topics
<ul style="list-style-type: none"> • <i>Cisco IOS Wide-Area Networking Configuration Guide</i> • <i>Cisco IOS Wide-Area Networking Command Reference</i> 	Wide-Area Networking Overview Configuring ATM Configuring Frame Relay Configuring Frame Relay-ATM Interworking Configuring SMDS Configuring X.25 and LAPB
<ul style="list-style-type: none"> • <i>Cisco IOS Configuration Guide Master Index</i> • <i>Cisco IOS Command Reference Master Index</i> • <i>New Features in 12.1-Based Limited Lifetime Releases</i> • <i>New Features in Release 12.1 T</i> • <i>Cisco IOS Debug Command Reference</i> • <i>Cisco IOS Dial Services Quick Configuration Guide</i> • Release Notes (Release note and caveat documentation for 12.1-based releases and various platforms) 	

Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

World Wide Web

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

- <http://www.cisco.com>
- <http://www-china.cisco.com>
- <http://www-europe.cisco.com>

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships 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 as an annual subscription.

Ordering Documentation

Cisco documentation is available in the following ways:

- Registered 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, in North America, by calling 800 553-NETS(6387).

Documentation Feedback

If you are reading Cisco product documentation on the World Wide Web, you can submit technical comments electronically. Click **Feedback** in the toolbar and select **Documentation**. After you complete the form, click **Submit** to send it to Cisco.

You can e-mail your comments to bug-doc@cisco.com.

To submit your comments by mail, use the response card behind the front cover of your document, or write to the following address:

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

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools. For Cisco.com registered users, additional troubleshooting tools are available from the TAC website.

Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information and resources at anytime, from anywhere in the world. This highly integrated Internet application is a powerful, easy-to-use tool for doing business with Cisco.

Cisco.com provides a broad range of features and services to help customers and partners streamline business processes and improve productivity. Through Cisco.com, you can find information about Cisco and our networking solutions, services, and programs. In addition, you can resolve technical issues with online technical support, download and test software packages, and order Cisco learning materials and merchandise. Valuable online skill assessment, training, and certification programs are also available.

Customers and partners can self-register on Cisco.com to obtain additional personalized information and services. Registered users can order products, check on the status of an order, access technical support, and view benefits specific to their relationships with Cisco.

To access Cisco.com, go to the following website:

<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

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

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

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

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

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

Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

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

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.

This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section on page 18.

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