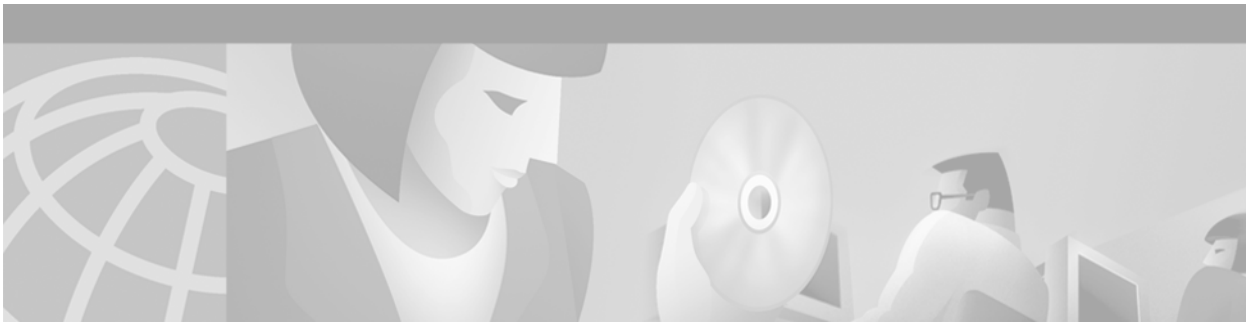

Release Notes for Cisco MC3810 for Cisco IOS Release 12.2 XA

February 9, 2002

Cisco IOS Release 12.2(2) XA5

78-12725-01 Rev. D0

These release notes for the Cisco MC3810 series support Cisco IOS Release 12.2(2) XA5. These release notes are updated as needed.

For a list of the software caveats that apply to Release 12.2(2) XA5, see the *"Caveats for Cisco IOS Release 12.2 XA" section on page 10* and *Caveats for Cisco IOS Release12.2T*. 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 the *Cross-Platform Release Notes for Cisco IOS Release 12.2 T* located on Cisco.com and the Documentation CD-ROM.

Contents

These release notes describe the following topics:

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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 a CPE device 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. 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 login facilities provided by Telnet and rlogin. Three types of configuration interfaces are provided as follows:

- Cisco CLI
- HTTP-based configuration server
- SNMP-based 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 12.2(2) XA5, see the "New and Changed Information" section on page 7 and the "Related Documentation" section on page 14.

System Requirements

This section describes the system requirements for Release 12.2(2) XA5:

Memory Recommendations

Table 1 Cisco IOS Release 12.2 XA Memory Recommendations for the Cisco MC3810 Multiservice Access Concentrator

Image Name	Software Image	Recommended Flash Memory	Recommended DRAM Memory	Runs from
IP	mc3810-i-mz	8 MB	32 MB	RAM
IP Plus	mc3810-is-mz	16 MB	64 MB	RAM
IP Plus IPSec 3DES	mc3810-ik9s-mz	16 MB	64 MB	RAM
IP Plus IPSec 3DES, no ISDN	mc3810-i5k9s-mz	8 MB	32 MB	RAM
IP Plus IPSec 56	mc3810-ik8s-mz	8 MB	32 MB	RAM
IP Plus IPSec 56, no ISDN	mc3810-i5k8s-mz	8 MB	32 MB	RAM
IP Plus VoIP/VoATM	mc3810-a2isv5-mz	16 MB	64 MB	RAM
IP Plus VoIP/VoATM IPSec 3DES	mc3810-a2ik9sv5-mz	16 MB	64 MB	RAM
IP Plus, no ISDN	mc3810-i5s-mz	8 MB	32 MB	RAM
IP/ATM Plus IPSec 3DES	mc3810-a2ik9s-mz	16 MB	64 MB	RAM
IP/ATM Plus IPSec 3DES, no ISDN	mc3810-a2i5k9s-mz	8 MB	32 MB	RAM
IP/ATM Plus IPSec 56, no ISDN	mc3810-a2i5k8s-mz	8 MB	32 MB	RAM
IP/ATM Plus, no ISDN	mc3810-a2i5s-mz	8 MB	32 MB	RAM
Enterprise Plus	mc3810-js-mz	16 MB	64 MB	RAM
Enterprise Plus IPSec 3DES	mc3810-jk9s-mz	16 MB	64 MB	RAM
Enterprise Plus IPSec 56	mc3810-jk8s-mz	16 MB	64 MB	RAM
Enterprise Plus VoIP/VoATM	mc3810-a2jsv5-mz	16 MB	64 MB	RAM
Enterprise Plus/H.323 MCM	mc3810-a2jsv5x-mz	16 MB	64 MB	RAM
Enterprise/ATM Plus IPSec 3DES	mc3810-a2jk9s-mz	16 MB	64 MB	RAM

Hardware Supported

Cisco IOS Release 12.2(2) XA5 supports the Cisco MC3810 multiservice access concentrator. The Cisco MC3810 base chassis is a semifixed 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 concentrators 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 that is not equipped with a functional module is closed off with a removable cover plate.

For detailed descriptions of the new hardware features, see the "New and Changed Information" section on page 7.

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
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[3] to support video codec dialing
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[2] 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 or VCM6, or HCM2 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 Multiservice Access Concentrator

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 EIA/TIA-366 Automatic Calling Equipment (ACE) interface to the DTE port of the videoconferencing equipment[4]	MC3810-VDM=
Analog Personality Modules[5]	1-port E&M analog module	MC3810-APM-EM=
	1-port FXS analog module	MC3810-APM-FXS=
	1-port FXO analog module	MC3810-APM-FXO=
	1-port FXO analog module, approved for United Kingdom	MC3810-FXO-UK=
	1-port FXO analog module, approved for Germany	MC3810-FXO-GER=
	1-port FXO analog module, approved for PR2[6] countries	MC3810-FXO-PR2=
	1-port FXO analog module, approved for PR3[7] countries	MC3810-FXO-PR3=
Voice Compression Modules[8]	2-DSP HCM, 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, supports up to 6 channels[9] 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=

1. Requires one to six APMs and one voice compression module (VCM3 or VCM6).
2. Requires one or two voice compression modules (VCM6) for processed voice.
3. Requires one voice compression module (VCM3 or VCM6) and Cisco IOS Release 12.0(4)T or a later release.
4. 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 EIA/TIA-366 ACE cable (product order number 72-1722-01) to connect the VDM to the videoconferencing equipment RS-366 dialup DTE port.
5. For use with analog voice modules; one AVM requires at least one APM and supports up to six APMs.
6. PR2 countries currently include Australia and New Zealand.
7. PR3 countries currently include Japan and Singapore.
8. 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.
9. 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 router, log in to the router and enter the **show version** EXEC command:

```
router> show version
Cisco Internetwork Operating System Software
IOS (tm) MC3810 Software (mc3810-i-mz), Version 12.2(2) XA5, 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

Features

The 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.

Cisco IOS Release 12.2(2) XA4 supports the same feature sets as Cisco IOS Release 12.2(2) T, but Cisco IOS Release 12.2(2) T can include new features supported by the Cisco MC3810.

Note If you have a Cisco.com login account, you can find image and release information regarding features prior to Cisco IOS Release 12.2(2) T by using the Feature Navigator tool at http://www.cisco.com/go/fn.

Cisco IOS Release 12.2(2) XA4 supports one new feature: Call Admission Control for H.323 VoIP Gateways. This feature is described in the “New and Changed Information” section below and is included in all of the images listed in Table 1.

Caution Cisco IOS images with strong encryption (including, but not limited to 168-bit (3DES) data encryption feature sets) are subject to U.S. 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 U.S. government regulations. When applicable, the purchaser/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.

New and Changed Information

The following sections list the new hardware and software features supported by the Cisco MC3810 for Release 12.2(2) XA5.

New Hardware and Software Features in Cisco IOS Release 12.2(2) XA5

There are no new hardware and software features supported in Cisco IOS Release 12.2(2) XA5.

New Hardware and Software Features in Cisco IOS Release 12.2(2) XA4

There are no new hardware and software features supported in Cisco IOS Release 12.2(2) XA4.

New Hardware and Software Features in Cisco IOS Release 12.2(2) XA3

Cisco IOS Release 12.2(2) XA3 does not support the Cisco MC3810.

New Hardware and Software Features in Cisco IOS Release 12.2(2) XA2

Cisco IOS Release 12.2(2) XA2 does not support the Cisco MC3810.

New Hardware and Software Features in Cisco IOS Release 12.2(2) XA1

There are no new hardware and software features supported in Cisco IOS Release 12.2(2) XA1.

New Hardware Features in Cisco IOS Release 12.2(2) XA

There are no new hardware features supported in Cisco IOS Release 12.2(2) XA.

New Software Features in Cisco IOS Release 12.2(2) XA

The following new software features are supported by the Cisco MC3810 for Cisco IOS Release 12.2(2) XA:

Call Admission Control for H.323 VoIP Gateways

Before the call admission control feature, gateways did not have a mechanism to gracefully prevent calls from entering when certain resources were not available to process the call. This causes the new call to fail with unreported behavior, and could potentially cause the calls that are in progress to have quality related problems.

This feature set provides the ability to support resource-based call admission control processes. These resources include system resources such as CPU, memory, and call volume, and interface resources such as call volume.

If system resources are not available to admit the call, two kinds of actions are provided: system denial (which busyouts all of T1 or E1) or per call denial (which disconnects, hairpins, or plays a message or tone). If the interface-based resource is not available to admit the call, the call is dropped from the session protocol (such as H.323).

User Selected Threshold

This feature allows a user to configure call admission thresholds for local resources as well as memory and CPU resources. The list of local resources that are configured for call admission are described in the command description of "call threshold poll-interval."

With the call admission command, a user is allowed to configure two thresholds, high and low, for each resource. Call treatment is triggered when the current value of a resource goes beyond the configured high. The call treatment remains in effect until current resource value falls below the configured low. Having high and low thresholds prevents call admission flapping and provides hysteresis in call admission decision making.

With the **call spike** command, a user is allowed to configure the limit for incoming calls during a specified time period. A call spike is the term for when a large number of incoming calls arrive from the PSTN in a very short period of time (for example:100 incoming calls in 10 milliseconds).

Configurable Call Treatment

With the call treatment command, users are allowed to select how the call should be treated when local resources are not available to handle the call. For example, when the current resource value for any one of the configured triggers for call admission has reached beyond the configured threshold, the call treatment choices are as follows:

- TDM hairpinning — Hairpins the calls through the POTS dial peer.
- Reject — Disconnects the call.
- Play message or tone — Plays a configured message or tone to the user.

Resource Unavailable Signaling

This feature set supports the autobusyout feature where channels are busied out when local resources are not available to handle the call.

Autobusyout is supported on both channel associated signaling (CAS) and Primary Rate Interface (PRI) channels.

- CAS — Uses busyout to signal "local resources are unavailable."
- PRI — Uses either service messages or disconnect with correct cause-code to signal "resources are unavailable."

PSTN Fallback

The goal of PSTN fallback is to monitor congestion in the IP network and either redirect calls to the PSTN or reject calls based on the network congestion. Calls can be re-routed to an alternate IP destination or to the PSTN if the IP network is found unsuitable for voice traffic at that time. The user defines the congestion thresholds based on the configured network. This functionality enables the service provider to give a reasonable guarantee about the quality of the conversation to their VoIP users at the time of call admission.

Note PSTN fallback does not provide assurances that a VoIP call that proceeds over the IP network is protected from the effects of congestion. This is the function of the other Quality of Service (QoS) mechanisms such as IP Real-Time Transport Protocol (RTP) priority or low latency queuing (LLQ).

PSTN fallback includes the following features:

- Offers flexibility to define the congestion thresholds based on the network.
  - Defines a threshold based on Calculated Planning Impairment Factor (ICPIF), which is derived as part of International Telecommunication Union (ITU) G.113.
  - Defines a threshold based solely on packet delay and loss measurements.
- Uses Response Time Reporter (RTR) probes to provide packet delay, jitter, and loss information for the relevant IP addresses. Based on the packet loss, delay, and jitter encountered by these probes, an ICPIF or delay and loss values are calculated.
- Is supported by calls of any codec. Only G.729 and G.711 have accurately simulated probes. Calls of all other codecs are emulated by a G.711 probe.

Refer to the following document for additional information:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122newft/122limit/122x/122xa/122xa_2/ft_pfavb.htm

Important Notes

Changes to output attenuation Command

In Cisco IOS Release 12.2(2), the range of the **output attenuation** command for voice ports has changed from *0–14* to *–6–14*.

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 and Replacement 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 4.

Table 4 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
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

Note Note Cisco Management Information Base (MIB) User Quick Reference is no longer published. If you have an account with CCO, you can find the current list of MIBs supported by Cisco. To reach the Cisco Network Management Toolkit, go to CCO, press Login, and click to Software Center: Network Mgmt Products: Cisco Network Management Toolkit: Cisco MIB.

Caveats for Cisco IOS Release 12.2 XA

Caveats describe unexpected behavior 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.

All caveats in Cisco IOS Release 12.2 and Cisco IOS Release 12.2 T are also in Cisco IOS Release 12.2(2) XA5.

For information on caveats in Cisco IOS Release 12.2, see *Caveats for Cisco IOS Release 12.2*.

For information on caveats in Cisco IOS Release 12.2 T, see *Caveats for Cisco IOS Release 12.2 T*, which lists severity 1 and 2 caveats and select severity 3 caveats and is located on Cisco.com and the Documentation CD-ROM.

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

Caveat numbers and brief descriptions for Cisco IOS Release 12.2(2) XA5 are listed in Table 5. For details about a particular caveat, go to Bug Toolkit at:

http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl

To access this location, 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 set up an account.

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, l**og 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/cgi-bin/Support/Bugtool/launch_bugtool.pl.

Open Caveats—Cisco IOS Release12.2(2)XA5

There are no open caveats specific to Cisco IOS Release 12.2(2)XA5 that require documentation in the release notes.

Resolved Caveats—Cisco IOS Release12.2(2)XA5

All the caveats listed in Table 5 are resolved in Cisco IOS Release 12.2(2)XA5. This section describes only severity 1 and 2 caveats and select severity 3 caveats.

- SNMP

Table 5 Resolved Caveats for Release 12.2(2) XA5

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 12.2(2) XA4

All the caveats listed in Table 6 are resolved in Cisco IOS Release 12.2(2) XA4. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 6 Open Caveats for Release 12.2(2) XA4

Caveat ID Number	Description
CSCdu20772	Q.SIG for BRI and PRI on Cisco 2600 series and Cisco 3600 series routers: atm_frf11_send_sub_channel failed for TCCS over ATM

Resolved Caveats—Cisco IOS Release 12.2(2) XA4

All the caveats listed in Table 7 are resolved in Cisco IOS Release 12.2(2) XA4. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 7 Resolved Caveats for Release 12.2(2) XA4

Caveat ID Number	Description
CSCdv39711	Outbound modem calls fail with %CSM-1-NO_VDEV: No modems associated:
CSCdu06427	Cleanup fix for CSCdt11503
CSCdv56410	Incorrect DiscwithPI handling causes memory leak and crash
CSCdv65099	OLI-SIP:5400 platform fails to pass valid FG-D oli information
CSCdu81936	Received gratuitous ARP overwrites interface MAC address in ARP tbl
CSCdv42346	All DSLs except primary advertised as OOS in GSM after RLM reinit
CSCdv43578	SIP: Incorrect Timestamps in SIP msgs
CSCdv48261	Improvements to dynamic acls for ios fw
CSCdu76530	Reload of Customer router causes 3810 ATM PVC to go down

Open and Resolved Caveats—Cisco IOS Release 12.2(2) XA3

Cisco IOS Release 12.2(2) XA3 does not support the Cisco MC3810.

Open and Resolved Caveats—Cisco IOS Release 12.2(2) XA2

Cisco IOS Release 12.2(2) XA2 does not support the Cisco MC3810.

Open Caveats—Cisco IOS Release 12.2(2) XA1

All the caveats listed in Table 8 are open in Cisco IOS Release 12.2(2) XA1. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 8 Open Caveats for Cisco IOS Release 12.2(2)XA1

Caveat ID Number	Description
CSCdu20772	atm_frf11_send_sub_channel failed for TCCS over ATM
CSCdu34365	Router crashed when tested with dsp firmware 3.6.8
CSCdu44402	ISDN holding CCBs and call confirm err after interface shut/noshut

Resolved Caveats—Cisco IOS Release 12.2(2) XA1

All the caveats listed in Table 9 are resolved in Cisco IOS Release 12.2(2) XA1. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 9 Resolved Caveats for Cisco IOS Release 12.2(2)XA1

Caveat ID Number	Description
CSCdu46942	NU tone is not heard on ivr calls
CSCdt59455	vty-async virtual-template doesn't work with no peer default ip addr
CSCuk21553	telnet client fails to perform DNS lookup of hostname
CSCdu70661	all channels except 24th channel stay busied out after configuration
CSCdu08214	Calltracker MIB returns NULL for userid when DNIS/ANI is not present
CSCdt93862	Access level issue while using Web interface
CSCdu62721	Candidate fails to bring up B-channels (not du42219)
CSCdu59975	Glare Conditions are not detected in vtsp
CSCdu57066	CONN_LOST event needs to be handled in ACC_FASTSTART_PROGRESS state
CSCdu56186	H323 GW:RSVP and Signal only call cleared by TGW after ACF received
CSCdu82224	V120 calls were mis-identified as PIAFS calls
CSCdu87080	Attach domain name to TGCP
CSCdv01493	NAS Send MLP bundle ID for non-MLP VPDN call.
CSCdu09342	ISDN network-side continuously sends RESTART after user-side reloads
CSCdu30345	DSP stopped collection digits - phone # with 0 length
CSCdu79506	Not able to process Piggyback message when running MGCP/NCS 1.0
CSCdu65104	MC3810 crashes @ m860_interrupt

Open Caveats—Cisco IOS Release 12.2(2) XA

All the caveats listed in Table 10 are open in Cisco IOS Release 12.2(2) XA. This table lists only severity 1 and 2 caveats and select severity 3 caveats.

Table 10 Open Caveats for Cisco IOS Release 12.2(2)XA

Caveat ID Number	Description
CSCdu343	Router crashed when tested with dsp firmware 3.6.8.
CSCdu207	atm_frf11_send_sub_channel failed for TCCS over AT.

Resolved Caveats—Cisco IOS Release 12.2(2) XA

There are no resolved caveats specific to Cisco IOS Release 12.2(2) XA that require documentation in the release notes.

Related Documentation

The following sections describe the documentation available for the Cisco MC3810. These documents consist of hardware and software installation guides, Cisco IOS configuration guides 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 these documents:

- Release-Specific Documents, page 14
- Platform-Specific Documents, page 15
- Cisco IOS Software Documentation Set, page 15

Release-Specific Documents

The following documents are specific to Cisco IOS Release 12.2 and are located on Cisco.com and the Documentation CD-ROM:

- *Cross-Platform Release Notes for Cisco IOS Release 12.2* and *Cross-Platform Release Notes for Cisco IOS Release 12.2 T*

  On Cisco.com at:

  Technical Documents: **Cisco IOS Software**: **Cisco IOS Release 12.2: Release Notes: Cross-Platform Release Notes**

  On the Documentation CD-ROM at:

  Cisco Product Documentation: Cisco IOS Software Configuration: **Cisco IOS Release 12.2: 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 12.2 XA" section on page 10

  As a supplement to the caveats listed in Caveats for Cisco IOS Release 12.2 XA in these release notes, see *Caveats for Cisco IOS Release 12.2* and *Caveats for Cisco IOS Release 12.2 T*, which contain caveats applicable to all platforms for all maintenance releases of Cisco IOS Release 12.2 and Cisco IOS Release 12.2 T.

  On Cisco.com at:

  Technical Documents: Cisco IOS Software: **Cisco IOS Release 12.2: Release Notes: Caveats**

  On the Documentation CD-ROM at:

  Cisco Product Documentation: Cisco IOS Software Configuration: **Cisco IOS Release 12.2: 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/cgi-bin/Support/Bugtool/launch_bugtool.pl.

Platform-Specific Documents

These documents are available for the Cisco MC3810 on Cisco.com and the Documentation CD-ROM:

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

  On Cisco.com at:

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

  On the Documentation CD-ROM at:

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

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.

The Cisco IOS software documentation set is available on Cisco.com and on the Documentation CD-ROM.

On Cisco.com at:

Technical Documents: Cisco IOS Software: Cisco IOS Release 12.2: Configuration Guides and Command References

On the Documentation CD-ROM at:

Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 12.2: Configuration Guides and Command References

Release 12.2 Documentation Set

Table 11 lists the contents of the Cisco IOS Release 12.2 software documentation set, which is available in both electronic and printed form.

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 12.2

On the Documentation CD-ROM at:

Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 12.2

Table 11 Cisco IOS Release 12.2 Documentation Set

Books	Major Topics
• *Cisco IOS Configuration Fundamentals Configuration Guide* • *Cisco IOS Configuration Fundamentals Command Reference*	Cisco IOS User Interfaces File Management System Management
• *Cisco IOS Bridging and IBM Networking Configuration Guide* • *Cisco IOS Bridging and IBM Networking Command Reference, Volume 1 of 2* • *Cisco IOS Bridging and IBM Networking Command Reference, Volume 2 of 2*	Transparent Bridging SRB Token Ring Inter-Switch Link Token Ring Route Switch Module RSRB DLSw+ Serial Tunnel and Block Serial Tunnel LLC2 and SDLC IBM Network Media Translation SNA Frame Relay Access NCIA Client/Server Airline Product Set DSPU and SNA Service Point SNA Switching Services Cisco Transaction Connection Cisco Mainframe Channel Connection CLAW and TCP/IP Offload CSNA, CMPC, and CMPC+ TN3270 Server

Table 11 Cisco IOS Release 12.2 Documentation Set (continued)

Books	Major Topics
• *Cisco IOS Dial Technologies Configuration Guide* • *Cisco IOS Dial Technologies Command Reference*	Preparing for Dial Access Modem and Dial Shelf Configuration and Management ISDN Configuration Signaling Configuration Dial-on-Demand Routing Configuration Dial Backup Configuration Dial Related Addressing Service Virtual Templates, Profiles, and Networks PPP Configuration Callback and Bandwidth Allocation Configuration Dial Access Specialized Features Dial Access Scenarios
• *Cisco IOS Interface Configuration Guide* • *Cisco IOS Interface Command Reference*	LAN Interfaces Serial Interfaces Logical Interfaces
• *Cisco IOS IP Configuration Guide* • *Cisco IOS IP Command Reference, Volume 1 of 3: Addressing and Services* • *Cisco IOS IP Command Reference, Volume 2 of 3: Routing Protocols* • *Cisco IOS IP Command Reference, Volume 3 of 3: Multicast*	IP Addressing and Services IP Routing Protocols IP Multicast
• *Cisco IOS AppleTalk and Novell IPX Configuration Guide* • *Cisco IOS AppleTalk and Novell IPX Command Reference*	AppleTalk Novell IPX
• *Cisco IOS Apollo Domain, Banyan VINES, DECnet, ISO CLNS, and XNS Configuration Guide* • *Cisco IOS Apollo Domain, Banyan VINES, DECnet, ISO CLNS, and XNS Command Reference*	Apollo Domain Banyan VINES DECnet ISO CLNS XNS
• *Cisco IOS Voice, Video, and Fax Configuration Guide* • *Cisco IOS Voice, Video, and Fax Command Reference*	Voice over IP Call Control Signaling Voice over Frame Relay Voice over ATM Telephony Applications Trunk Management Fax, Video, and Modem Support Debit Card Applications TCL IVR Applications Configuring Media Gateway Control Protocol and Related Protocols Dial Plans, Dial Peers, and Digit Manipulation SIP

Table 11 Cisco IOS Release 12.2 Documentation Set (continued)

Books	Major Topics
• *Cisco IOS Quality of Service Solutions Configuration Guide* • *Cisco IOS Quality of Service Solutions Command Reference*	Packet Classification Congestion Management Congestion Avoidance Policing and Shaping Signaling Link Efficiency Mechanisms
• *Cisco IOS Security Configuration Guide* • *Cisco IOS Security Command Reference*	AAA Security Services Security Server Protocols Traffic Filtering and Firewalls IP Security and Encryption Passwords and Privileges Neighbor Router Authentication IP Security Options Supported AV Pairs
• *Cisco IOS Switching Services Configuration Guide* • *Cisco IOS Switching Services Command Reference*	Cisco IOS Switching Paths NetFlow Switching Multiprotocol Label Switching Multilayer Switching Multicast Distributed Switching Virtual LANs LAN Emulation
• *Cisco IOS Wide-Area Networking Configuration Guide* • *Cisco IOS Wide-Area Networking Command Reference*	ATM Broadband Access Frame Relay SMDS X.25 and LAPB
• *Cisco IOS Mobile Wireless Configuration Guide* • *Cisco IOS Mobile Wireless Command Reference*	General Packet Radio Service
• *Cisco IOS Terminal Services Configuration Guide* • *Cisco IOS Terminal Services Command Reference*	ARA LAT NASI Telnet TN3270 XRemote X.28 PAD Protocol Translation
• *Cisco IOS Configuration Guide Master Index* • *Cisco IOS Command Reference Master Index* • *Cisco IOS Debug Command Reference* • *Cisco IOS Software System Error Messages* • New Features in 12.2-Based Limited Lifetime Releases • New Features in Release 12.2 T • Release Notes (Release note and caveat documentation for 12.2-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 with the documents listed in the "Related Documentation" section on page 14.