



Release Notes for Cisco AS5800 Universal Access Servers for Cisco IOS Release 12.1 XV

February 14, 2002

Cisco IOS Release 12.2(2) XB3

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These release notes for the Cisco AS5800 universal access servers describe the enhancements provided in Cisco IOS Release 12.1(5) XV3. These release notes are updated as needed.

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

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Introduction

The Cisco AS5800 access server and Cisco 5800 voice gateway are high-density, Voice, Integrated Services Digital Network (ISDN), and modem Wide Area Network (WAN) aggregation systems that provide voice and digital and analog call termination. They are intended to be used as a service provider dial point-of-presence (POP) or centralized enterprise dial gateway. The Cisco AS5800 consists of a dial shelf and one or two router shelves:

- The Cisco DS5814 (dial shelf) has 14 slots and can support 1 or 2 dial shelf controller cards and up to 12 feature cards to provide full analog modem, voice/fax, and ISDN coverage. The dial shelf supports up to 2047 simultaneous data calls or up to 1344 voice calls. Analog calls are terminated by a feature card that is loaded with integrated modems. Voice calls are terminated by feature cards that are loaded with voice DSPs.



Note The Cisco DS5814 supports both high-complexity and medium-complexity voice cards. You cannot mix high-complexity and medium-complexity voice cards on the same dial shelf unless the dial shelf is in split mode. If the dial shelf is in split mode, each split shelf must have voice cards of the same complexity type.

ISDN calls are terminated onboard the trunk card on High-Level Data Link Control (HDLC) controllers. The E1 trunk, T1 trunk, and the CT3 trunk cards include channel service units (CSUs) and have either 12 E1 ports, 12 T1 ports, or 28 T1 ports (within the CT3 trunk) that can operate as Primary Rate Interfaces (PRIs), inter-machine trunks (IMTs), or channelized interfaces in any combination. The specific trunk card limitations are described in [Table 2, Part 1](#).



Note T1 and E1 cards are not supported in the same box.

- The Cisco RS7206VXR (router shelf) contains a network processing engine, an I/O controller, and the egress interfaces, such as High-Speed Serial Interface (HSSI), Fast Ethernet (FE), Gigabit Ethernet (GE), and Asynchronous Transfer Mode (ATM), and supports either 280W AC-input or 280W DC-input redundant power. The router shelf also may contain one or two dial shelf interconnect port adapters each with a single RJ-45 receptacle, which is used to connect the router shelf to the Cisco 5814 dial shelf. The interconnect port adapter connects directly to the dial shelf controller card on the dial shelf via a Cisco-proprietary cable, customized with jack screws to secure the connection. You must use this specially designed cable that ships with your interconnect port adapter. Each router shelf can only be connected to one dial shelf controller card. If the dial shelf configured in split mode, it must be connected to two separate router shelves.



Note The router shelf is only supported for routing data to and from the dial shelf. The router should not be used with multiple port adapter interfaces to route LAN traffic between multiple networks.

The AC-input power shelf is an optional component of the Cisco AS5800 and is used to convert AC-input power into DC-output power for the DC-powered Cisco 5814 dial shelf. The AC-input power shelf contains two AC-input power supplies.

The AC-input to DC-output connection supplies –48V DC-output power to the dial shelf power entry modules (PEMs). The PEMs receive the –48V and transmit power to the filter module. Power flows through the filter module to the backplane, where it is distributed to the dial shelf controller card(s) and feature cards.

Cisco AS5800 Voice Feature Cards

The Cisco AS5800 Voice Feature Cards are full-featured voice processing cards. Voice processing capabilities include Voice Activity Detection (VAD), comfort noise generation, adaptive jitter buffering, programmable 16 and 32 ms echo cancellation, programmable frame size, and Dual Tone Multiple Frequency (DTMF) detection and generation. The Cisco AS5800 Voice Feature cards offer industry-leading DSP density and a wide range of VoIP codecs.

Medium-complexity Voice Feature Cards support 336 or 192 sessions per card. The medium-complexity VFCs support only codecs that require 20-MIPS or less per session including G.711, G.729a, and G.726. Their part numbers are DS58-336-MC-VOX and DS58-192-MC-VOX, respectively.

High-complexity Voice Feature Cards support 192 or 92 sessions per card, the high-complexity VFCs support all types of codecs including G.711, G.729a, G.726, G.723.1, G.728 and G.729. Their part numbers are DS58-192VOX and DS58-96VOX, respectively.

For more information on the Cisco AS5800, refer to the *Cisco AS5800 Universal Access Server Operations, Administration, Maintenance, and Provisioning Guide*.

For information on new features and Cisco IOS commands supported by Cisco IOS Release 12.1(5) XV3, see the “[New and Changed Information](#)” section on page 8 and the “[Related Documentation](#)” section on page 15.

System Requirements

This section describes the system requirements for Cisco IOS Release 12.1 XV:

- [Memory Requirements, page 3](#)
- [Supported Hardware, page 4](#)
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Memory Requirements

[Table 1](#) lists memory requirements for the Cisco AS5800.

Table 1 Cisco AS5800 Memory Requirements

System Components	Feature Set	Image Name	Software Image	Minimum Flash	Minimum DRAM
Cisco AS5800	IP Standard	IP Plus	c5800-p4-mz	16 MB	128 MB
Dial Shelf: Cisco 5814		IP Plus	dsc-c5800-mz	8 MB	32 MB ¹

1. Cisco IOS Release 12.1(5) XV3 may be used with the older RS7206 (NPE-200 based) router shelf as long as the shelf has 128M of DRAM installed.

Supported Hardware

Cisco IOS Release 12.1(5) XV3 supports the Cisco AS5800:

- Cisco DS5814
- Cisco RS7206
- Cisco RS7206 VXR

For detailed descriptions of the new hardware features, see the “[New and Changed Information](#)” section on page 8. [Table 2, Part 1](#) and [Table 2, Part 2](#) detail the supported interfaces, cards, options, router shelf support, and port adapters.

Table 2, Part 1 **Supported Hardware for the Cisco AS5800**

Interfaces, Cards, Options, and Support	Description
Interfaces	12-port T1 or E1 termination card
	1- port channelized T3 (CT3) termination card
Modem Cards	72-port modem card (HMM) ¹
	144-port modem card (DMM) ²
	324-port modem card (UPC)
Voice Feature Cards (VFCs) ³	96-port voice card (96VOX)
	192-port voice card (192VOX)
	192-port medium complexity voice card (192-MC-VOX)
	336-port medium complexity voice card (336-MC-VOX)
Dial Shelf	DS5814 Dial Shelf
	Dial Shelf Controller (DSC) card
Optional AC-input Power Shelves	Two AC-input power supplies
Router Shelf Support	RS7206VXR (NPE-300 based) Router Shelf
	RS7206 (NPE-200 based) Router Shelf
	With any Cisco AS5800 software image, the maximum hardware configuration with an RS7206 is one CT3 or two T1/E1 trunk cards and three UPCs, five DMMs or 10 HMMs for a maximum of 28 24 T1 / 24 E1 controllers and 720 modems.
	If a larger configuration is desired, a second RS7206 router shelf can be configured in split-shelf mode, or a single RS7206 VXR may be used to support up to 1344 modem sessions. Configurations above 1344 modem sessions require two RS7206VXR router shelves in split-shelf mode.
	The Cisco AS5800/Voice Gateway can support 672 voice calls per RS7206VXR router shelf. 1344 voice calls require two RS7206VXR router shelves configured in split-shelf mode. RS7206 router shelves do not support voice services.

1. 72-port modem card requires 32M DRAM.

2. 144-port modem card requires 64M DRAM.

3. High-complexity voice cards (with codecs G.723.1, G.728, or G.729) require greater resources to perform complex coding and decoding that results in Voice-handling capacity reduction. Medium-complexity voice cards (with codecs G.711, G.726, or G.729a) can manage twice the number of Voice channels than high-complexity voice cards can.

Table 2, Part 2 Supported Hardware for the Cisco AS5800

Router Shelf	Port Adapter	Description
RS7206 Router Shelf	PA-100VG	Single-Port 100 VG Port Adapter
	PA-12E/2FE	Dual-Wide Ethernet-switch Port Adapter
	PA-1C-E	1-Port ESCON Channel Port Adapter
	PA-2CE1/PRI-120	2-Port Channelized E1/PRI Port Adapter, 120 ohm
	PA-2CE1/PRI-75	2-Port Channelized E1/PRI Port Adapter, 75 ohm
	PA-2CT1/PRI	2-Port Channelized T1/PRI Port Adapter
	PA-2E3	2-Port E3 Serial Port Adapter with E3 DSU
	PA-2FEISL-FX	2-Port Fast Ethernet/ISL 100BaseTx Port Adapter
	PA-2FEISL-TX	2-Port Fast Ethernet/ISL 100BaseFx Port Adapter
	PA-2H	Port Adapter, 2-Port HSSI
	PA-4B-U	4-Port BRI Port Adapter, U Interface
	PA-4E	Port Adapter, 4-Port Ethernet,10BT
	PA-4R	Port Adapter, 4-Port Token Ring (Older Hermon Based)
	PA-4R-DTR	Port Adapter, 4-Port Token Ring (Hawkeye Based)
	PA-4R-FDX	Port Adapter, 4 Port Token Ring 4/16Mbps, Full Duplex
	PA-4T+	Port Adapter, 4-Port Serial,5IN1
	PA-5EFL	Port Adapter, 5-Port Ethernet,10FL
	PA-8B-S/T	8-Port BRI Port Adapter, S/T Interface
	PA-8E	Port Adapter, 8-Port Ethernet,10BT
	PA-8T-232	Port Adapter, 8-Port Serial,232
	PA-8T-V35	Port Adapter, 8-Port Serial,V.35
	PA-8T-X21	Port Adapter, 8-Port Serial,X.21
	PA-A1-OC3MM	1-Port ATM OC3 Multi-Mode Port Adapter
	PA-A1-OC3SM	1-Port ATM OC3 Single Mode Intermediate Reach Port Adapter
	PA-A2-4E1XC-E3ATM	CES Port Adapter E3/E1 120 ohms
	PA-A2-4E1XC-OC3SM	CES OC3 Port Adapter 4E1 Ports 120 ohms
	PA-A2-4T1C-OC3SM	ATM CES Port Adapter, 4T1 CES Ports and 1 OC3 ATM SM Port
	PA-A2-4T1C-T3ATM	ATM CES Port Adapter, 4T1 CES Ports and 1 T3 ATM Port
	PA-A3-E3	1-Port ATM Enhanced E3 Port Adapter
	PA-A3-OC3MM	1-Port ATM Enhanced OC3c/STM1 Multi-Mode
	PA-A3-OC3SMI	1-Port ATM Enhanced OC3c/STM1 Single Mode
	PA-A3-OC3SML	1-Port ATM Enhanced OC3c/STM1 Single Mode
	PA-A3-T3	1-Port ATM Enhanced DS3 Port Adapter
	PA-CT3/4T1	Channelized DS3 Port Adapter with 4 T1
PA-E3	1-Port E3 Serial Port Adapter with E3 DSU	
PA-F/FD-MM	Port Adapter,1-Port FDDI Full Duplex Multi-Mode	

Table 2, Part 2 Supported Hardware for the Cisco AS5800 (continued)

Router Shelf	Port Adapter	Description
RS7206 Router Shelf (continued)	PA-F/FD-SM	Port Adapter,1-Port FDDI Full Duplex Single-Mode
	PA-FE-FX	Port Adapter,1-Port FE, 100FX
	PA-FE-TX	Port Adapter,1-Port FE,100TX
	PA-F-MM	Port Adapter,1-Port FDDI Multi-Mode
	PA-F-SM	Port Adapter,1-Port FDDI Single Mode
	PA-H	Port Adapter,1-Port HSSI
	PA-POS-OC3MM	1-Port Packet/SONET OC3c/STM1 Multi-Mode Port Adapter
	PA-POS-OC3SMI	1-Port Packet/SONET OC3c/STM1 Single Mode (IR) Port Adapter
	PA-POS-OC3SML	1-Port Packet/SONET OC3c/STM1 Single Mode (LR) Port Adapter
	PA-T3	1-Port T3 Serial Port Adapter with T3 DSUs
	PA-T3+	1-Port T3 Serial Port Adapter Enhanced
	SA-COMP/1	Service Adapter, Compression (64 VCs Stac)
	SA-COMP/4	Service Adapter, Compression (256 VCs Stac)
	RS7206VXR Router Shelf	PA-100VG
PA-12E/2FE		Dual-Wide Ethernet-Switch Port Adapter
PA-1C-E		1-Port ESCON Channel Port Adapter
PA-2E3		2-Port E3 Serial Port Adapter with E3 DSU
PA-2FEISL-FX		2-Port Fast Ethernet/ISL 100BaseTx Port Adapter
PA-2FEISL-TX		2-Port Fast Ethernet/ISL 100BaseFx Port Adapter
PA-2H		Port Adapter, 2-Port HSSI
PA-4B-U		4-Port BRI Port Adapter, U Interface
PA-4E		Port Adapter, 4-Port Ethernet,10BT
PA-4R-DTR		Port Adapter, 4-Port Token Ring (Hawkeye Based)
PA-4T+		Port Adapter, 4-Port Serial,5in1
PA-5EFL		Port Adapter, 5-Port Ethernet,10FL
PA-8B-S/T		8-Port BRI Port Adapter, S/T Interface
PA-8E		Port Adapter, 8-Port Ethernet,10BT
PA-8T-232		Port Adapter, 8-Port Serial,232
PA-8T-V35		Port Adapter, 8-Port Serial,V.35
PA-8T-X21		Port Adapter, 8-Port Serial,X.21
PA-A1-OC3MM		1-Port ATM OC3 Multi-Mode Port Adapter
PA-A1-OC3SM		1-Port ATM OC3 Single Mode Intermediate Reach Port Adapter
PA-A2-4E1XC-E3ATM		CES Port Adapter E3/E1 120 ohms
PA-A2-4E1XC-OC3SM		CES OC3 Port Adapter 4E1 Ports 120 ohms
PA-A2-4T1C-OC3SM		ATM CES Port Adapter, 4T1 CES Ports and 1 OC3 ATM SM Port
PA-A2-4T1C-T3ATM		ATM CES Port Adapter, 4T1 CES Ports and 1 T3 ATM Port

Table 2, Part 2 Supported Hardware for the Cisco AS5800 (continued)

Router Shelf	Port Adapter	Description
RS7206VXR Router Shelf (continued)	PA-A3-E3	1-Port ATM Enhanced E3 Port Adapter
	PA-A3-OC3MM	1-Port ATM Enhanced OC3c/STM1 Multi-Mode
	PA-A3-OC3SMI	1-Port ATM Enhanced OC3c/STM1 Single Mode
	PA-A3-OC3SML	1-Port ATM Enhanced OC3c/STM1 Single Mode
	PA-A3-T3	1-Port ATM Enhanced DS3 Port Adapter
	PA-E3	1-Port E3 Serial Port Adapter with E3 DSU
	PA-FE-FX	Port Adapter, 1-Port FE, 100FX
	PA-FE-TX	Port Adapter, 1-Port FE, 100TX
	PA-GE	One-Port Gigabit Ethernet PA for 7200VXR
	PA-H	Port Adapter, 1-Port HSSI
	PA-MC-8E1/120	8-Port Multichannel E1 Port Adapter
	PA-POS-OC3MM	1-Port Packet/SONET OC3c/STM1 Multi-Mode Port Adapter
	PA-POS-OC3SMI	1-Port Packet/SONET OC3c/STM1 Single Mode (IR) Port Adapter
	PA-POS-OC3SML	1-Port Packet/SONET OC3c/STM1 Single Mode (LR) Port Adapter
	PA-T3	1-Port T3 Serial Port Adapter with T3 DSUs
	PA-T3+	1-Port T3 Serial Port Adapter Enhanced

Determining the Software Version

To determine the version of Cisco IOS software running on your Cisco AS5800, log in to the Cisco AS5800 and enter the **show version EXEC** command:

```
router> show version
Cisco Internetwork Operating System Software
IOS (tm) 12.1 Software (C5800-p4-mz), Version 12.1(5) XV3, 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

Microcode and Modem Code Software

Microcode software images are bundled with the system software image. Bundling eliminates the need to store separate microcode images. When the router starts, the system software unpacks the microcode software bundle and loads the proper software on all the interface processor boards.

You could have received a later version of modem code than the one bundled with the Cisco IOS software. The modem code in Flash memory is mapped to the modems. Unless you fully understand how Cisco IOS software uses modem code, it is important to keep the factory configuration.

To obtain the latest Cisco IOS software release compatible with Cisco MICA portware, refer to the *Cisco AS5x00 MICA 6-Port and 12-Port Modem Module Portware/Cisco IOS Software Compatibility Matrixes* at http://www.cisco.com/univercd/cc/td/doc/product/access/acs_serv/5300/sw_conf/sw_ports/compmat/mca12prt.htm.

The modem code release notes are on Cisco.com and the Documentation CD-ROM.

On Cisco.com at:

Technical Documents: Access Servers and Access Routers: Access Servers: Cisco AS5800: Configuration Documents for Cisco AS5800: Port Information

On the Documentation CD-ROM at:

Cisco Product Documentation: Access Servers and Access Routers: Access Servers: Cisco AS5800: Configuration Documents for Cisco AS5800: Port Information

Feature Set Tables

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.



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, the 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.

New and Changed Information

The following sections list the new hardware and software features supported by the Cisco AS5800 for Cisco IOS Release 12.1(5) XV3.

New Hardware and Software Features in Cisco IOS Release 12.1(5) XV3

No new hardware and software features are supported by the Cisco AS5800 for Cisco IOS Release 12.1(5)XV3.

New Hardware and Software Features in Cisco IOS Release 12.1(5) XV2

No new hardware and software features are supported by the Cisco AS5800 for Cisco IOS Release 12.1(5)XV2.

New Hardware Features in Cisco IOS Release 12.1(5) XV1

The following new hardware features are supported by the Cisco AS5800 for Cisco IOS Release 12.1(5)XV1.

Router Shelf Redundancy for Cisco AS5800

This feature provides router-shelf redundancy by using a second router shelf that automatically takes over the other shelf's resources (dial-shelf cards) if it appears that the other router has died. The failover is disruptive in that there is no attempt to maintain calls that were established on the failing router; the dial-shelf cards controlled by the failing router are restarted under the control of the backup router and hence become available again.

Two router shelves are connected to the same dial-shelf (as in split mode), but with only one router active at a time. Both router shelves are configured for normal mode as opposed to split mode. Each router shelf contains the same configuration, being whatever configuration is appropriate for the full set of cards in the dial shelf. The active router controls all the cards in the dial shelf, while the other router functions purely as a backup. If the active router fails, all dial-shelf cards restart under the control of the backup router, which then functions as the active router.

New Software Features in Cisco IOS Release 12.1(5) XV1

The following new software features are supported by the Cisco AS5800 for Cisco IOS Release 12.1(5) XV1.

Exec VPDN Support

Exec VPDN (Virtual Private Dialup Networks) provides dial-up users with a shell-based login, or exec-login, onto the NAS. The Exec VPDN shell-based login authenticates users in a character mode connection and then Exec VPDN initiates a PPP session and tunnels to a remote home gateway. Exec VPDN addresses the previous login limitation where user sessions tunneled directly to the home gateway via L2TP or L2F could not employ character-mode logins once the PPP session started.

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

Cisco IOS Release 12.1(5)XV2 does not support the Cisco AS5800.

MIBs

Current MIBs

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>.

The Cisco AS5800 support the following MIBs:

- AAA-SESSION-MIB
- AAA-SERVER-MIB
- ATM-MIB
- CALL-TRACKER-MIB
- CISCO-ATM2-MIB
- CISCO-ATM-IF-PHYS-MIB
- CISCO-ATM-SIG-DIAG-MIB
- CISCO-BULK-FILE-MIB
- CISCO-C8500-REDUNDANCY-MIB
- CISCO-CALL-HISTORY-MIB.my
- CISCO-CIRCUIT-INTERFACE-MIB
- CISCO-DIAL-CONTROL-MIB
- CISCO-DSP-MGMT-MIB
- CISCO-ENTITY-MIB
- CISCO-ENTITY-FRU-CONTROL-MIB
- CISCO-ENVMON-MIB.my
- CISCO-FRAME-RELAY-MIB
- CISCO-ISDN-MIB
- CISCO-MEMORY-POOL-MIB.my
- CISCO-MODEM-MGMT-MIB
- CISCO-PING-MIB
- CISCO-POP-MGMT-MIB
- CISCO-QUEUE-MIB.my
- CISCO-SMI.my
- CISCO-TC
- CISCO TOKEN RING MIB
- CISCO-SYSLOG-MIB
- CISCO-VPDN-MGMT-MIB
- DIAL-CONTROL-MIB
- ENTITY-MIB

- EXPRESSION-MIB
- FDDI-SMT73-MIB
- FSIP-MIB
- IF-MIB.mib
- OLD-CISCO-CPU-MIB
- OLD-CISCO-CHASSIS-MIB
- OLD-CISCO-IP-MIB
- OLD-CISCO-MEMORY-MIB
- PROCESS-MIB
- RFC-1212.mib
- RFC-1215.mib
- RFC1155-SMI.mib
- RFC1213-MIB.mib
- RFC1354-MIB.mib
- RFC1406-MIB
- RFC1407-MIB
- RFC1398-MIB
- RTT Mon MIB
- SONET-MIB

Important Information

The following section contains important notes about Cisco IOS Release 12.1(5) XV3 that can apply to the Cisco AS5800.

Caveat CSCdr91706 and IOS HTTP Vulnerability

A defect in multiple releases of Cisco IOS software will cause a Cisco router or switch to halt and reload if the IOS HTTP service is enabled, browsing to `http://router-ip/anytext?/` is attempted, and the enable password is supplied when requested. This defect can be exploited to produce a denial of service (DoS) attack.

The vulnerability, identified as Cisco caveat CSCdr91706, affects virtually all mainstream Cisco routers and switches running Cisco IOS software releases 12.0 through 12.1, inclusive. This is not the same defect as CSCdr36952.

The vulnerability has been corrected and Cisco is making fixed releases available for free to replace all affected IOS releases. Customers are urged to upgrade to releases that are not vulnerable to this defect as shown in detail below.

This vulnerability can only be exploited if the enable password is known or not set.

You are strongly encouraged to read the complete advisory, which is available at <http://www.cisco.com/warp/public/707/ioshttpserverquery-pub.shtml>.

Caveats

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.

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

All caveats in Cisco IOS Release 12.1 and Cisco IOS Release 12.1 T are also in Cisco IOS Release 12.1(5) XV3.

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

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.



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, go to Cisco.com and press **Login**. Then go to **Software Center: Cisco IOS Software: Cisco IOS Bugtool Navigator II**. Another option is to go to <http://www.cisco.com/support/bugtools/>.

Resolved Caveats—Cisco IOS Release 12.1(5) XV4

All the caveats listed in this section are resolved in Cisco IOS Release 12.1(5) XV3. This section describes only severity 1 and 2 caveats and select severity 3 caveats.

- 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) XV3

There are no open caveats specific to Cisco IOS Release 12.1(5) XV3 that require documentation in the release notes.

Resolved Caveats—Cisco IOS Release 12.1(5) XV3

All the caveats listed in this section are resolved in Cisco IOS Release 12.1(5) XV3. This section describes only severity 1 and 2 caveats and select severity 3 caveats.

- 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—Release 12.1(5) XV2

This section documents possible unexpected behavior by Cisco IOS Release 12.1(5) XV2 and describes only severity 1 and 2 caveats and select severity 3 caveats.

- CSCds64859

On a Cisco AS5800 or Cisco AS5850 access server running Cisco IOS Release 12.1(5) XV2, for V.110 calls, the exec command **show isdn status** displays the “calltype” field incorrectly as **VOICE** instead of **V.110**.

Workaround: Use the **show spe** exec command to determine the call type for each port.

Resolved Caveats—Release 12.1(5) XV2

All the caveats listed in this section are resolved in Cisco IOS Release 12.1(5) XV2. This section describes only severity 1 and 2 caveats and select severity 3 caveats.

- CSCds04747

Cisco IOS software contains a flaw that permits the successful prediction of TCP Initial Sequence Numbers.

This vulnerability is present in all released versions of Cisco IOS software running on Cisco routers and switches. It only affects the security of TCP connections that originate or terminate on the affected Cisco device itself; it does not apply to TCP traffic forwarded through the affected device in transit between two other hosts.

To remove the vulnerability, Cisco is offering free software upgrades for all affected platforms. The defect is described in DDTS record CSCds04747.

Workarounds are available that limit or deny successful exploitation of the vulnerability by filtering traffic containing forged IP source addresses at the perimeter of a network or directly on individual devices.

This notice will be posted at <http://www.cisco.com/warp/public/707/ios-tcp-isn-random-pub.shtml>.

This caveat is resolved in Cisco IOS Release 12.1(5) XV2.

- CSCdt63267

On a Cisco AS5800 access server running Cisco IOS Release 12.2(0) or 12.1(5)XV, inserting or removing (OIR'ing) a 72-port modem card (HMM) or a 144-port modem card (DMM) causes a router shelf crash.

There is no workaround.

This caveat is resolved in Cisco IOS Release 12.1(5) XV2.

- CSCdt65770

A 324-port modem card (UP324) crash on a Cisco AS5800 running Cisco IOS Release 12.1(5)XV1 or 12.1(5)XM results in the router shelf hanging for approximately four minutes, then crashing.

Issuing the **hw-module slot x reload** on the router shelf to reload a 324-port modem card, has the same effect.

Potentially, any command that reloads a 324-port modem card could have this effect. This does not occur with 72-port modem cards (HMMs) or the 144-port modem cards (DMMs).

There is no workaround.

This caveat is resolved in Cisco IOS Release 12.1(5) XV2.

- CSCdt65798

On an AS5800 access server running Cisco IOS Release 12.1(5)XV or 12.1(5)XV1 various **show modem** related commands result in spurious accesses and display incorrect information.

This problem occurs only for 72-port modem cards (HMM) and 144-port modem cards (DMM). It is not configuration dependant and will occur whenever 72-port or 144-port modem cards are installed and various **show modem** related commands are issued.

The exact list of **show modem** commands that cause this problem are not known, but includes the following commands:

show modem summary

show mode summary stat

There is no workaround.

This caveat is resolved in Cisco IOS Release 12.1(5) XV2.

Open Caveats—Release 12.1(5) XV1

This section documents possible unexpected behavior by Cisco IOS Release 12.1(5) XV1 and describes only severity 1 and 2 caveats and select severity 3 caveats.

- CSCds64859

On a Cisco AS5800 or Cisco AS5850 access server running Cisco IOS Release 12.1(5) XV1, for V.110 calls, the exec command **show isdn status** displays the “calltype” field incorrectly as **VOICE** instead of **V.110**.

Workaround: Use the **show spe** exec command to determine the call type for each port.

Resolved Caveats—Release 12.1(5) XV1

All the caveats listed in this section are closed or resolved in Cisco IOS Release 12.1(5) XV1. This section describes only severity 1 and 2 caveats and select severity 3 caveats.

- CSCds04747

Cisco IOS software contains a flaw that permits the successful prediction of TCP Initial Sequence Numbers.

This vulnerability is present in all released versions of Cisco IOS software running on Cisco routers and switches. It only affects the security of TCP connections that originate or terminate on the affected Cisco device itself; it does not apply to TCP traffic forwarded through the affected device in transit between two other hosts.

To remove the vulnerability, Cisco is offering free software upgrades for all affected platforms. The defect is described in DDTS record CSCds04747.

Workarounds are available that limit or deny successful exploitation of the vulnerability by filtering traffic containing forged IP source addresses at the perimeter of a network or directly on individual devices.

This notice will be posted at <http://www.cisco.com/warp/public/707/ios-tcp-isn-random-pub.shtml>.

This caveat is resolved in Cisco IOS Release 12.1(5)XV1.

Open and Resolved Caveats—Release 12.1(5) XV

Cisco IOS Release 12.1(5) XV does not support the Cisco AS5800.

Related Documentation

The following sections describe the documentation available for the Cisco AS5800. These documents consist of hardware and software installation guides, Cisco IOS configuration and command references, system error messages, and other documents.

Documentation is available as printed manuals or electronic documents.

Use these release notes with these documents:

- [Release-Specific Documents, page 15](#)
- [Platform-Specific Documents, page 16](#)
- [Feature Modules, page 16](#)
- [Feature Navigator, page 16](#)
- [Cisco IOS Software Documentation Set, page 17](#)

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 Configuration: Cisco IOS Release 12.1

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

- *Caveats for Cisco IOS Release 12.1*

See *Caveats for Cisco IOS Release 12.1* and *Caveats for Cisco IOS Release 12.1 T*, which contain 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 Configuration: 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 **Software Center: Cisco IOS Software: Bug Toolkit: Bug Navigator II**. Another option is to go to <http://www.cisco.com/support/bugtools/>.

Platform-Specific Documents

These documents are available for the Cisco AS5800 on Cisco.com and the Documentation CD-ROM:

- *Read Me First—For Cisco AS5800 Universal Access Server*
- Hardware Installation Documents for the Cisco AS5800 Universal Access Server
- Configuration Documents for the Cisco AS5800 Universal Access Server
- *Cisco AS5800 Universal Access Server Regulatory Compliance and Safety Information*

On Cisco.com at:

Technical Documents: Access Servers and Access Routers: Access Servers: Cisco AS5800

On the Documentation CD-ROM at:

Cisco Product Documentation: Access Servers and Access Routers: Access Servers: Cisco AS5800

Feature Modules

Feature modules describe new features supported by Cisco IOS Release 12.1(5) XV3 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 Configuration: 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. 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 that are 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 two books: a configuration guide and a corresponding command reference. Chapters in a configuration guide describe protocols, configuration tasks, and Cisco IOS software functionality, and also 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 and the Documentation CD-ROM, two master hot-linked documents provide information for the Cisco IOS software documentation set.

On Cisco.com at:

Technical Documents: Cisco IOS Software Configuration: 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 3](#) describes the contents of the Cisco IOS Release 12.1 software documentation set for the AS5800, 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 Configuration: Cisco IOS Release 12.1

On the Documentation CD-ROM at:

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

Table 3 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> 	<ul style="list-style-type: none"> 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> 	<ul style="list-style-type: none"> 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> 	<ul style="list-style-type: none"> 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> 	<ul style="list-style-type: none"> 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> 	<ul style="list-style-type: none"> 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> 	<ul style="list-style-type: none"> AppleTalk and Novell IPX Overview Configuring AppleTalk Configuring Novell IPX
<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> 	<ul style="list-style-type: none"> Apollo Domain, Banyan VINES, DECnet, ISO CLNS, and XNS Overview Configuring Apollo Domain Configuring Banyan VINES Configuring DECnet Configuring ISO CLNS Configuring XNS

Table 3 Cisco IOS Release 12.1 Documentation Set (continued)

Books	Major Topics
<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
<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> • Release Notes (Release note and caveat documentation for 12.1-based releases and various platforms) • <i>Cisco IOS Debug Command Reference</i> • <i>Cisco IOS Dial Services Quick Configuration Guide</i> 	

Obtaining Documentation

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

World Wide Web

The most current Cisco documentation is available on the World Wide Web at <http://www.cisco.com>. Translated documentation can be accessed at http://www.cisco.com/public/countries_languages.shtml.

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, for your convenience many documents contain a response card behind the front cover. Otherwise, you can mail your comments to the following address:

Cisco Systems, Inc.
Document Resource Connection
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 15.

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