



Release Notes for Cisco SS7 Interconnect for Access Servers Solution Release 2.2(B)

May 26, 2001

These release notes describe the features and caveats for Release 2.2(B) of the Cisco SS7 Interconnect for Access Servers Solution. The following sections list the contents of this document and describe the solution and its components.

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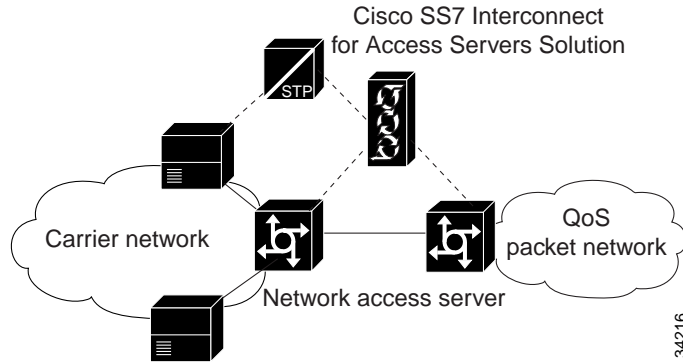
Introduction

The Cisco SS7 Interconnect for Access Servers Solution is a distributed system that adds SS7 signaling interfaces to large ISP POPs. SS7 interfaces are connected to the PSTN using the same signaling technology as a PSTN switch. The Cisco SS7 Interconnect for Access Servers Solution consists of the Cisco SC2200, the Cisco Signaling Link Terminal (SLT), and network access servers (NASs). The Cisco SS7 Interconnect for Access Servers Solution turns a POP into an end-office switching system in the PSTN, allowing direct peer-to-peer signaling connectivity. The POP, as a switch, connects directly to the rest of the network as a peer.



Figure 1 shows a network that connects a PSTN carrier to an ISP POP using the Cisco SS7 Interconnect for Access Servers Solution.

Figure 1 Cisco SS7 Interconnect for Access Servers Solution



System Requirements

Hardware and Software Components

Table 1 Cisco SS7 Interconnect for Access Servers Solution Components

Component Type	Hardware	Minimum Software Version Required	Flash Memory Required	DRAM Memory Required	Minimum Hard Disk
Media Gateway Controller	Cisco SC2200 ¹	Media Gateway Controller Software Version 7.4(11)	—	—	One 9-GB
SS7 Signaling Pre-Processor	Cisco Signaling Link Terminal (SLT)	Cisco IOS Release 12.1(3)T	16 MB	48 MB	—
Media Gateway	Cisco AS5300	Cisco IOS Release 12.2.(1)	16 MB	128 MB	—
	Cisco AS5350	Cisco IOS Release 12.1(5)XM3	32 MB	128 MB	—
	Cisco AS5400	Cisco IOS Release 12.2.(1)	32 MB	128 MB	—
	Cisco AS5800	Cisco IOS Release 12.1(5)XM3	16 MB	256 MB	—
Network Management	Cisco Media Gateway Node Manager (CMNM) ²	CMNM 1.0	—	2 GB	Two 9-GB

1. For detailed hardware requirements for the Cisco SC2200, refer to [Release Notes for Cisco Media Gateway Controller Software Release 7.4\(11\)](#)
2. For detailed hardware requirements for CMNM, refer to [Installing CMNM](#).

Determining Software Versions

To determine the version of Cisco IOS software currently running, log in to the router and enter the **show version** EXEC command. The following sample output from the **show version** command indicates the version number on the second output line:

```
Router#> show version
Cisco Internetwork Operating System Software
IOS (tm) 12.1 Software c5300-i-mz, Version 12.2(1), RELEASE SOFTWARE
```

Upgrading to a New Solution Release

For detailed instructions on upgrading to a new solution release, refer to [Cisco SS7 Interconnect for Access Servers Upgrade Guide](#).

New Features

[Table 2](#) lists the features that have been added to Release 2.2(B) of the Cisco SS7 Interconnect for Access Servers solution.

Table 2 *New Features in the Cisco SS7 Interconnect for Access Servers Solution*

Feature	Supported Platform	Minimum Cisco IOS Version Required	Reference Documentation
Call Hairpinning	Cisco AS5800	Cisco IOS Release 12.1(5)XM3	Configuring Call Hairpinning on the Cisco AS5800
Support for Cisco AS5350	Cisco AS5350	Cisco IOS Release 12.1(5)XM3	SS7 Interconnect for Access Svrs/Voice GWs Gateway Guide

Caveats

Caveats describe unexpected behavior in the Cisco SS7 Interconnect for Access Servers Solution. Severity 1 caveats are the most serious caveats; severity 2 caveats are less serious. To review caveats that affect the Cisco SS7 Interconnect for Access Servers Solution, refer to the following online release notes:

- [Cisco SC2200](#)
- [Cisco Signaling Link Terminal](#)
- [Cisco AS5300 Universal Access Server](#)
- [Cisco AS5350 Universal Gateway](#)
- [Cisco AS5400 Universal Gateway](#)
- [Cisco AS5800 Universal Access Server](#)

Troubleshooting

For information on troubleshooting procedures for the Cisco SS7 Interconnect for Access Servers Solution, refer to the following online document:

[*Cisco MGC Software Release 7 Operations, Maintenance, and Troubleshooting Guide*](#)

Related Documentation

Consult the following online documentation for information about hardware installation and system requirements for the Cisco SS7 Interconnect for Access Servers Solution.

Solution-Specific Documents

[*Cisco SS7 Interconnect for Access Servers Solution Overview 2.2*](#)

[*Cisco SS7 Interconnect for Access Servers Upgrade Guide*](#)

Platform-Specific Documents

[*SS7 Interconnect for Access Srvrs/Voice GWs Gateway Guide*](#)

[*SS7 Interconnect for Access Srvrs/Voice GWs Provisioning Guide*](#)

[*Cisco Media Gateway Controller Hardware Installation Guide*](#)

[*Regulatory Compliance and Safety Information for the Cisco Media Gateway Controller*](#)

[*Cisco Signaling Link Terminal*](#)

Release-Specific Documents

Platform-specific release notes for Cisco SS7 Interconnect for Access Servers Solution components:

- [*Cisco Media Gateway Controller*](#)
- [*Cisco Signaling Link Terminal*](#)
- [*Cisco AS5300 Universal Access Servers*](#)
- [*Cisco AS5350 Universal Gateway*](#)
- [*Cisco AS5400 Universal Access Server*](#)
- [*Cisco AS5800 Universal Access Server*](#)

[*Caveats for Cisco IOS Release 12.1 T*](#)

[*Cisco MGC Software Release 7 Installation & Configuration Guide*](#)

[*Cisco MGC Software Release 7 Reference Guide, Version 3*](#)

[*Cisco MGC Software Release 7 Operations, Maintenance, and Troubleshooting Guide*](#)

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, 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 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: Documentation Home Page: 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

[Table 3](#) describes 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: Documentation Home Page: 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 Software 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
<ul style="list-style-type: none"> • <i>Cisco IOS Multiservice Applications Configuration Guide</i> • <i>Cisco IOS Multiservice Applications Command Reference</i> 	<ul style="list-style-type: none"> Multiservice Applications Overview Voice Video Broadband

Table 3 Cisco IOS Software Release 12.1 Documentation Set (continued)

Books	Major Topics
<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> 	

**Note**

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

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, 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.