About This Guide

This guide describes how to configure a Cisco SIP proxy server (Cisco SPS) to be operational in a voice-over-IP (VoIP) network. It also includes reference information related to compliance and call flows.

This preface describes the document organization, audience and objectives, and conventions.

The Cisco SPS CD contains the following:

- Conversion scripts
- GUI-installer executables (Linux, Solaris, and Windows versions)
- Cisco SPS-XML interface information—Describes the HTTP server/client interface that carries and parses XML data
- Linux RPM Package Manager (rpm) software
- Solaris pkg software
- *Cisco SIP Proxy Server Administrator Guide*—Describes how to configure, monitor, maintain, and troubleshoot Cisco SPS and the MySQL databases
- *Cisco SIP Proxy Server Installation Guide*—Describes how to install Cisco SPS and the MySQL databases
- *Release Notes for the Cisco SIP Proxy Server*—Presents system and memory requirements; hardware, software, and firmware release information; new and changed system information; installation notes; limitations and restrictions; open and resolved caveats; troubleshooting information; and service and support information. Offers configuration tips.

> **Note** You can also obtain the guides and release notes, including any updates, at http://www.cisco.com/univercd/cc/td/doc/product/voice/sipproxy/index.htm or http://www.cisco.com/en/US/products/sw/voicesw/ps2157/index.html.

Organization

This guide is organized as shown in Table 1.

Table 1   Document Organization

Chapter or Appendix	Content
Chapter 1, "Cisco SPS Overview"	Overview of SIP; features of and prerequisites for using Cisco SPS
Chapter 2, "Configuring Cisco SPS"	How to use the provisioning GUI to configure the Cisco SPS
Chapter 3, "Operating and Maintaining Cisco SPS"	How to start and stop the Cisco SPS, work with log files, and back up and restore configuration data
Chapter 4, "Managing Databases"	How to use system-administration tools for routing and registry
Chapter 5, "Monitoring System Status"	How to use CIAgent
Appendix A, "Troubleshooting"	Symptoms and error messages, along with possible causes and recommended actions
Appendix B, "Manual Configuration"	How to manually edit text-based configuration files if the provisioning-system GUI is not used
Appendix C, "Manual Operation and Maintenance"	How to manually start and stop the system if the provisioning-system GUI is not used
Appendix D, "DNS Setup"	How to set up DNS processes
Appendix E, "SIP Compliance"	How the Cisco SPS complies with the IETF definition of SIP as described in RFC 2543; an overview of SIP concepts and services
Appendix F, "SIP Call-Flow Scenarios"	How SIP messages are exchanged during various call scenarios
Glossary	
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Audience and Objectives

Network engineers, system administrators, and telecommunication engineers should use this guide to learn how to configure a Cisco SPS on the network.

Cisco SPS configuration tasks are considered to be administration-level tasks and require a working knowledge of UNIX, including configuration of user shells. They also require an understanding of IP networking and telephony concepts.

Note   This guide does not provide sufficient information for you to fully implement a SIP VoIP network.

Typographic Conventions

Table 2 describes conventions that are used in this document.

Table 2   Document Conventions

Convention	Description
boldface	Commands and keywords.
italic	Command input that you supply.
[ ]	Keywords or arguments that appear within square brackets are optional.
{ x	x	x }	Alternative, mutually exclusive keywords are grouped in braces and separated by vertical bars.
^ or Ctrl	The key labeled *Control*. For example, when you read *^D* or *Ctrl-D*, you should hold down the Control key while you press the D key.
screen font	Examples of information displayed on the screen.
boldface screen font	Examples of information that you must enter.
< >	Nonprinting characters, such as passwords, appear in angle brackets.
[ ]	Default responses to system prompts appear in square brackets.

Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

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

http://www.cisco.com/univercd/home/home.htm

You can access the Cisco website at this URL:

http://www.cisco.com

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

All users can order annual or quarterly subscriptions through the online Subscription Store:

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

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpck/pdi.htm

You can order Cisco documentation in these ways:

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

  http://www.cisco.com/en/US/partner/ordering/index.shtml

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

Documentation Feedback

You can submit comments electronically on Cisco.com. On the Cisco Documentation home page, click **Feedback** at the top of the page.

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

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

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

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance.

Cisco TAC Website

The Cisco TAC website (http://www.cisco.com/tac) provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year.

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

http://tools.cisco.com/RPF/register/register.do

Opening a TAC Case

The online TAC Case Open Tool (http://www.cisco.com/tac/caseopen) is the fastest way to open P3 and P4 cases. (Your network is minimally impaired or you require product information). After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using these recommendations, your case will be assigned to a Cisco TAC engineer.

For P1 or P2 cases (your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)
EMEA: +32 2 704 55 55
USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

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

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is "down" or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:

  http://www.cisco.com/en/US/products/products_catalog_links_launch.html

- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: Internetworking Terms and Acronyms Dictionary, Internetworking Technology Handbook, Internetworking Troubleshooting Guide, and the Internetworking Design Guide. For current Cisco Press titles and other information, go to Cisco Press online at this URL:

  http://www.ciscopress.com

- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access the magazine at this URL:

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

- *iQ Magazine* is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:

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

- *The Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the journal at this URL:

  http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html

- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:

  http://www.cisco.com/en/US/learning/index.html