



## About This Guide

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This guide provides information about the Service Selection Gateway (SSG) features of the Cisco 10000 Series Router. The SSG features are supported in Cisco IOS Release 12.2(16)BX and later releases.

## Audience

This guide is designed for system and network managers responsible for configuring Service Selection Gateway features on the Cisco 10000 router. The manager should be experienced using Cisco IOS software and be familiar with the operation of the Cisco 10000 router.

## Document Organization

This guide contains the following chapters:

Chapter	Title	Description
Chapter 1	Service Selection Gateway Overview	Describes the Service Selection Gateway features, restrictions, and prerequisites. Also provides an architectural model.
Chapter 2	Scalability and Performance	Describes limitations and restrictions, of the Service Selection Gateway feature.
Chapter 3	SSG Logon and Logoff	Describes the SSG features for logon and logoff related functions.
Chapter 4	Authentication and Accounting	Describes the SSG features for authentication and accounting related functions.
Chapter 5	Service Selection Methods	Describes the service selection methods supported on the Cisco 10000 router.
Chapter 6	Service Connection	Describes the SSG features for service connection.
Chapter 7	Service Profiles and Cached Service Profiles	Describes service profiles and cached service profiles.
Chapter 8	SSG Hierarchical Policing	Describes the SSG Hierarchical Policing feature supported by the Cisco 10000 router.
Chapter 9	Interface Configuration	Describes the Transparent Passthrough and Multicast Protocols on SSG Interfaces features.

Chapter	Title	Description
Chapter 10	SSG TCP Redirect	Describes the TCP Redirect feature for SSG.
Chapter 11	Miscellaneous SSG Features	Describes the following features: <ul style="list-style-type: none"> <li>• VPI/VCI Static Binding to a Service Profile</li> <li>• RADIUS Virtual Circuit Logging</li> <li>• AAA Server Group Support for Proxy Services</li> <li>• Packet Filtering</li> <li>• SSG Unconfig</li> <li>• SSG Enhancements for Overlapping Services</li> </ul>
Chapter 12	Monitoring and Maintaining SSG	Provides <b>show</b> commands for monitoring and maintaining SSG, describes the per-service statistics feature, and provides commands for monitoring the Parallel Express Forwarding (PXF) engine.
Appendix A	Configuration Example for SSG	Provides a basic configuration example for SSG.

**Note**

This guide also includes a glossary of terms used in the document and an index to help you locate topics.

## Document Conventions

This guide uses the following conventions:

- **Bold** is used for commands, keywords, and buttons.
- *Italics* are used for command input for which you supply values.
- **Screen font** is used for examples of information that are displayed on the screen.
- **Bold screen** font is used for examples of information that you enter.
- Vertical bars ( | ) indicate separate alternative, mutually exclusive elements.
- Square brackets ( [ ] ) indicate optional elements.
- Braces ( { } ) indicate a required choice.
- Braces within square brackets ( [{} ] ) indicate a required choice within an optional element.

**Note**

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the guide.

**Timesaver**

Means the *described action saves time*. You can save time by performing the action described in the paragraph.

**Caution**

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

**Warning**

Means *danger*. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents. To see translated versions of warnings, refer to the *Regulatory Compliance and Safety Information* document that accompanied the device.

## Related Documentation

The following documentation provides additional information about the Cisco 10000 router and its features:

- [Cisco 10000 Series Router Feature Map](#)
- [Cisco 10000 Series Router Software Configuration Guides](#)
- [Cisco 10000 Series Router Hardware Documents](#)
- [Technology of Edge Aggregation: Cisco 10000 Series Router](#)
- [Cisco 10000 Series Router Technical Reference](#)
- [Cisco 10000 Series Router Useful Links](#)
- [Cisco 10000 Series Router MIB Documents](#)

## 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](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](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>

Click Subscriptions & Promotional Materials in the left navigation bar.

## Ordering Documentation

You can find instructions for ordering documentation at this URL:

[http://www.cisco.com/univercd/cc/td/doc/es\\_inpk/pdi.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpk/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 e-mail comments about technical documentation to [bug-doc@cisco.com](mailto: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-a-day, 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. If you do not hold a valid Cisco service contract, please contact your reseller.

## Cisco TAC Website

The Cisco TAC website 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. The Cisco TAC website is located at this URL:

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

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

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which 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 the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

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

For P1 or P2 cases (P1 and P2 cases are those in which 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](http://www.cisco.com/en/US/products/products_catalog_links_launch.html)

- Cisco Press publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. 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 Packet magazine at this URL:

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

- 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 Internet Protocol Journal at this URL:

[http://www.cisco.com/en/US/about/ac123/ac147/about\\_cisco\\_the\\_internet\\_protocol\\_journal.html](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>