



## Preface

---

This guide provides instructions for configuring the advanced features of the Cisco 11500 Series Content Services Switches (CSS). Information in this guide applies to all CSS models except where noted. For information on CSS administration, refer to the *Cisco Content Services Switch Administration Guide*. For information on basic CSS configuration, refer to the *Cisco Content Services Switch Basic Configuration Guide*.

The CSS software is available in a Standard or optional Enhanced feature set. The Enhanced feature set contains all of the Standard feature set and also includes Network Address Translation (NAT) Peering, Domain Name Service (DNS), Demand-Based Content Replication (Dynamic Hot Content Overflow), Content Staging and Replication, and Network Proximity DNS. Proximity Database and Secure Management, which includes Secure Shell Host and SSL strong encryption for the Device Management software, are optional features.



---

**Note**

You must enter a Standard software license key when you boot the CSS for the first time. For details about activating a CSS software option, refer to the *Cisco Content Services Switch Administration Guide*.

---

This preface contains the following major sections:

- [Audience](#)
- [How to Use This Guide](#)
- [Related Documentation](#)
- [Symbols and Conventions](#)
- [Obtaining Documentation](#)
- [Obtaining Technical Assistance](#)
- [Obtaining Additional Publications and Information](#)

## Audience

This guide is intended for the following trained and qualified service personnel who are responsible for configuring the CSS:

- Web master
- System administrator
- System operator

## How to Use This Guide

This guide is organized as follows:

Chapter	Description
<a href="#">Chapter 1, Configuring the CSS Domain Name Service</a>	Configure the Domain Name Service (DNS) on a CSS to translate domain names into IP addresses.
<a href="#">Chapter 2, Configuring the DNS Sticky Feature</a>	Configure DNS Sticky on a CSS to maintain persistence on a server for e-commerce clients.
<a href="#">Chapter 3, Configuring a CSS as a Content Routing Agent</a>	Configure a CSS as a content routing agent (CRA) to enhance a user's browser experience.

<b>Chapter</b>	<b>Description</b>
<a href="#">Chapter 4, Configuring a Client-Side Accelerator</a>	Configure a CSS as a Client Side Accelerator (CSA) to accelerate the retrieval of domain content.
<a href="#">Chapter 5, Configuring Network Proximity</a>	Configure Network Proximity on a CSS to improve network performance.
<a href="#">Chapter 6, Configuring VIP and Virtual Interface Redundancy</a>	Configure VIP and virtual IP interface redundancy on a CSS to maintain network integrity.
<a href="#">Chapter 7, Configuring Adaptive Session Redundancy</a>	Configure Adaptive Session Redundancy (ASR) on a CSS to provide stateful failover of flows.
<a href="#">Chapter 8, Configuring Box-to-Box Redundancy</a>	Configure box-to-box redundancy between two mirrored CSSs.
<a href="#">Chapter 9, Configuring Content Replication</a>	Configure demand-based content replication and content synchronization using publisher and subscriber services on a CSS.
<a href="#">Chapter 10, Configuring SSL Traffic through the CSS</a>	Configure the CSS and the SSL Acceleration Module to perform Secure Sockets Layer (SSL) termination between the client and the Web servers.
<a href="#">Chapter 11, Configuring Firewall Load Balancing</a>	Configure firewall load balancing between CSSs for enhanced security.
<a href="#">Chapter 12, Using the CSS Scripting Language</a>	Use the CSS scripting language to automate configuration tasks and create script keepalives. Includes example scripts.
<a href="#">Chapter 13, Using an XML Document to Configure the CSS</a>	Use extended markup language (XML) to configure a CSS.

## Related Documentation

In addition to the *Cisco Content Services Switch Advanced Configuration Guide*, the Content Services Switch documentation includes the following publications.

Document Title	Description
<i>Release Note for the Cisco 11500 Series Content Services Switch</i>	Provides information on operating considerations, caveats, and CLI commands for the Cisco 11500 series CSS.
<i>Cisco 11500 Series Content Services Switch Hardware Installation Guide</i>	Provides information for installing, cabling, and booting the Cisco 11500 series CSS. In addition, this guide provides information about CSS specifications, cable pinouts, and troubleshooting.
<i>Cisco Content Services Switch Administration Guide</i>	Describes how to perform administrative tasks on the CSS including booting and logging into the CSS, upgrading your CSS software, and configuring the following: <ul style="list-style-type: none"> <li>• Management ports, interfaces, and circuits</li> <li>• DNS, ARP, RIP, IP, and bridging features</li> <li>• OSPF</li> <li>• Logging, including displaying log messages and interpreting sys.log messages</li> <li>• User profile and CSS parameters</li> <li>• SNMP</li> <li>• RMON</li> <li>• Offline Diagnostic Monitor (Offline DM) menu</li> </ul>

Document Title	Description
<i>Cisco Content Services Switch Basic Configuration Guide</i>	Describes how to perform basic CSS configuration tasks, including: <ul style="list-style-type: none"> <li>• Services</li> <li>• Owners</li> <li>• Content rules</li> <li>• Sticky parameters</li> <li>• HTTP header load balancing</li> <li>• Source groups, Access Control Lists (ACLs), Extension Qualifier Lists (EQLs), Uniform Resource Locator Qualifier Lists (URQLs), Network Qualifier Lists (NQLs), and Domain Qualifier Lists (DQLs)</li> <li>• Caching</li> </ul>
<i>Cisco Content Services Switch Command Reference</i>	Provides an alphabetical list of all CSS Command Line Interface commands by mode including syntax, options, and related commands.
<i>Cisco Content Services Switch Device Management User's Guide</i>	Provides an overview on using the WebNS Device Management user interface, an HTML-based Web application that you use to configure and manage a CSS.

## Symbols and Conventions

This guide uses the following symbols and conventions to identify different types of information.



### Caution

A caution means that a specific action you take could cause a loss of data or adversely impact use of the equipment.

**Warning**

---

**A warning describes an action that could cause you physical harm or damage the equipment.**

---

**Note**

---

A note provides important related information, reminders, and recommendations.

---

**Bold text** indicates a command in a paragraph.

*Courier text* indicates text that appears on a command line, including the CLI prompt.

**Courier bold text** indicates commands and text you enter in a command line.

*Italics text* indicates the first occurrence of a new term, book title, emphasized text, and variables for which you supply values.

1. A numbered list indicates that the order of the list items is important.
  - a. An alphabetical list indicates that the order of the secondary list items is important.
  - A bulleted list indicates that the order of the list topics is unimportant.
    - An indented list indicates that the order of the list subtopics is unimportant.

## 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 monthly 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\\_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, U.S.A.) 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 e-mail your comments 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

Cisco provides Cisco.com, which includes the Cisco Technical Assistance Center (TAC) website, as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from the Cisco TAC website. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC website, including TAC tools and utilities.

## Cisco.com

Cisco.com offers a suite of interactive, networked services that let you access Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise

- Register for online skill assessment, training, and certification programs

To obtain customized information and service, you can self-register on Cisco.com at this URL:

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

## Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The type of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

We categorize Cisco TAC inquiries according to urgency:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration. There is little or no impact to your business operations.
- Priority level 3 (P3)—Operational performance of the network is impaired, but most business operations remain functional. You and Cisco are willing to commit resources during normal business hours to restore service to satisfactory levels.
- Priority level 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively impacted by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.
- Priority level 1 (P1)—An existing 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.

## Cisco TAC Website

The Cisco TAC website provides online documents and tools to help troubleshoot and resolve technical issues with Cisco products and technologies. To access the Cisco TAC website, go to this URL:

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

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

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

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC website, you can open a case online at this URL:

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

If you have Internet access, we recommend that you open P3 and P4 cases online so that you can fully describe the situation and attach any necessary files.

## Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

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

Before calling, please check with your network operations center to determine the Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

# Obtaining Additional Publications and Information

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

- The Cisco Online Subscription Center is the website where you can sign up for a variety of Cisco e-mail newsletters and other communications. Create a profile and then select the subscriptions that you would like to receive. To visit the Cisco Online Subscription Center, go to this URL:

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

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco channel product offerings. To order and find out more about the *Cisco Product Quick Reference Guide*, go to this URL:

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

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

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

- 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 at this URL:

<http://www.ciscopress.com>

- *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/ipj>

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:

<http://www.cisco.com/en/US/products/index.html>

- Networking Professionals Connection is an interactive website where networking professionals share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:  
<http://www.cisco.com/discuss/networking>
- “What’s New in Cisco Documentation” is an online publication that provides information about the latest documentation releases for Cisco products. Updated monthly, this online publication is organized by product category to direct you quickly to the documentation for your products. You can view the latest release of “What’s New in Cisco Documentation” at this URL:  
<http://www.cisco.com/univercd/cc/td/doc/abtnucd/136957.htm>
- World-class networking training is available from Cisco. You can view current offerings at this URL:  
<http://www.cisco.com/en/US/learning/index.html>