



Preface

This guide provides instructions for the content load-balancing configuration of the Cisco 11500 Series Content Services Switch (CSS). Information in this guide applies to all CSS models except where noted.

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.

This preface contains the following major sections:

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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	Describes How to
Chapter 1, Configuring Services	Create and configure services and source groups. This chapter also contains an overview on the association between services, owners, and content rules.
Chapter 2, Configuring Owners	Create and configure owners. This chapter also describes how to configure owner attributes such as a DNS balance type, address, billing information, case sensitivity, and DNS type.
Chapter 3, Configuring Content Rules	Create and configure content rules. This chapter also describes how to assign a content rule to an owner, configure a virtual IP address, add a service to a content rule, and activate, suspend, and remove a content rule.
Chapter 4, Configuring Sticky Parameters for Content Rules	Configure sticky parameters for content rules such as subnet mask, inactive timeout, string range, string operation, string prefix and string skip length.
Chapter 5, Configuring Flow and Port Mapping Parameters	Configure flow parameters for the CSS, including connections for TCP or UDP ports, flow inactivity timeout values, the flow state table, and port mapping.

Chapter	Describes How to
Chapter 6, Configuring HTTP Header Load Balancing	Configure HTTP header load balancing including creating a header field group, configuring a header field entry, associating a header field group to a content rule, and showing header field groups.
Chapter 7, Configuring Caching	Configure content caching for proxy, reverse proxy, and transparent caching configurations.
Chapter 8, Configuring Content Replication	Configure demand-based content replication and content synchronization using publisher and subscriber services on a CSS.

Related Documentation

In addition to this document, the Content Services Switch documentation set includes the following:

Document Title	Description
<i>Release Note for the Cisco 11500 Series Content Services Switch</i>	This release note provides information on operating considerations, caveats, and command-line interface (CLI) commands for the Cisco 11500 series CSS.
<i>Cisco 11500 Series Content Services Switch Hardware Installation Guide</i>	This guide provides information for installing, cabling, and powering the Cisco 11500 series CSS. In addition, this guide provides information about CSS specifications, cable pinouts, and hardware troubleshooting.

Document Title	Description
<i>Cisco Content Services Switch Administration Guide</i>	<p>This guide describes how to perform administrative tasks on the CSS, including booting and logging in to the CSS, upgrading your CSS software, and configuring the following:</p> <ul style="list-style-type: none"> • User profile and CSS parameters • Logging, including displaying log messages and interpreting sys.log messages • DNS server for hostname resolution • User profile and CSS parameters • SNMP • RMON • XML documents to configure the CSS • CSS scripting language • Offline Diagnostic Monitor (Offline DM) menu
<i>Cisco Content Services Switch Routing and Bridging Configuration Guide</i>	<p>This guide describes how to perform routing and bridging configuration tasks on the CSS, including:</p> <ul style="list-style-type: none"> • Management ports, interfaces, and circuits • Spanning-tree bridging • Address Resolution Protocol (ARP) • Routing Information Protocol (RIP) • Internet Protocol (IP) • OSPF protocol • Cisco Discovery Protocol (CDP) • Dynamic Host Configuration Protocol (DHCP) relay agent

Document Title	Description
<i>Cisco Content Services Switch Global Server Load-Balancing Configuration Guide</i>	<p>This guide describes how to perform CSS global load-balancing configuration tasks, including:</p> <ul style="list-style-type: none"> • Domain Name Service (DNS) • DNS Sticky • Content Routing Agent • Client-Side Accelerator • Network proximity
<i>Cisco Content Services Switch Redundancy Configuration Guide</i>	<p>This guide describes how to perform CSS redundancy configuration tasks, including:</p> <ul style="list-style-type: none"> • VIP and virtual interface redundancy • Adaptive session redundancy • Box-to-box redundancy
<i>Cisco Content Services Switch Security Configuration Guide</i>	<p>This guide describes how to perform CSS security configuration tasks, including:</p> <ul style="list-style-type: none"> • Controlling access to the CSS • Secure Shell Daemon protocol • Radius • TACACS+ • Firewall load balancing • Secure Socket Layer (SSL) termination with the SSL Acceleration Module
<i>Cisco Content Services Switch Command Reference</i>	<p>This reference provides an alphabetical list of all CLI commands including syntax, options, and related commands.</p>
<i>Cisco Content Services Switch Device Management User's Guide</i>	<p>This guide explains how to use the Device Management user interface, an HTML-based Web-based application that you use to configure and manage your CSS.</p>

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.

Italic text indicates the first occurrence of a new term, a book title, emphasized text, or 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 documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain 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

Ordering Documentation

You can find instructions for ordering documentation at this URL:

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 Ordering tool:

<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.

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 Technical Support Website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

Cisco Technical Support Website

The Cisco Technical Support Website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco Technical Support Website is available 24 hours a day, 365 days a year. The Cisco Technical Support Website is located at this URL:

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

Accessing all the tools on the Cisco Technical Support 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/techsupport/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.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Go to this URL to visit the company store:

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

- 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://cisco.com/univercd/cc/td/doc/pcat/>

- *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/ipj>

- 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>

