



# Preface

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This guide provides the following information:

- An overview of the major functions and features of the Cisco 4700 Series Application Control Engine (ACE) appliance
- Instructions on how to initially configure the ACE to allow traffic and basic load balancing
- Instructions on how to configure the ACE to provide various scalability and security capabilities
- References to find the information in the documentation set

This preface contains the following major sections:

- [Audience](#)
- [How to Use This Guide](#)
- [Related Documentation](#)
- [Symbols and Conventions](#)
- [Obtaining Documentation, Obtaining Support, and Security Guidelines](#)

# Audience

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

- Web master
- System administrator
- System operator

# How to Use This Guide

This guide is organized as follows:

Chapter	Description
<a href="#">Chapter 1, Overview</a>	Provides an overview of the major functions and features of the ACE
<a href="#">Chapter 2, Setting Up an ACE Appliance</a>	Provides procedures to initially configure the ACE to allow the passing of traffic and remote access
<a href="#">Chapter 3, Creating a Virtual Context</a>	Provides procedures to partition the ACE into virtual contexts for more efficient operation
<a href="#">Chapter 4, Configuring Access Control Lists</a>	Provides procedures to configure an access control list in an ACE to secure your network
<a href="#">Chapter 5, Configuring Role-Based Access Control</a>	Provides procedures to configure a user with permission to perform limited operations and access a subset of your network
<a href="#">Chapter 6, Configuring Server Load Balancing</a>	Provides procedures to configure the ACE to allow basic server load balancing
<a href="#">Chapter 7, Configuring a Load-Balancing Predictor</a>	Provides procedures to select a predefined predictor for server load balancing
<a href="#">Chapter 8, Configuring Server Persistence Using Stickiness</a>	Provides procedures to configure server persistence for requests from a client using stickiness

Chapter	Description
<a href="#">Chapter 9, Configuring SSL Security</a>	Provides procedures to configure SSL security for your network
<a href="#">Chapter 10, Configuring Health Monitoring Using Health Probes</a>	Provides procedures to configure server health monitoring using health probes

If you are already familiar with the ACE appliance and would like to quickly set up the device for basic server load balancing, you can follow the configuration procedures in the following chapters:

- [Chapter 2, Setting Up an ACE Appliance](#)
- [Chapter 3, Creating a Virtual Context](#)
- [Chapter 6, Configuring Server Load Balancing](#)

The remaining chapters allow you to explore additional capabilities of the ACE.

## Related Documentation

In addition to this document, the ACE documentation set includes the following documents:

Document Title	Description
<i>Release Note for the Cisco 4700 Series Application Control Engine Appliance</i>	Provides information about operating considerations, caveats, and CLI commands for the ACE appliance.
<i>Cisco 4710 Application Control Engine Appliance Hardware Installation Guide</i>	Provides information for installing the ACE appliance.

<b>Document Title</b>	<b>Description</b>
<i>Cisco 4700 Series Application Control Engine Appliance Device Manager GUI Configuration Guide</i>	Describes how to configure the ACE using the Device Manager GUI and provides background details about the attributes used in the GUI.
<i>Cisco 4700 Series Application Control Engine Appliance Command Reference</i>	Provides an alphabetical list and descriptions of all CLI commands by mode, including syntax, options, and related commands.
<i>Cisco 4700 Series Application Control Engine Appliance Administration Guide</i>	Describes how to perform the following administration tasks on the ACE: <ul style="list-style-type: none"> <li>• Setting up the ACE</li> <li>• Establishing remote access</li> <li>• Managing software licenses</li> <li>• Configuring class maps and policy maps</li> <li>• Managing the ACE software</li> <li>• Configuring SNMP</li> <li>• Configuring redundancy</li> <li>• Configuring the XML interface</li> <li>• Upgrading the ACE software</li> </ul>
<i>Cisco 4700 Series Application Control Engine Appliance Virtualization Configuration Guide</i>	Describes how to operate your ACE in a single context or in multiple contexts and how to configure Role-Based Access Control.

<b>Document Title</b>	<b>Description</b>
<i>Cisco 4700 Series Application Control Engine Appliance Routing and Bridging Configuration Guide</i>	<p>Describes how to configure the following routing and bridging tasks on the ACE:</p> <ul style="list-style-type: none"> <li>• VLAN interfaces</li> <li>• Routing</li> <li>• Bridging</li> <li>• Dynamic Host Configuration Protocol (DHCP)</li> </ul>
<i>Cisco 4700 Series Application Control Engine Appliance Server Load-Balancing Configuration Guide</i>	<p>Describes how to configure the following server load-balancing tasks on the ACE:</p> <ul style="list-style-type: none"> <li>• Real servers and server farms</li> <li>• Class maps and policy maps to load-balance traffic to real servers in server farms</li> <li>• Server health monitoring (probes)</li> <li>• Stickiness</li> <li>• Firewall load balancing</li> <li>• TCL scripts</li> </ul>
<i>Cisco 4700 Series Application Control Engine Appliance Security Configuration Guide</i>	<p>Describes how to perform the following ACE security configuration tasks:</p> <ul style="list-style-type: none"> <li>• Access control lists (ACLs)</li> <li>• User authentication and accounting using a Terminal Access Controller Access Control System Plus (TACACS+), Remote Authentication Dial-In User Service (RADIUS), or Lightweight Directory Access Protocol (LDAP) server</li> <li>• Application protocol and HTTP deep packet inspection</li> <li>• TCP/IP normalization and termination parameters</li> <li>• Network address translation (NAT)</li> </ul>

<b>Document Title</b>	<b>Description</b>
<i>Cisco 4700 Series Application Control Engine Appliance SSL Configuration Guide</i>	Describes how to configure the following SSL tasks on the ACE: <ul style="list-style-type: none"> <li>• SSL certificates and keys</li> <li>• SSL initiation</li> <li>• SSL termination</li> <li>• End-to-end SSL</li> </ul>
<i>Cisco 4700 Series Application Control Engine Appliance System Message Guide</i>	Describes how to configure system message logging on the ACE. This guide also lists and describes the system log (syslog) messages generated by the ACE.
<i>Cisco CSM-to-ACE Conversion Tool User Guide</i>	Describes how to use the CSM-to-ACE conversion tool to migrate Cisco Content Switching Module (CSM) running or startup configuration files to the ACE.
<i>Cisco CSS-to-ACE Conversion Tool User Guide</i>	Describes how to use the CSS-to-ACE conversion tool to migrate Cisco Content Services Switches (CSS) running or startup configuration files to the ACE.

# Symbols and Conventions

This publication uses the following conventions:

Convention	Description
<b>boldface font</b>	Commands, command options, and keywords are in <b>boldface</b> . Bold text also indicates a command in a paragraph.
<i>italic font</i>	Arguments for which you supply values are in <i>italics</i> .
[ ]	Elements in square brackets are optional.
{ x   y   z }	Alternative keywords are grouped in braces and separated by vertical bars.
[ x   y   z ]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in <i>screen font</i> .
<b>boldface screen font</b>	Information you must enter on a command line is in <b>boldface screen font</b> .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
^	The symbol ^ represents the key labeled Control—for example, the key combination ^D in a screen display means hold down the Control key while you press the D key.
< >	Nonprinting characters, such as passwords are in angle brackets.

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.

Notes use the following conventions:



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**Note**

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

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Cautions use the following conventions:



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**Caution**

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

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## Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>