



## Preface

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The Cisco IOS XR Virtual Firewall (VFW) application runs on the Cisco XR 12000 multiservice blade (MSB). A dual-core CPU on the MSB runs the Cisco IOS XR software (standard edge engine code and firewall code) on core 1 and SanOS (Linux) with the Virtual Firewall application code on core 0.

This document describes two command sets that support the Virtual Firewall (VFW) feature:

- The Cisco IOS XR software used to configure the MSB for the virtual firewall and access the VFW application.
- The SanOS (Linux) software used on the VFW application, which is slightly different from the standard Cisco IOS XR software syntax. Refer to [“Appendix A: Using the Command-Line Interface on the VFW Application”](#) in *Cisco IOS XR Virtual Firewall Configuration Guide* for more information.

The preface contains the following sections:

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## Changes to This Document

[Table 1](#) lists the technical changes made to this document since it was first printed.

**Table 1** *Changes to This Document*

Revision	Date	Change Summary
OL-15800-02	August 2008	Example was added in the <a href="#">“VASI Commands on Cisco IOS XR Software”</a> section on page VFR-523. The <a href="#">sleep</a> command was added.
OL-15800-01	June 2008	Initial release of this document.

## Intended Audience

This document is intended for the following VFW users:

- Experienced service provider administrators
- Cisco telecommunications management engineers
- Third-party field service technicians who have completed the Cisco IOS XR software training sessions
- Customers who daily use and manage routers running Cisco IOS XR software

## How to Use This Guide

This guide is organized as follows:

Section	Description
<a href="#">Virtual Firewall Commands on Cisco IOS XR Software, page 1</a>	Describes the Cisco IOS XR software commands used to configure and integrate a VFW.
<a href="#">Class Map Commands on the Virtual Firewall, page 25</a>	Describes the commands used to configure class maps in the VFW application.
<a href="#">Access Control List Commands on the Virtual Firewall, page 71</a>	Describes the commands used to configure ACLs in the VFW application.
<a href="#">Policy Map Commands on the Virtual Firewall, page 89</a>	Describes the commands used to configure policy maps and attach policy maps to VFW interfaces.
<a href="#">Interface Commands on the Virtual Firewall, page 155</a>	Describes the commands used to configure VFW interfaces.
<a href="#">Virtualization Commands on the Virtual Firewall, page 171</a>	Describes the commands used to configure multiple contexts within the VFW application.
<a href="#">Authentication and Accounting Commands on the Virtual Firewall, page 203</a>	Describes the commands used to configure authentication and accounting on the VFW application.
<a href="#">High Availability Commands on the Virtual Firewall, page 255</a>	Describes the commands used to configure redundancy on the MSBs.
<a href="#">TCP/IP Normalization and IP Reassembly Parameters Commands on the Virtual Firewall, page 285</a>	Describes the commands used to configure TCP/IP normalization and IP reassembly parameters in the VFW application.
<a href="#">Parameter Map Commands on the Virtual Firewall, page 309</a>	Describes the commands used to configure parameter maps in the VFW application.
<a href="#">Terminal and Session Commands on the Virtual Firewall, page 349</a>	Describes the commands used to configure terminal line settings and Telnet and SSH sessions on the VFW application.
<a href="#">System and File Management Commands on the Virtual Firewall, page 371</a>	Describes the commands used to configure and view system features and to perform file management on the VFW application.
<a href="#">SNMP Commands on the Virtual Firewall, page 469</a>	Describes the commands used to configure SNMP on the VFW application.

Section	Description
<a href="#">Logging Commands on the Virtual Firewall, page 489</a>	Describes the commands used to configure logging on the VFW application.
<a href="#">VASI Commands on Cisco IOS XR Software, page 523</a>	Describes the commands used to configure VRF-Aware Service Infrastructure (VASI).

## Related Documentation

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

Document Title	Description
<i>Cisco IOS XR Virtual Firewall Configuration Guide</i>	This guide describes how to perform Virtual Firewall (VFW) configuration tasks using Cisco IOS XR software and VFW application commands, including initial setup, remote access, class maps and policy maps, managing the VFW application software, SNMP, system message logging, redundancy, and upgrading your software.
<i>Cisco IOS XR Command Modes Reference</i>	This guide provides information on command-line interface (CLI) commands for the Cisco IOS XR software.
<i>Cisco IOS XR Getting Started Guide</i>	This guide describes how to perform the initial setup and configuration tasks for the Cisco IOS XR software.

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, 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>

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This product includes cryptographic software written by Eric Young (eay@cryptsoft.com).

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