



Documentation Reference for VSP Operating System Software

Release 7.1 (VOSS)
9035524
July 2018

© 2017-2018, Extreme Networks, Inc.
All Rights Reserved.

Notice

While reasonable efforts have been made to ensure that the information in this document is complete and accurate at the time of printing, Extreme Networks, Inc. assumes no liability for any errors. Extreme Networks, Inc. reserves the right to make changes and corrections to the information in this document without the obligation to notify any person or organization of such changes.

Documentation disclaimer

"Documentation" means information published in varying mediums which may include product information, operating instructions and performance specifications that are generally made available to users of products. Documentation does not include marketing materials. Extreme Networks shall not be responsible for any modifications, additions, or deletions to the original published version of Documentation unless such modifications, additions, or deletions were performed by or on the express behalf of Extreme Networks. End User agrees to indemnify and hold harmless Extreme Networks, Extreme Networks' agents, servants and employees against all claims, lawsuits, demands and judgments arising out of, or in connection with, subsequent modifications, additions or deletions to this documentation, to the extent made by End User.

Link disclaimer

Extreme Networks is not responsible for the contents or reliability of any linked websites referenced within this site or Documentation provided by Extreme Networks. Extreme Networks is not responsible for the accuracy of any information, statement or content provided on these sites and does not necessarily endorse the products, services, or information described or offered within them. Extreme Networks does not guarantee that these links will work all the time and has no control over the availability of the linked pages.

Warranty

Extreme Networks provides a limited warranty on Extreme Networks hardware and software. Refer to your sales agreement to establish the terms of the limited warranty. In addition, Extreme Networks' standard warranty language, as well as information regarding support for this product while under warranty is available to Extreme Networks customers and other parties through the Extreme Networks Support website: <http://www.extremenetworks.com/support> under the link "Policies" or such successor site as designated by Extreme Networks. Please note that if You acquired the product(s) from an authorized Extreme Networks Channel Partner outside of the United States and Canada, the warranty is provided to You by said Extreme Networks Channel Partner and not by Extreme Networks.

"Hosted Service" means an Extreme Networks hosted service subscription that You acquire from either Extreme Networks or an authorized Extreme Networks Channel Partner (as applicable) and which is described further in Hosted SAS or other service description documentation regarding the applicable hosted service. If You purchase a Hosted Service subscription, the foregoing limited warranty may not apply but You may be entitled to support services in connection with the Hosted Service as described further in your service description documents for the applicable Hosted Service. Contact Extreme Networks or Extreme Networks Channel Partner (as applicable) for more information.

Hosted Service

THE FOLLOWING APPLIES ONLY IF YOU PURCHASE AN EXTREME NETWORKS HOSTED SERVICE SUBSCRIPTION FROM EXTREME NETWORKS OR AN EXTREME NETWORKS CHANNEL PARTNER (AS APPLICABLE), THE TERMS OF USE FOR HOSTED SERVICES ARE AVAILABLE ON THE EXTREME NETWORKS WEBSITE, <https://extremeportal.force.com> OR SUCH SUCCESSOR SITE AS DESIGNATED BY EXTREME NETWORKS, AND ARE APPLICABLE TO ANYONE WHO ACCESSES OR USES THE HOSTED SERVICE. BY ACCESSING OR USING THE HOSTED SERVICE, OR AUTHORIZING OTHERS TO DO SO, YOU, ON BEHALF OF YOURSELF AND THE ENTITY FOR WHOM YOU ARE DOING SO (HEREINAFTER REFERRED TO INTERCHANGEABLY AS "YOU" AND "END USER"), AGREE TO THE TERMS OF USE. IF YOU ARE ACCEPTING THE TERMS OF USE ON BEHALF A COMPANY OR OTHER LEGAL ENTITY, YOU

REPRESENT THAT YOU HAVE THE AUTHORITY TO BIND SUCH ENTITY TO THESE TERMS OF USE. IF YOU DO NOT HAVE SUCH AUTHORITY, OR IF YOU DO NOT WISH TO ACCEPT THESE TERMS OF USE, YOU MUST NOT ACCESS OR USE THE HOSTED SERVICE OR AUTHORIZE ANYONE TO ACCESS OR USE THE HOSTED SERVICE.

Licenses

THE SOFTWARE LICENSE TERMS AVAILABLE ON THE EXTREME NETWORKS WEBSITE, <https://extremeportal.force.com> OR SUCH SUCCESSOR SITE AS DESIGNATED BY EXTREME NETWORKS, ARE APPLICABLE TO ANYONE WHO DOWNLOADS, USES AND/OR INSTALLS EXTREME NETWORKS SOFTWARE, PURCHASED FROM EXTREME NETWORKS, INC., ANY EXTREME NETWORKS AFFILIATE, OR AN EXTREME NETWORKS CHANNEL PARTNER (AS APPLICABLE) UNDER A COMMERCIAL AGREEMENT WITH EXTREME NETWORKS OR AN EXTREME NETWORKS CHANNEL PARTNER. UNLESS OTHERWISE AGREED TO BY EXTREME NETWORKS IN WRITING, EXTREME NETWORKS DOES NOT EXTEND THIS LICENSE IF THE SOFTWARE WAS OBTAINED FROM ANYONE OTHER THAN EXTREME NETWORKS, AN EXTREME NETWORKS AFFILIATE OR AN EXTREME NETWORKS CHANNEL PARTNER; EXTREME NETWORKS RESERVES THE RIGHT TO TAKE LEGAL ACTION AGAINST YOU AND ANYONE ELSE USING OR SELLING THE SOFTWARE WITHOUT A LICENSE. BY INSTALLING, DOWNLOADING OR USING THE SOFTWARE, OR AUTHORIZING OTHERS TO DO SO, YOU, ON BEHALF OF YOURSELF AND THE ENTITY FOR WHOM YOU ARE INSTALLING, DOWNLOADING OR USING THE SOFTWARE (HEREINAFTER REFERRED TO INTERCHANGEABLY AS "YOU" AND "END USER"), AGREE TO THESE TERMS AND CONDITIONS AND CREATE A BINDING CONTRACT BETWEEN YOU AND EXTREME NETWORKS, INC. OR THE APPLICABLE EXTREME NETWORKS AFFILIATE ("EXTREME NETWORKS").

Extreme Networks grants You a license within the scope of the license types described below. Where the order documentation does not expressly identify a license type, the applicable license will be a Designated System License as set forth below in the Designated System(s) License (DS) section as applicable. The applicable number of licenses and units of capacity for which the license is granted will be one (1), unless a different number of licenses or units of capacity is specified in the documentation or other materials available to You. "Software" means computer programs in object code, provided by Extreme Networks or an Extreme Networks Channel Partner, whether as stand-alone products, pre-installed on hardware products, and any upgrades, updates, patches, bug fixes, or modified versions thereto. "Designated Processor" means a single stand-alone computing device. "Server" means a set of Designated Processors that hosts (physically or virtually) a software application to be accessed by multiple users. "Instance" means a single copy of the Software executing at a particular time: (i) on one physical machine; or (ii) on one deployed software virtual machine ("VM") or similar deployment.

License type(s)

Designated System(s) License (DS). End User may install and use each copy or an Instance of the Software only: 1) on a number of Designated Processors up to the number indicated in the order; or 2) up to the number of Instances of the Software as indicated in the order, Documentation, or as authorized by Extreme Networks in writing. Extreme Networks may require the Designated Processor(s) to be identified in the order by type, serial number, feature key, Instance, location or other specific designation, or to be provided by End User to Extreme Networks through electronic means established by Extreme Networks specifically for this purpose.

Copyright

Except where expressly stated otherwise, no use should be made of materials on this site, the Documentation, Software, Hosted Service, or hardware provided by Extreme Networks. All content on this site, the documentation, Hosted Service, and the product provided by Extreme Networks including the selection, arrangement and design of the content is owned either by Extreme Networks or its licensors and is protected by copyright and other intellectual property laws including the sui generis rights relating to the protection of databases. You may not modify, copy, reproduce, republish, upload, post, transmit or distribute in any way any content, in whole or in part,

including any code and software unless expressly authorized by Extreme Networks. Unauthorized reproduction, transmission, dissemination, storage, and or use without the express written consent of Extreme Networks can be a criminal, as well as a civil offense under the applicable law.

Virtualization

The following applies if the product is deployed on a virtual machine. Each product has its own ordering code and license types. Note, unless otherwise stated, that each Instance of a product must be separately licensed and ordered. For example, if the end user customer or Extreme Networks Channel Partner would like to install two Instances of the same type of products, then two products of that type must be ordered.

Third Party Components

"Third Party Components" mean certain software programs or portions thereof included in the Software or Hosted Service may contain software (including open source software) distributed under third party agreements ("Third Party Components"), which contain terms regarding the rights to use certain portions of the Software ("Third Party Terms"). As required, information regarding distributed Linux OS source code (for those products that have distributed Linux OS source code) and identifying the copyright holders of the Third Party Components and the Third Party Terms that apply is available in the products, Documentation or on Extreme Networks' website at: <http://www.extremenetworks.com/support/policies/software-licensing> or such successor site as designated by Extreme Networks. The open source software license terms provided as Third Party Terms are consistent with the license rights granted in these Software License Terms, and may contain additional rights benefiting You, such as modification and distribution of the open source software. The Third Party Terms shall take precedence over these Software License Terms, solely with respect to the applicable Third Party Components to the extent that these Software License Terms impose greater restrictions on You than the applicable Third Party Terms.

The following applies only if the H.264 (AVC) codec is distributed with the product. THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL USE OF A CONSUMER OR OTHER USES IN WHICH IT DOES NOT RECEIVE REMUNERATION TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://WWW.MPEGLA.COM).

Service Provider

THE FOLLOWING APPLIES TO EXTREME NETWORKS CHANNEL PARTNER'S HOSTING OF EXTREME NETWORKS PRODUCTS OR SERVICES. THE PRODUCT OR HOSTED SERVICE MAY USE THIRD PARTY COMPONENTS SUBJECT TO THIRD PARTY TERMS AND REQUIRE A SERVICE PROVIDER TO BE INDEPENDENTLY LICENSED DIRECTLY FROM THE THIRD PARTY SUPPLIER. AN EXTREME NETWORKS CHANNEL PARTNER'S HOSTING OF EXTREME NETWORKS PRODUCTS MUST BE AUTHORIZED IN WRITING BY EXTREME NETWORKS AND IF THOSE HOSTED PRODUCTS USE OR EMBED CERTAIN THIRD PARTY SOFTWARE, INCLUDING BUT NOT LIMITED TO MICROSOFT SOFTWARE OR CODECS, THE EXTREME NETWORKS CHANNEL PARTNER IS REQUIRED TO INDEPENDENTLY OBTAIN ANY APPLICABLE LICENSE AGREEMENTS, AT THE EXTREME NETWORKS CHANNEL PARTNER'S EXPENSE, DIRECTLY FROM THE APPLICABLE THIRD PARTY SUPPLIER.

WITH RESPECT TO CODECS, IF THE EXTREME NETWORKS CHANNEL PARTNER IS HOSTING ANY PRODUCTS THAT USE OR EMBED THE G.729 CODEC, H.264 CODEC, OR H.265 CODEC, THE EXTREME NETWORKS CHANNEL PARTNER ACKNOWLEDGES AND AGREES THE EXTREME NETWORKS CHANNEL PARTNER IS RESPONSIBLE FOR ANY AND ALL RELATED FEES AND/OR ROYALTIES. THE G.729 CODEC IS LICENSED BY SIPRO LAB TELECOM INC. SEE WWW.SIPRO.COM/CONTACT.HTML. THE H.264 (AVC) CODEC IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR

THE PERSONAL USE OF A CONSUMER OR OTHER USES IN WHICH IT DOES NOT RECEIVE REMUNERATION TO: (I) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (II) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION FOR H.264 (AVC) AND H.265 (HEVC) CODECS MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://WWW.MPEGLA.COM).

Compliance with Laws

You acknowledge and agree that it is Your responsibility for complying with any applicable laws and regulations, including, but not limited to laws and regulations related to call recording, data privacy, intellectual property, trade secret, fraud, and music performance rights, in the country or territory where the Extreme Networks product is used.

Preventing Toll Fraud

"Toll Fraud" is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or is not working on your company's behalf). Be aware that there can be a risk of Toll Fraud associated with your system and that, if Toll Fraud occurs, it can result in substantial additional charges for your telecommunications services.

Security Vulnerabilities

Information about Extreme Networks' security support policies can be found in the Global Technical Assistance Center Knowledgebase at <https://gtacknowledge.extremenetworks.com/>.

Downloading Documentation

For the most current versions of Documentation, see the Extreme Networks Support website: <http://documentation.extremenetworks.com>, or such successor site as designated by Extreme Networks.

Contact Extreme Networks Support

See the Extreme Networks Support website: <http://www.extremenetworks.com/support> for product or Hosted Service notices and articles, or to report a problem with your Extreme Networks product or Hosted Service. For a list of support telephone numbers and contact addresses, go to the Extreme Networks Support website: <http://www.extremenetworks.com/support/contact/> (or such successor site as designated by Extreme Networks), scroll to the bottom of the page, and select Contact Extreme Networks Support.

Trademarks

The trademarks, logos and service marks ("Marks") displayed in this site, the Documentation, Hosted Service(s), and product(s) provided by Extreme Networks are the registered or unregistered Marks of Extreme Networks, Inc., its affiliates, its licensors, its suppliers, or other third parties. Users are not permitted to use such Marks without prior written consent from Extreme Networks or such third party which may own the Mark. Nothing contained in this site, the Documentation, Hosted Service(s) and product(s) should be construed as granting, by implication, estoppel, or otherwise, any license or right in and to the Marks without the express written permission of Extreme Networks or the applicable third party.

Extreme Networks is a registered trademark of Extreme Networks, Inc.

All non-Extreme Networks trademarks are the property of their respective owners. Linux[®] is the registered trademark of Linus Torvalds in the U.S. and other countries.

For additional information on Extreme Networks trademarks, please see: <http://www.extremenetworks.com/company/legal/>

Contents

Chapter 1: Preface	5
Purpose.....	5
Training.....	5
Providing Feedback to Us.....	5
Getting Help.....	6
Extreme Networks Documentation.....	6
Subscribing to Service Notifications.....	7
Chapter 2: New in this Document	8
Chapter 3: Technical documentation changes	9
New documents.....	9
Restructured documents.....	9
Retired documents.....	9
Chapter 4: Roadmap	10
Product fundamentals.....	10
Upgrades.....	10
Installation and commissioning.....	11
Administration and security.....	13
Operations.....	13
Fault and performance management.....	15
Chapter 5: Text conventions	16
Plain Courier text.....	16
Bold text.....	16
Special messages.....	16
Angle brackets.....	17
Braces.....	17
Brackets.....	18
Ellipses.....	18
Italic text.....	18
Separator.....	18
Vertical line.....	18
Chapter 6: Modular, task-based information	19
Work flows and task flows.....	19

Chapter 1: Preface

Purpose

This document provides information on features in VSP Operating System Software (VOSS). VOSS runs on the following product families:

- Extreme Networks Virtual Services Platform 4000 Series
- Extreme Networks Virtual Services Platform 7200 Series
- Extreme Networks Virtual Services Platform 8000 Series (includes VSP 8200 and VSP 8400 Series)
- Extreme Networks Virtual Services Platform 8600

Training

Ongoing product training is available. For more information or to register, you can access the Web site at www.extremenetworks.com/education/.

Providing Feedback to Us

We are always striving to improve our documentation and help you work better, so we want to hear from you! We welcome all feedback but especially want to know about:

- Content errors or confusing or conflicting information.
- Ideas for improvements to our documentation so you can find the information you need faster.
- Broken links or usability issues.

If you would like to provide feedback to the Extreme Networks Information Development team about this document, please contact us using our short [online feedback form](#). You can also email us directly at internalinfodev@extremenetworks.com

Getting Help

If you require assistance, contact Extreme Networks using one of the following methods:

- [GTAC \(Global Technical Assistance Center\) for Immediate Support](#)
 - Phone: 1-800-998-2408 (toll-free in U.S. and Canada) or +1 408-579-2826. For the support phone number in your country, visit: www.extremenetworks.com/support/contact
 - Email: support@extremenetworks.com. To expedite your message, enter the product name or model number in the subject line.
- [GTAC Knowledge](#) – Get on-demand and tested resolutions from the GTAC Knowledgebase, or create a help case if you need more guidance.
- [The Hub](#) – A forum for Extreme customers to connect with one another, get questions answered, share ideas and feedback, and get problems solved. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.
- [Support Portal](#) – Manage cases, downloads, service contracts, product licensing, and training and certifications.

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

Extreme Networks Documentation

To find Extreme Networks product guides, visit our documentation pages at:

Current Product Documentation	www.extremenetworks.com/documentation/
Archived Documentation (for previous versions and legacy products)	www.extremenetworks.com/support/documentation-archives/
Release Notes	www.extremenetworks.com/support/release-notes

Open Source Declarations

Some software files have been licensed under certain open source licenses. More information is available at: www.extremenetworks.com/support/policies/software-licensing.

Subscribing to Service Notifications

Subscribe to receive an email notification for product and software release announcements, Vulnerability Notices, and Service Notifications.

About this task

You can modify your product selections at any time.

Procedure

1. In an Internet browser, go to <http://www.extremenetworks.com/support/service-notification-form/>.
2. Type your first and last name.
3. Type the name of your company.
4. Type your email address.
5. Type your job title.
6. Select the industry in which your company operates.
7. Confirm your geographic information is correct.
8. Select the products for which you would like to receive notifications.
9. Click **Submit**.

Chapter 2: New in this Document

The following section details what is new in *Documentation Reference*.

Documentation Suite Updates

A document is retired and the content is merged with an existing document.

For more information, see [Technical documentation changes](#) on page 9.

Chapter 3: Technical documentation changes

This chapter describes the new, restructured, and retired documents for VSP Operating System Software (VOSS).

New documents

No new documents were introduced.

Restructured documents

No documents were restructured.

Retired documents

Content from *Configuring QoS and ACL-Based Traffic Filtering* for VSP 4000 Series is merged with *Configuring QoS and ACL-Based Traffic Filtering* for VSP Operating System Software. The VSP 4000 Series document is retired.

Chapter 4: Roadmap

Use this section as a guide to find information to perform work involving the VSP Operating System Software (VOSS).

Product fundamentals

Product fundamentals documentation contains information that is relevant to multiple job functions, and overview and reference information about the product and the product documentation.

Table 1: Product fundamentals documents

Technical document	Description
<i>Documentation Reference</i>	This document contains an overview of the documentation suite and explains how to use task-based documentation.
<i>Quick Start Configuration</i>	This document provides instructions to perform initial provisioning of the software.
<i>Using CLI and EDM</i>	This document describes how to navigate the command line interface, and how to use Enterprise Device Manager.
<i>CLI Commands Reference</i>	This document provides default values and proper syntax of the command line interface commands.

Upgrades

Upgrades documentation enables you to upgrade hardware and software from one release to another for the product.

Table 2: Upgrades documents

Technical document	Description
<i>Release Notes</i>	This document describes new features and important information about the latest release. Release notes include a list of known issues (including workarounds)

Technical document	Description
	where appropriate) and a list of fixed issues. This document also describes known limitations and expected behaviors that may first appear to be issues.

Installation and commissioning

Installation and commissioning documentation enables you to install the product hardware and software and perform the initial configuration.

Table 3: Installation and commissioning documents

Technical document	Description
<i>Installing the Virtual Services Platform 4850GTS Series</i>	This document provides procedures and conceptual information to install the VSP 4000 VSP4850GTS Series.
<i>Virtual Services Platform 4850GTS Series Quick Install Guide</i>	This document provides quick installation instructions to install the VSP 4000 VSP4850GTS Series switch.
<i>Virtual Services Platform 4450GSX Quick Install Guide</i>	This document provides quick installation instructions to install the VSP 4000 4450GSX-PWR+ switch.
<i>Installing the Virtual Services Platform 4450GTX-HT-PWR+</i>	This document provides procedures and conceptual information to install the VSP 4000 4450GTX-HTPWR+.
<i>Virtual Services Platform 4450GTX-HT-PWR+ Quick Install Guide</i>	This document provides quick installation instructions to install the VSP 4000 4450GTX-HTPWR+ switch.
<i>Installing the Virtual Services Platform 4450GSX-PWR+</i>	This document provides procedures and conceptual information to install the VSP 4000 4450GSX-PWR+.
<i>Installing the Virtual Services Platform 8000 Series</i>	This document provides procedures and conceptual information to install the Virtual Services Platform 8000 Series.
<i>Installing Transceivers and Optical Components on VSP Operating System Software</i>	This document provides conceptual information and procedures to install SFP, SFP+, and QSFP+ transceivers.
<i>Virtual Services Platform 8000 Series</i>	This document provides quick installation instructions to install the VSP 8000 Series hardware and software.

Table continues...

Technical document	Description
<i>Quick Install Guide for Virtual Services Platform 7200 Series</i>	This document provides quick installation instructions to install the Virtual Services Platform 7200 Series.
<i>Installing the Virtual Services Platform 7200 Series</i>	This document provides procedures and conceptual information to install the Virtual Services Platform 7200 Series.
<i>Installing the Virtual Services Platform 8600</i>	This document provides procedures and conceptual information to install the Extreme Networks Virtual Services Platform 8600.
<i>Chassis Quick Installation Guide for Virtual Services Platform 8600</i>	This document provides quick installation instructions and commissioning for the Virtual Services Platform 8600.
<i>Module Installation Poster for Virtual Services Platform 8600</i>	This document provides quick installation instructions for the Virtual Services Platform 8600 I/O and control (IOC) and switch fabric (SF) modules.

Table 4: Installation and commissioning Job Aid documents

Technical document	Description
<i>Installation Job Aid for Virtual Services Platform 8400</i>	This document provides job aids to install the VSP 4000 4450GTX-HT-PWR+.
<i>Installation Job Aid for the Virtual Services Platform 4850GTS</i>	This document provides job aids to install the VSP 4000 VSP4850GTS Series.
<i>Installation Job Aid for the Virtual Services Platform 4450GSX-PWR+</i>	This document provides job aids to install the VSP 4000 4450GSX-PWR+ .
<i>Installation Job Aid for Virtual Services Platform 7200 Series</i>	This document provides job aids to install the Virtual Services Platform 7200 Series.
<i>Installation Job Aid for Virtual Services Platform 8600</i>	This document provides job aids to install the Extreme Networks Virtual Services Platform 8600.

Table 5: Installation and commissioning reference documents

Technical document	Description
<i>Virtual Services Platform 4000 Series Regulatory Guide</i>	These documents provide information about regulatory conformities and compliance.
<i>Regulatory Reference for Virtual Services Platform 8000 Series</i>	
<i>Regulatory Reference for Virtual Services Platform 7200 Series</i>	
<i>Regulatory Reference for Virtual Services Platform 8600</i>	

Table continues...

Technical document	Description
<i>Locating the latest software and product release notes for Virtual Services Platform 4000 Series</i> <i>Locating Software and Release Notes for Virtual Services Platform 8000 Series</i> <i>Locating Software and Release Notes for Virtual Services Platform 7200 Series</i> <i>Locating Software and Release Notes for Virtual Services Platform 8600</i>	These documents ship with their respective VOSS components.
<i>Read Me First—Important Notes and Minimum Software Requirements for Virtual Services Platform 8600 Modules</i>	This document provides important read me first information and also provides the minimum software release for each IOC and SF module for Extreme Networks Virtual Services Platform 8600.

Administration and security

Administration and security documentation supports the configuration and management of systems data, resources, users, and security for the product.

Table 6: Administration and security documents

Technical document	Description
<i>Administering</i>	<p>This document provides procedures and conceptual information to administer base system-level topics such as Domain Name System, network clock synchronization, and network time protocol.</p> <p>It also describes important administration procedures to upgrade software, save configurations and shutdown, restart or reset the VOSS switches.</p>
<i>Configuring Security</i>	This document provides procedures and conceptual information to administer and configure security features for the VOSS switches.

Operations

Operations documentation provides information that enables you to configure services and applications, manage accounting and billing, and perform routine maintenance of hardware and software for the product.

Table 7: Operations documents

Technical document	Description
<i>Configuring VXLAN Gateway</i>	This document contains procedural and conceptual information to help you configure and manage VXLAN Gateway on supported platforms.
<i>Configuring VLANs, Spanning Tree, and NLB</i>	This document describes how to configure VLANs, Multiple Spanning Tree Protocol, and Rapid Spanning Tree Protocol. This document also includes information about how to configure the switches with Network Load Balancer clusters.
<i>Configuring QoS and ACL-Based Traffic Filtering</i>	The QoS documents provide procedures and conceptual information to administer and configure Quality of Service. These documents describe filters (access control lists, access control entries), policing, shaping, and DiffServ.
<i>Configuring IP Multicast Routing Protocols</i>	This document describes conceptual and procedural information to administer and configure IP Multicast Routing protocols.
<i>Configuring IPv4 Routing</i>	This document provides instructions to configure general routing operations.
<i>Configuring OSPF and RIP</i>	This document provides procedures and conceptual information to administer and configure Open Shortest Path First and the Routing Information Protocol.
<i>Configuring Link Aggregation, MLT, SMLT, and vIST</i>	This document describes how to configure and manage link aggregation and MultiLink Trunking.
<i>Configuring IPv6 Routing</i>	This document provides instructions to configure IPv6 routing operations. Operations include TCP and UDP, DHCP Relay, VRRP, static routes, OSPFv3, and RSMLT.
<i>Configuring BGP Services</i>	This document describes the conceptual and procedural information to configure Border Gateway Protocol (BGP) services on VSP Operating System Software (VOSS). This includes the configuration of internal BGP (iBGP) and external BGP (eBGP).
<i>Configuring Fabric Basics and Layer 2 Services</i>	This document provides instructions to configure SPBM operations on VOSS. Operations include Shortest Path Bridging MAC (SPBM), Intermediate System to Intermediate System (IS-IS).
<i>Configuring Fabric Layer 3 Services</i>	This document describes the conceptual and procedural information to configure IPv4 and IPv6 shortcuts, routes, policies and redistribution.

Table continues...

Technical document	Description
	Operations include Unicast configuration of Layer 3 Virtual Services Network (VSN).
<i>Configuring Fabric Multicast Services</i>	This document describes the conceptual and procedural information to configure PIM Gateway to provide multicast interdomain communication between an SPB network and a Protocol Independent Multicast-Sparse Mode (PIM-SM) network.

Fault and performance management

Fault and performance management documentation enables you to manage faults, and measure and optimize the performance of the product.

Table 8: Fault and performance management documents

Technical documents	Description
<i>Troubleshooting</i>	<p>This document describes common problems and error messages with the techniques to resolve them as well as information about traps and command logging.</p> <p>This document also provides information about troubleshooting tools.</p>
<i>Monitoring Performance</i>	<p>This document provides information about switch management tools, the dynamic network applications feature, and graphing of port and chassis statistics.</p> <p>This document also provides information about how to prevent faults and improve the performance of the product, including configuration procedures for link state change, key health indicators, and logs and traps.</p>
<i>Configuring the SLA Mon Agent</i>	This document provides conceptual and procedural information to perform end-to-end network Quality of Service (QoS) validation and to distribute monitoring devices.

Chapter 5: Text conventions

This section describes the text conventions used throughout the VSP Operating System Software (VOSS) documentation suite.

Plain Courier text

Plain Courier text indicates command names, options, and text that you must enter.

Example: Enter `show ip route`.

Plain Courier text also indicates command syntax and system output, for example, prompts and system messages.

Example: `Error: Invalid command syntax [Failed][2013-03-22 13:37:03.303-04:00]`

Bold text

Bold text indicates the GUI object name you must act upon.

Example: Click **OK**.

Example: On the **Tools** menu, choose **Options**.

Special messages

A special message identifies a risk associated with an action. A special message can also explain how to avoid or reduce the risk. The following are examples of the different types of special messages and the purposes they serve.

Important:

This special message draws your attention to key information that does not carry with it the risk of personal injury, death, system failure, service interruption, loss of data, damage to equipment, or electrostatic discharge.

 Voltage:**Risk of injury or death from high voltage or electric shock**

This special message indicates where an immediate hazard exists that, if not avoided, can result in serious personal injury or death through high voltage or electric shock.

 Danger:**Risk of serious personal injury or death**

This special message signals where an immediate hazard exists that, if not avoided, can result in minor or moderate personal injury.

 Warning:**Risk of equipment damage**

This special message warns that a potential hazard exists that, if not avoided, can result in harm to hardware or equipment.

 Caution:**Risk of system failure, service interruption, loss of data, or harm to software**

This special message cautions against practices that are not safe or are potential hazards not covered by danger or warning messages.

 Electrostatic alert:**Risk of service loss from electrostatic discharge**

This special message indicates the risk of electrostatic discharge from electrostatic-discharge sensitive (ESDS) devices. It cautions the user to observe precautions for handling ESDS devices.

Angle brackets

Angle brackets (< >) indicate that you choose the text to enter based on the description inside the brackets. Do not type the brackets when you enter the command.

Example: If the command syntax is `cfm maintenance-domain maintenance-level <0-7>`, you can enter `cfm maintenance-domain maintenance-level 4`.

Braces

Braces ({ }) indicate required elements in syntax descriptions. Do not type the braces when you enter the command.

Example: If the command syntax is `ip address {A.B.C.D}`, you must enter the IP address in dotted, decimal notation.

Brackets

Brackets ([]) indicate optional elements in syntax descriptions. Do not type the brackets when you enter the command.

Example: If the command syntax is `show ip interface [gigabitethernet]`, you can enter either `show ip interface` or `show ip interface gigabitethernet`.

Ellipses

An ellipsis (...) indicates that you repeat the last element of the command as needed.

Example: If the command syntax is `ethernet/2/1 [<parameter> <value>] . . .`, you enter `ethernet/2/1` and as many parameter-value pairs as you need.

Italic text

Italic text indicates book titles.

Example: *Release Notes*

Separator

A greater than sign (>) shows separation in menu paths.

Example: In the Navigation tree, open the following folders: **Configuration > Edit**.

Vertical line

A vertical line (|) separates choices for command keywords and arguments. Enter only one choice. Do not type the vertical line when you enter the command.

Example: If the command syntax is `access-policy by-mac action { allow | deny } ,` you enter either `access-policy by-mac action allow` or `access-policy by-mac action deny`, but not both.

Chapter 6: Modular, task-based information

Modular, task-based information is organized by specific principles of structure, information type, and task focus. The documentation is based upon the tasks that the user must perform to fulfill their job function. The sequence and dependencies among the tasks is represented in work flows and task flows. The tasks are supported by conceptual and reference information.

Work flows and task flows

Task-based documentation emphasizes procedural information. Flowcharts provide the primary navigation to tasks and procedures whenever there is a required order and flow to the actions you must perform to complete a given job.

Work flows and task flows are flowcharts that illustrate which tasks or procedures and decisions occur in an activity. The flowcharts guide you through any type of activity on the product, whether it is initial installation, configuration, upgrades, routine maintenance, or troubleshooting.

Each flowchart provides the prerequisites and links to the tasks or procedures that you need to perform. Always follow the work flows and task flows so that you perform the required procedures in the correct order.

To understand the relationship between work flows, task flows, and procedures, see the following figure.

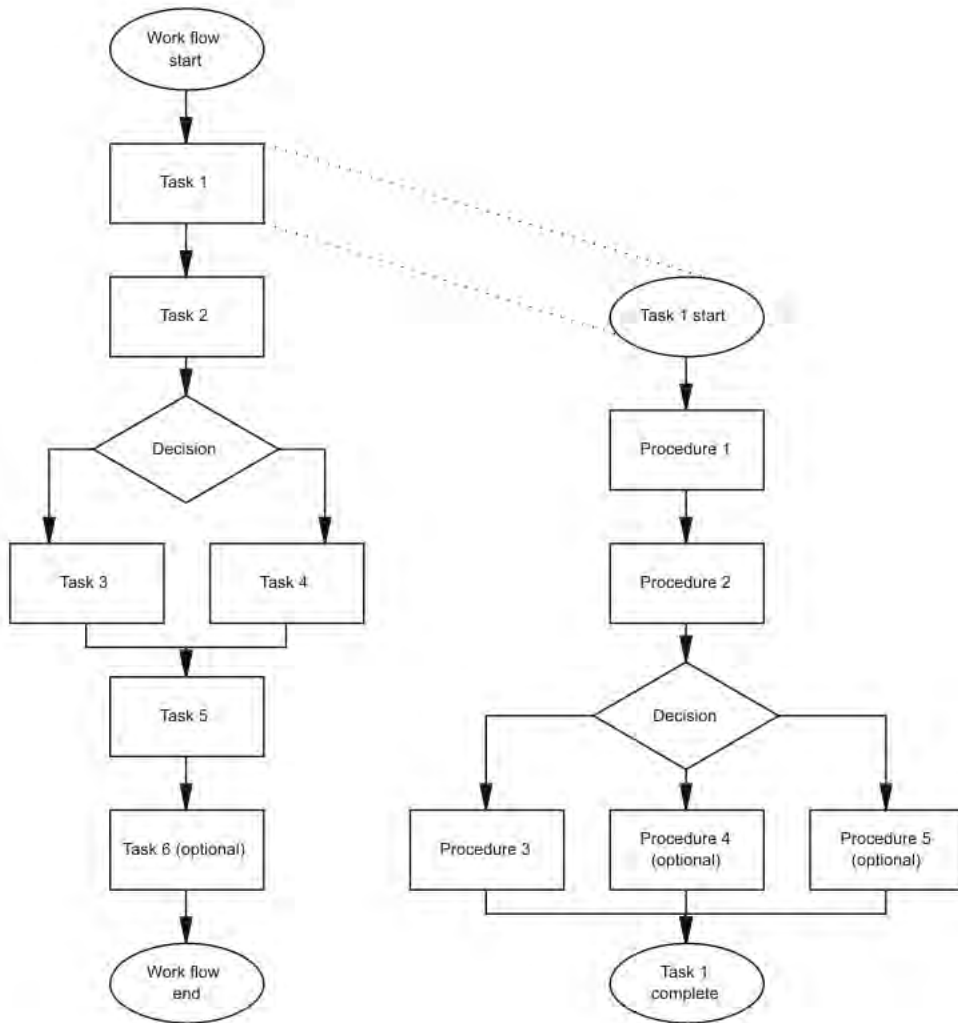


Figure 1: Work flows, task flows, and procedures in task-based documentation