

# **VOSS Feature Support Matrix**

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# **Chapter 1: About this Document**

This section discusses the purpose of this document, ways to provide feedback, additional help, and information regarding other Extreme Networks publications.

## **Purpose**

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

- Extreme Networks VSP 4000 Series (includes VSP 4450 Series)
- Extreme Networks VSP 4900 Series
- Extreme Networks VSP 7200 Series
- Extreme Networks VSP 7400 Series
- Extreme Networks VSP 8000 Series (includes VSP 8200 Series and VSP 8400 Series)
- Extreme Networks VSP 8600 Series
- Extreme Networks XA1400 Series

### Note:

VOSS is licensed on the XA1400 Series as a Fabric Connect VPN (FCVPN) application, which includes a subset of VOSS features. FCVPN transparently extends Fabric Connect services over third-party provider networks.

This document identifies the release that first introduced feature support on a hardware product. Each new release includes all the features from previous releases unless specifically stated otherwise. Use this document to determine if features are supported on your product.

### Note:

Release 4.1 was the first VOSS release. Release numbers earlier than 4.1 are releases specific to the particular product, for example, VSP 4000 4.0.

Releases that are not part of the main VOSS release cycle begin with the product name, for example, VSP 8600 6.3.

Different models within a product family can be introduced in different software releases. The tables in this document include the earliest release number. To understand which release is the minimum software release for each model, see Release Notes for VOSS.

This document arranges the features alphabetically, based on how those features are included in the configuration documents. For example, <u>Table 16: Denial-of-service attack prevention product support on page 20 includes both Directed Broadcast and High Secure Mode.</u>

The tables in this document also appear in the conceptual feature content of the configuration documents.

## **Documentation and Training**

Find Extreme Networks product information at the following locations:

**Current Product Documentation** 

Release Notes

Hardware/software compatibility matrices for Campus and Edge products

Supported transceivers and cables for Data Center products

Other resources, like white papers, data sheets, and case studies

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For details, visit <a href="https://www.extremenetworks.com/education/">www.extremenetworks.com/education/</a>.

## **Getting Help**

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

Extreme Portal Search the GTAC (Global Technical Assistance Center) knowledge base; manage support cases and service contracts; download software; and obtain product licensing, training, and certifications.

The Hub

A forum for Extreme Networks customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

**Call GTAC** 

For immediate support: (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

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

- Your Extreme Networks service contract number, or serial numbers for all involved Extreme Networks products
- · A description of the failure
- A description of any actions 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

#### **Subscribe to Service Notifications**

You can subscribe to email notifications for product and software release announcements, Vulnerability Notices, and Service Notifications.

- 1. Go to www.extremenetworks.com/support/service-notification-form.
- 2. Complete the form (all fields are required).
- 3. Select the products for which you would like to receive notifications.
  - Note:

You can modify your product selections or unsubscribe at any time.

4. Select Submit.

## **Providing Feedback**

The Information Development team at Extreme Networks has made every effort to ensure the accuracy and completeness of this document. 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 we especially want to know about:

- Content errors, or confusing or conflicting information.
- Improvements that would help you find relevant information in the document.
- · Broken links or usability issues.

If you would like to provide feedback, you can do so in three ways:

- In a web browser, select the feedback icon and complete the online feedback form.
- Access the feedback form at https://www.extremenetworks.com/documentation-feedback/.
- Email us at documentation@extremenetworks.com.

Provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.

# **Chapter 2: VOSS Features A to C**

Table 1: Access Control Entry product support

Feature	Product	Release introduced		
For configuration details, see Configuring QoS and ACL-Based Traffic Filtering for VOSS.				
	Platform specific considerations for ACL and ACE behavior are documented in ACL Filters Behavior Differences, which is in Configuring QoS and ACL-Based Traffic Filtering for VOSS.			
QoS Access Control Entries (ACE)	VSP 4450 Series	VSP 4000 4.0		
	VSP 4900 Series	VOSS 8.1		
	VSP 7200 Series	VOSS 4.2.1		
	VSP 7400 Series	VOSS 8.0		
	VSP 8200 Series	VSP 8200 4.0		
	VSP 8400 Series	VOSS 4.2		
	VSP 8600 Series	VSP 8600 6.2		
	XA1400 Series	VOSS 8.0.50		
Security ACEs	VSP 4450 Series	VSP 4000 4.0		
	VSP 4900 Series	VOSS 8.1		
	VSP 7200 Series	VOSS 4.2.1		
	VSP 7400 Series	VOSS 8.0		
	VSP 8200 Series	VSP 8200 4.0		
	VSP 8400 Series	VOSS 4.2		
	VSP 8600 Series	VSP 8600 4.5		
	XA1400 Series	VOSS 8.0.50		

**Table 2: Access Control List product support** 

Feature	Product	Release introduced
For configuration details, see Configuring QoS and ACL-Based Traffic Filtering for VOSS.		
Platform specific considerations for ACL and ACE behavior are documented in ACL Filters Behavior Differences, which is in Configuring QoS and ACL-Based Traffic Filtering for VOSS.		
Access Control List (ACL)-based filtering, including egress ACLs,	VSP 4450 Series	VSP 4000 4.0

Feature	Product	Release introduced
ingress ACLs, Layer 2 to Layer 4 filtering, port-based, and VLAN-based	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
54554	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
InVSN Filter	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
IPv6 ingress filters	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
IPv6 egress filters	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 3: Address Resolution Protocol product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring IPv4 Routing for VOSS.	

Feature	Product	Release introduced
Address Resolution Protocol	VSP 4450 Series	VSP 4000 4.0
(ARP) including Proxy ARP and Static ARP	VSP 4900 Series	VOSS 8.1
Static ARF	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Gratuitous ARP filtering	VSP 4450 Series	VOSS 4.2
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

**Table 4: Advanced Feature Bandwidth Reservation product support** 

Feature	Product	Release introduced
For configuration details, see Admin	nistering VOSS.	
Advanced Feature Bandwidth	VSP 4450 Series	Not Supported
Reservation	VSP 4900 Series	Not Supported
Note:	VSP 7200 Series	Not Supported
If your switch does not have	VSP 7400 Series	VOSS 8.0
this boot flag, it is because	VSP 8200 Series	Not Supported
the hardware reserves the bandwidth automatically with	VSP 8400 Series	Not Supported
no user interaction.	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50
		XA1480 only- demonstration feature

Table 5: Alternative routes product support

Feature	Product	Release introduced
Alternative routes for IPv4	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1

Feature	Product	Release introduced
For configuration details, see	VSP 7200 Series	VOSS 4.2.1
Configuring IPv4 Routing for VOSS.	VSP 7400 Series	VOSS 8.0
<del></del>	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Alternative routes for IPv6	VSP 4450 Series	VOSS 5.1
For configuration details, see	VSP 4900 Series	VOSS 8.1
Configuring IPv6 Routing for	VSP 7200 Series	VOSS 5.1
VOSS.	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported

**Table 6: Application Telemetry product support** 

Feature	Product	Release introduced
For configuration details, see Monitoring Performance for VOSS.		
Application Telemetry	VSP 4450 Series	VOSS 7.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.1
	VSP 8400 Series	VOSS 7.1
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
Application Telemetry Host Monitoring	VSP 4450 Series	VOSS 8.0.5
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 8.0.5
	VSP 7400 Series	VOSS 8.0.5
	VSP 8200 Series	VOSS 8.0.5
	VSP 8400 Series	VOSS 8.0.5
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 7: Auto-Negotiation product support** 

Feature	Product	Release introduced
For configuration details, see Administering VOSS.		
Auto-Negotiation	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
		Switch models:
		VSP4900-24S and     VSP4900-48P - all fixed ports
		VSP4900-12MXU-12XE - all fixed ports, with ports 13 to 24 at 1 Gbps only
		VSP4900-24XE - all fixed ports at 1 Gbps only
		VIM5-4XE at 1 Gbps only and VIM5-4YE at 25 Gbps only
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

Table 8: Bidirectional Forwarding Detection (BFD) product support

Feature	Product	Release introduced
For configuration details, see Admir	nistering VOSS.	
BFD (IPv4)	VSP 4450 Series	VOSS 8.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 8.1
	VSP 7400 Series	VOSS 8.1
	VSP 8200 Series	VOSS 8.1
	VSP 8400 Series	VOSS 8.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
BFD (IPv6)	VSP 4450 Series	VOSS 8.1 demonstration feature
	VSP 4900 Series	VOSS 8.1 demonstration feature
	VSP 7200 Series	VOSS 8.1 demonstration feature
	VSP 7400 Series	VOSS 8.1 demonstration feature

Feature	Product	Release introduced
	VSP 8200 Series	VOSS 8.1 demonstration feature
	VSP 8400 Series	VOSS 8.1 demonstration feature
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 9: Border Gateway Protocol product support** 

Feature	Product	Release introduced	
For configuration details, see Configuring BGP Services for VOSS.			
Border Gateway Protocol for IPv4	VSP 4450 Series	VSP 4000 4.0	
(BGPv4)	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 4.1	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	
BGP+ (BGPv4 for IPv6).	VSP 4450 Series	VOSS 5.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 5.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 5.0	
	VSP 8400 Series	VOSS 5.0	
	VSP 8600 Series	VSP 8600 6.2	
	XA1400 Series	Not Supported	
BGPv6	VSP 4450 Series	VOSS 7.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 7.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 7.0	
	VSP 8400 Series	VOSS 7.0	
	VSP 8600 Series	Not Supported	
	XA1400 Series	Not Supported	
External BGP (eBGP)	VSP 4450 Series	VSP 4000 4.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	

Feature	Product	Release introduced
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Internal BPG (iBGP)	VSP 4450 Series	VOSS 4.2
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Route metric for BGP route	VSP 4450 Series	VOSS 6.1
redistribution	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50
iBGP over user-created VRFs	VSP 4450 Series	VOSS 8.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 8.1
	VSP 7400 Series	VOSS 8.1
	VSP 8200 Series	VOSS 8.1
	VSP 8400 Series	VOSS 8.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 10: Bridge Protocol Data Unit (BPDU) Guard product support

Feature	Product	Release introduced
For configuration details, see Configuring VLANs, Spanning Tree, and NLB for VOSS.		
,	VSP 4450 Series	VOSS 6.0
Guard	VSP 4900 Series	VOSS 8.1

Feature	Product	Release introduced
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	VOSS 8.0.50

Table 11: Certificate order priority product support

Feature	Product	Release introduced
For configuration details, see Config	guring Security for VOSS.	
Certificate order priority	VSP 4450 Series	VOSS 5.1.2
Note:	VSP 4900 Series	VOSS 8.1
VOSS Releases 6.0 and	VSP 7200 Series	VOSS 5.1.2
6.0.1 do not support this	VSP 7400 Series	VOSS 8.0
feature.	VSP 8200 Series	VOSS 5.1.2
	VSP 8400 Series	VOSS 5.1.2
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

**Table 12: Channelization product support** 

Feature	Product	Release introduced
For configuration details, see Admir	nistering VOSS.	
Channelization of 40 Gbps ports	VSP 4450 Series	Not Applicable
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
		VSP 7432CQ only
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	Not Applicable
Channelization of 100 Gbps ports	VSP 4450 Series	Not Applicable
	VSP 4900 Series	Not Applicable
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	VOSS 8.0

Feature	Product	Release introduced
		VSP 7432CQ only
	VSP 8200 Series	Not Applicable
	VSP 8400 Series	Not Supported
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Applicable

Table 13: Client and Server product support

Feature	Product	Release introduced	
For configuration details, see Administering VOSS.			
File Transfer Protocol (FTP) server	VSP 4450 Series	VSP 4000 4.0	
and client (IPv4)	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VSP 8200 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	
File Transfer Protocol (FTP) server	VSP 4450 Series	VOSS 4.1	
and client (IPv6)	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 4.1	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 6.2	
	XA1400 Series	Not Supported	
Hypertext Transfer Protocol	VSP 4450 Series	VOSS 4.1	
(HTTP) and Hypertext Transfer Protocol Secure (HTTPS) (IPv4)	VSP 4900 Series	VOSS 8.1	
1 Totocol Secure (11111 3) (II V4)	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VSP 8200 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	
Hypertext Transfer Protocol	VSP 4450 Series	VOSS 4.1	
(HTTP) and Hypertext Transfer Protocol Secure (HTTPS) (IPv6)	VSP 4900 Series	VOSS 8.1	

Feature	Product	Release introduced
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
Remote Login (Rlogin) server/	VSP 4450 Series	VSP 4000 4.0
client (IPv4)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Rlogin server (IPv6)	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
Rlogin client (IPv6)	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
Remote Shell (RSH) server/client	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Secure Copy (SCP)	VSP 4450 Series	VSP 4000 4.0
Note:	VSP 4900 Series	VOSS 8.1
The switch does not support	VSP 7200 Series	VOSS 5.0
the WinSCP client.	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 5.0
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Secure File Transfer Protocol	VSP 4450 Series	VOSS 4.2
(SFTP) server (IPv4)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Secure File Transfer Protocol	VSP 4450 Series	VOSS 4.2
(SFTP) server (IPv6)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
Telnet server and client (IPv4)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
		Table continues

Feature	Product	Release introduced
Telnet server and client (IPv6)	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
Trivial File Transfer Protocol	VSP 4450 Series	VSP 4000 4.0
(TFTP) server and client (IPv4)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
TFTP server (IPv6)	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
TFTP client (IPv6)	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 14: Command Line Interface product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring User Interfaces and Operating	Systems for VOSS.
Command Line Interface (CLI)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 4200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

**Table 15: Connectivity Fault Management product support** 

Feature	Product	Release introduced
For configuration details, see <u>Troubleshooting VOSS</u> .		
IEEE 802.1ag Connectivity Fault	VSP 4450 Series	VSP 4000 4.0
Management (CFM):	VSP 4900 Series	VOSS 8.1
Layer 2 Ping	VSP 7200 Series	VOSS 4.2.1
TraceRoute	VSP 7400 Series	VOSS 8.0
• TraceTree	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
CFM configuration on C-VLANs	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	Not Supported
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

# **Chapter 3: VOSS Features D to F**

Table 16: Denial-of-service attack prevention product support

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
Directed Broadcast	VSP 4450 Series	VOSS 5.1.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1.1
	VSP 8400 Series	VOSS 5.1.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
High Secure mode (hsecure boot configuration flag)	VSP 4450 Series	VSP 4450 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

**Table 17: DHCPv6 Guard product support** 

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
DHCPv6 Guard	VSP 4450 Series	VOSS 5.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.0

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 5.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 18: Differentiated Services product support** 

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring QoS and ACL-Based Traffic Filtering for VOSS.		
Differentiated Services (DiffServ)	VSP 4450 Series	VSP 4000 4.0	
including Per-Hop Behavior	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VSP 8200 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	

Table 19: Digital Certificate/PKI product support

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
Digital Certificate/PKI	VSP 4450 Series	VOSS 5.1.2
Note:	VSP 4900 Series	VOSS 8.1
VOSS Releases 6.0 and	VSP 7200 Series	VOSS 5.1.2
6.0.1 do not support this	VSP 7400 Series	VOSS 8.0
feature.	VSP 8200 Series	VOSS 5.1.2
	VSP 8400 Series	VOSS 5.1.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50
Subject alternative name	VSP 4450 Series	VOSS 7.1.3
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.1.3
	VSP 7400 Series	VOSS 8.0.6
	VSP 8200 Series	VOSS 7.1.3
	VSP 8400 Series	VOSS 7.1.3
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 20: Distributed Virtual Routing product support** 

Feature	Product	Release introduced
For configuration details, see Configuring IPv4 Routing for VOSS.		
Distributed Virtual Routing (DvR)	VSP 4450 Series	Not Supported
Controller	VSP 4900 Series	VOSS 8.1.5
Important:  Because of a change in VOSS 6.0.1.2, the best		VSP4900-12MXU-12XE, VSP4900-24S, and VSP4900-24XE only
practice is to use a <i>minimum</i>	VSP 7200 Series	VOSS 6.0.1
software version of 6.0.1.2 in DvR deployments.	VSP 7400 Series	VOSS 8.0
BVIX deployments.	VSP 8200 Series	VOSS 6.0.1
	VSP 8400 Series	VOSS 6.0.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
Distributed Virtual Routing (DvR)	VSP 4450 Series	VOSS 6.1
Leaf	VSP 4900 Series	VOSS 8.1
Important:	VSP 7200 Series	VOSS 6.0.1
Because of a change in	VSP 7400 Series	VOSS 8.0
VOSS 6.0.1.2, the best practice is to use a <i>minimum</i> software version of 6.0.1.2 in	VSP 8200 Series	VOSS 6.0.1
	VSP 8400 Series	VOSS 6.0.1
DvR deployments.	VSP 8600 Series	Not supported
	XA1400 Series	Not Supported
Distributed Virtual Routing (DvR)	VSP 4450 Series	VOSS 6.1
In-band Management	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0.1
	VSP 8400 Series	VOSS 6.0.1
	VSP 8600 Series	Not supported
	XA1400 Series	Not Supported

**Table 21: Domain Name Service product support** 

Feature	Product	Release introduced
For configuration details, see Administering VOSS.		
Domain Name Service (DNS)	VSP 4450 Series	VSP 4000 4.0
client (IPv4)	VSP 4900 Series	VOSS 8.1

Feature	Product	Release introduced
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
DNS client (IPv6)	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported

Table 22: Dynamic ARP Inspection (DAI) product support

Feature	Product	Release introduced
For configuration details, see Config	guring Security for VOSS.	
Dynamic ARP Inspection (DAI)	VSP 4450 Series	VOSS 6.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 23: Dynamic Host Configuration Protocol product support** 

Feature	Product	Release introduced
For configuration details, see Configuring IPv4 Routing for VOSS.		
Dynamic Host Configuration	VSP 4450 Series	VSP 4000 4.0
Protocol (DHCP) Relay	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
DHCP Option 82	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

Table 24: Dynamic Host Configuration Protocol Relay for IPv6 product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring IPv6 Routing for VOSS.		
IPv6 DHCP Relay	VSP 4450 Series	VOSS 4.1	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 4.1	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 6.2	
	XA1400 Series	Not Supported	

Table 25: Dynamic Host Configuration Protocol Snooping and Neighbor Discovery Inspection product support

Feature	Product	Release introduced
For configuration details, see Config	guring Security for VOSS.	
DHCP Snooping(IPv4)	VSP 4450 Series	VOSS 6.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	Not Supported

Feature	Product	Release introduced
	XA1400 Series	VOSS 8.0.50
		Not Supported on Flex-UNI
DHCP Snooping (IPv6)	VSP 4450 Series	VOSS 5.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
Neighbor Discovery Inspection	VSP 4450 Series	VOSS 5.1
(IPv6)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 26: Dynamic Nickname Assignment product support** 

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
Dynamic Nickname Assignment	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0.5
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 27: Egress Tunnel Shaping product support** 

Feature	Product	Release introduced
For configuration details, see Configuring QoS and ACL-Based Traffic Filtering for VOSS.		
Egress Tunnel Shaping	VSP 4450 Series	Not Supported

Feature	Product	Release introduced
	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	Not Supported
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.1

**Table 28: Endpoint Tracking product support** 

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
Endpoint Tracking	VSP 4450 Series	Not Supported	
	VSP 4900 Series	Not Supported	
	VSP 7200 Series	VOSS 8.1.1	
	VSP 7400 Series	VOSS 8.1.1	
	VSP 8200 Series	VOSS 8.1.1	
	VSP 8400 Series	VOSS 8.1.1	
	VSP 8600 Series	Not Supported	
	XA1400 Series	Not Supported	

Table 29: Energy Efficient Ethernet product support

Feature	Product	Release introduced
For configuration details, see Admir	nistering VOSS.	
Energy Efficient Ethernet (EEE)	VSP 4450 Series	Not Supported
	VSP 4900 Series	VOSS 8.1
		All fixed ports on VSP4900-48P and ports 1/1-1/12 on VSP4900-12MXU-12XE
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	VOSS 8.1
		8424GT
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 30: Energy Saver product support** 

Feature	Product	Release introduced	
For configuration details, see Admir	For configuration details, see Administering VOSS.		
Energy Saver	VSP 4450 Series	VOSS 7.0	
	VSP 4900 Series	VOSS 8.1	
		VSP4900-48P and ports 1/1 to 1/12 onVSP4900-12MXU-12XE only	
	VSP 7200 Series	VOSS 7.0	
		VSP 7254XTQ only	
	VSP 7400 Series	Not Supported	
	VSP 8200 Series	Not Supported	
	VSP 8400 Series	VOSS 7.0	
	VSP 8600 Series	Not Supported	
	XA1400 Series	Not Supported	

**Table 31: Enhanced Secure Mode product support** 

Feature	Product	Release introduced
For configuration details, see Administering VOSS.		
Enhanced Secure mode	VSP 4450 Series	VOSS 4.2
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50
Enhanced Secure mode for JITC	VSP 4450 Series	VOSS 5.1
and non-JITC sub-modes.	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 32: Enterprise Device Manager product support** 

Feature	Product	Release introduced
For configuration details, see Configuring User Interfaces and Operating Systems for VOSS.		
Enterprise Device Manager (EDM)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Read-Only user for EDM	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

Table 33: Entity MIB product support

Feature	Product	Release introduced	
For configuration details, see Admin	For configuration details, see Administering VOSS.		
Entity MIB - Physical Table	VSP 4450 Series	VOSS 6.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 6.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 6.0	
	VSP 8400 Series	VOSS 6.0	
	VSP 8600 Series	VSP 8600 6.1	
	XA1400 Series	VOSS 8.0.50	
Entity MIB enhancements and	VSP 4450 Series	VOSS 6.1.2	
integration for the following:	VSP 4900 Series	VOSS 8.1	
Physical Table	VSP 7200 Series	VOSS 6.1.2	
Alias Mapping Table	VSP 7400 Series	VOSS 8.0	
Physical Contains Table	VSP 8200 Series	VOSS 6.1.2	

Feature	Product	Release introduced
Last Change Time object	VSP 8400 Series	VOSS 6.1.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50

Table 34: Equal Cost Multiple Path for IPv4 product support

Feature	Product	Release introduced
For configuration details, see Config	guring IPv4 Routing for VOSS.	
Equal Cost Multiple Path (ECMP)	VSP 4450 Series	VSP 4000 4.0
for IPv4	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

Table 35: Equal Cost Multiple Path for IPv6 product support

Feature	Product	Release introduced	
For configuration details, see the following	For configuration details, see the following documents:		
Configuring IPv4 Routing for VOS	<u>s</u>		
Configuring IPv6 Routing for VOS	<u>s</u>		
Configuring BGP Services for VOSS			
ECMP for IPv6	VSP 4450 Series	VOSS 5.1	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 5.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 5.1	
	VSP 8400 Series	VOSS 5.1	
	VSP 8600 Series	VSP 8600 6.2	
	XA1400 Series	Not Supported	

**Table 36: ECMP Pathlist with Fabric Connect product support** 

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS and Configuring		
IPv4 Routing for VOSS.		

Feature	Product	Release introduced
ECMP Pathlist with Fabric	VSP 4450 Series	VOSS 8.1.5
Connect (IS-IS routes)	VSP 4900 Series	VOSS 8.1.5
	VSP 7200 Series	VOSS 8.1.5
	VSP 7400 Series	VOSS 8.1.5
	VSP 8200 Series	VOSS 8.1.5
	VSP 8400 Series	VOSS 8.1.5
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.1.5

Table 37: E-Tree and Private VLANs product support

Feature	Product	Release introduced
For configuration details, see the following documents:		
E-Tree - Configuring Fabric Basic	s and Layer 2 Services for VOSS	
Private VLANs - Configuring VLAI	Ns, Spanning Tree, and NLB for VOS	<u>S</u>
MLT and Private VLANs - Configu	ring Link Aggregation, MLT, SMLT an	d vIST for VOSS
E-Tree and Private VLANs	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 38: Extensible Authentication Protocol over LAN product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring Security for VOSS.	
Extensible Authentication Protocol	VSP 4450 Series	VOSS 4.1
(EAP) and EAP over LAN (EAPoL)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Feature	Product	Release introduced
EAPoL MHMA-MV	VSP 4450 Series	VOSS 5.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
EAPoL enhancements: Enhanced	VSP 4450 Series	VOSS 6.1
MHMV, Fail Open VLAN, Guest VLAN	VSP 4900 Series	VOSS 8.1
VEAIN	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
Non EAPoL MAC RADIUS	VSP 4450 Series	VOSS 4.2.1
authentication	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2.1
	VSP 8400 Series	VOSS 4.2.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
QoS Priority Assignment	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 39: Extreme Insight product support

Feature	Product	Release introduced
For configuration details, see Configuring User Interfaces and Operating Systems for VOSS.		
Extreme Insight	VSP 4450 Series	Not Supported
	VSP 4900 Series	VOSS 8.1.5
		VSP4900-12MXU-12XE and VSP4900-24XE only
	VSP 7200 Series	Not Supported
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	Not Supported
	VSP 8400 Series	Not Supported
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 40: Extreme Management Center backup configuration ZIP file product support

Feature	Product	Release introduced
Extreme Management Center	VSP 4450 Series	VOSS 6.1.2
backup configuration ZIP file	VSP 4900 Series	VOSS 8.1
For more information, see	VSP 7200 Series	VOSS 6.1.2
Extreme Management Center documentation.	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1.2
	VSP 8400 Series	VOSS 6.1.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50

**Table 41: Fabric Attach product support** 

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
Fabric Attach	VSP 4450 Series	VOSS 5.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 5.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 5.0	
	VSP 8400 Series	VOSS 5.0	
	VSP 8600 Series	VSP 8600 6.3	
	XA1400 Series	Not Supported	

**Table 42: Fabric Attach Zero Touch Client Attachment product support** 

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
Fabric Attach Zero Touch Client	VSP 4450 Series	VOSS 6.0	
Attachment	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 6.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 6.0	
	VSP 8400 Series	VOSS 6.0	
	VSP 8600 Series	VSP 8600 6.3	
	XA1400 Series	Not Supported	

Table 43: Fabric Extend product support

Feature	Product	Release introduced	
For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.			
Fabric Extend	VSP 4450 Series	VOSS 5.0*	
*Platforms require an Open	VSP 4900 Series	VOSS 8.1	
Networking Adapter (ONA).	VSP 7200 Series	VOSS 5.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 5.0	
	VSP 8400 Series	VOSS 5.0	
	VSP 8600 Series	Not Supported	
	XA1400 Series	VOSS 8.0.50	
Fabric Extend over IPsec	VSP 4450 Series	Not Supported	
	VSP 4900 Series	Not Supported	
	VSP 7200 Series	Not Supported	
	VSP 7400 Series	Not Supported	
	VSP 8200 Series	Not Supported	
	VSP 8400 Series	Not Supported	
	VSP 8600 Series	Not Supported	
	XA1400 Series	VOSS 8.0.50	
ECMP support for Fabric Extend	VSP 4450 Series	Not Supported	
	VSP 4900 Series	Not Supported	
	VSP 7200 Series	VOSS 6.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 6.0	

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

**Table 44: Fabric Mode product support** 

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
Fabric BCB mode	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Fabric BEB mode	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50

**Table 45: Fabric RSPAN product support** 

Feature	Product	Release introduced
For configuration details, see Troub	leshooting VOSS.	
Fabric RSPAN (Mirror to I-SID)	VSP 4450 Series	VOSS 6.0
		Flow-based mirroring into single I-SID only
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0

Feature	Product	Release introduced
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

### Table 46: FDB Protected by Port product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring VLANs, Spanning Tree, and NLB for VOSS.		
FDB protected by port (MAC	VSP 4450 Series	VSP 4000 4.0	
security limit-learning)	VSP 4900 Series	Not Supported	
	VSP 7200 Series	Not Supported	
	VSP 7400 Series	Not Supported	
	VSP 8200 Series	Not Supported	
	VSP 8400 Series	Not Supported	
	VSP 8600 Series	Not Supported	
	XA1400 Series	Not Supported	

Table 47: Flight Recorder product support

Feature	Product	Release introduced
For configuration details, see Troub	leshooting VOSS.	
Flight Recorder for system health monitoring	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

**Table 48: Forward Error Correction product support** 

Feature	Product	Release introduced
For configuration details, see Administering VOSS.		
Forward Error Correction (FEC) (configurable)	VSP 4450 Series	Not Applicable
	VSP 4900 Series	VOSS 8.1
		VIM5-4YE at 25 Gbps
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	VOSS 8.0

Feature	Product	Release introduced
	VSP 8200 Series	Not Supported
	VSP 8400 Series	VOSS 8.0
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Applicable

# **Chapter 4: VOSS Features G to I**

Table 49: High-Availability product support

Feature	Product	Release introduced
For configuration details, see Administering VOSS.		
High Availability-CPU (HA-CPU)	VSP 4450 Series	Not Applicable
for a standalone switch	VSP 4900 Series	Not Applicable
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	Not Applicable
	VSP 8200 Series	Not Applicable
	VSP 8400 Series	Not Applicable
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Applicable
High Availability-CPU (HA-CPU)	VSP 4450 Series	Not Applicable
for Layer 2 with Simplified vIST	VSP 4900 Series	Not Applicable
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	Not Applicable
	VSP 8200 Series	Not Applicable
	VSP 8400 Series	Not Applicable
	VSP 8600 Series	VSP 8600 6.3
	XA1400 Series	Not Applicable
High Availability-CPU (HA-CPU)	VSP 4450 Series	Not Applicable
for Layer 3 with Simplified vIST	VSP 4900 Series	Not Applicable
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	Not Applicable
	VSP 8200 Series	Not Applicable
	VSP 8400 Series	Not Applicable
	VSP 8600 Series	VSP 8600 6.3
	XA1400 Series	Not Applicable

Table 50: IEEE 802.3X Pause Frame Transmit product support

Feature	Product	Release introduced
For configuration details, see Admir	nistering VOSS.	
IEEE 802.3X Pause frame	VSP 4450 Series	VOSS 6.0
transmit	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.1.50

**Table 51: Internet Control Message Protocol product support** 

Feature	Product	Release introduced
Internet Control Message Protocol	VSP 4450 Series	VSP 4000 4.0
(ICMP)	VSP 4900 Series	VOSS 8.1
For configuration details, see	VSP 7200 Series	VOSS 4.2.1
Configuring IPv4 Routing for VOSS.	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
ICMP broadcast and multicast	VSP 4450 Series	VOSS 5.1
enable or disable	VSP 4900 Series	VOSS 8.1
For configuration details, see the	VSP 7200 Series	VOSS 5.1
following documents:	VSP 7400 Series	VOSS 8.0
Configuring IPv4 Routing for VOSS	VSP 8200 Series	VOSS 5.1
Configuring IPv6 Routing for	VSP 8400 Series	VOSS 5.1
VOSS	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

**Table 52: Internet Group Management Protocol product support** 

Feature	Product	Release introduced
For configuration details, see Configuring IP Multicast Routing Protocols for VOSS.		

Feature	Product	Release introduced
Internet Group Management	VSP 4450 Series	VSP 4000 4.0
Protocol (IGMP), including virtualization	VSP 4900 Series	VOSS 8.1
viitualization	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

Table 53: Internet Key Exchange product support

Feature	Product	Release introduced
For configuration details, see Config	guring Security for VOSS.	
Internet Key Exchange (IKE) v2	VSP 4450 Series	VOSS 5.1.2
Note:	VSP 4900 Series	VOSS 8.1
VOSS Releases 6.0 and 6.0.1 do not support this	VSP 7200 Series	VOSS 5.1.2
	VSP 7400 Series	VOSS 8.0
feature.	VSP 8200 Series	VOSS 5.1.2
	VSP 8400 Series	VOSS 5.1.2
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

Table 54: Internet Protocol Flow Information eXport (IPFIX) product support

Feature	Product	Release introduced
For configuration details, see Monite	oring Performance for VOSS.	
Internet Protocol Flow Information	VSP 4450 Series	Not Supported
eXport (IPFIX)	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	Not Supported
	VSP 8400 Series	Not Supported
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 55: Inter-VSN Routing product support

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
Inter-VSN routing (IPv4)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50
Inter-VSN routing (IPv6)	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 56: IP Multicast over Fabric Connect product support

Feature	Product	Release introduced
For configuration details, see Config	guring Fabric Multicast Services for V	OSS.
IP Multicast over Fabric Connect	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported

Table 57: IP Route Policies product support

Feature	Product	Release introduced
For configuration details, see Configuring IPv4 Routing for VOSS.		
IP route policies	VSP 4450 Series	VSP 4000 4.0

Feature	Product	Release introduced
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

Table 58: IP Shortcuts product support

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Layer 3 Services for VOSS.		
IP Shortcut routing including ECMP	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50
IPv6 Shortcut routing	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
IPv4 IS-IS accept policies	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50

Feature	Product	Release introduced
IPv6 IS-IS accept policies	VSP 4450 Series	VOSS 8.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 8.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 8.0
	VSP 8400 Series	VOSS 8.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 59: IP Source Guard product support

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
IP Source Guard (IPv4)	VSP 4450 Series	VOSS 6.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50
IP Source Guard (IPv6)	VSP 4450 Series	VOSS 6.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 60: IP Source Routing product support

Feature	Product	Release introduced
For configuration details, see the following documents:		
Configuring IPv4 Routing for VOSS		
Configuring IPv6 Routing for VOSS		

Feature	Product	Release introduced
IP Source Routing enable or	VSP 4450 Series	VOSS 5.1
disable	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

Table 61: IPsec product support

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
IPsec NAT-T	VSP 4450 Series	Not Supported
	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	Not Supported
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.1.50
IPsec transport mode	VSP 4450 Series	VOSS 4.2
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
IPsec tunnel mode	VSP 4450 Series	Not Supported
	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	Not Supported
	VSP 8600 Series	Not Supported

Feature	Product	Release introduced
	XA1400 Series	VOSS 8.0.50
IPsec for the Out-of-band	VSP 4450 Series	VOSS 4.2
management port (IPv4)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Applicable
IPsec for the Out-of-band	VSP 4450 Series	VOSS 6.0
management port (IPv6)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Applicable

Table 62: IPv4 in IPv6 tunnels product support

Feature	Product	Release introduced
For configuration details, see Config	guring IPv6 Routing for VOSS.	
IPv4 in IPv6 tunnels	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported

Table 63: IPv6 Router Advertisement (RA) Guard product support

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
IPv6 Router Advertisement (RA)	VSP 4450 Series	VOSS 5.0
Guard	VSP 4900 Series	VOSS 8.1

Feature	Product	Release introduced
	VSP 7200 Series	VOSS 5.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.0
	VSP 8400 Series	VOSS 5.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 64: IPv6 virtualization product support

Feature	Product	Release introduced
IPv6 Virtualization for the following features and functions:	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
IPv6 Interfaces and IPv6 Static  Payton in VIPFe and Layer 2	VSP 7200 Series	VOSS 7.0
Routes in VRFs and Layer 3 VSNs	VSP 7400 Series	VOSS 8.0
ECMP and Alternative route	VSP 8200 Series	VOSS 7.0
Route redistribution for static	VSP 8400 Series	VOSS 7.0
and direct routes  • VRRPv3 for IPv6	VSP 8600 Series	Not Supported
<ul><li>DHCP Relay</li><li>IPv6 Reverse Path Forwarding</li><li>ICMP Ping and Traceroute</li></ul>	XA1400 Series	Not Supported
For configuration details, see Configuring IPv6 Routing for VOSS.		
IPv6 Virtualization for the following	VSP 4450 Series	VOSS 8.0
features and functions:	VSP 4900 Series	VOSS 8.1
Open Shortest Path First for  IPv6 (OSPEv3)	VSP 7200 Series	VOSS 8.0
<ul><li>IPv6 (OSPFv3)</li><li>IPv6 Border Gateway Protocol</li></ul>	VSP 7400 Series	VOSS 8.0
(IPv6 BGP)	VSP 8200 Series	VOSS 8.0
IPv6 route redistribution	VSP 8400 Series	VOSS 8.0
enhancements	VSP 8600 Series	Not Supported
For configuration details, see Configuring IPv6 Routing for VOSS.	XA1400 Series	Not Supported
iBGP over user-created VRFs	VSP 4450 Series	VOSS 8.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 8.1

Feature	Product	Release introduced
For configuration details, see Configuring BGP Services for VOSS.	VSP 7400 Series	VOSS 8.1
	VSP 8200 Series	VOSS 8.1
	VSP 8400 Series	VOSS 8.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 65: IQAgent product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring User Interfaces and Operating Systems for VOSS.		
IQAgent	VSP 4450 Series	Not supported	
	VSP 4900 Series	VOSS 8.1.1 - demonstration feature	
		VSP4900-48P only	
		VIMs: VIM5-4YE, VIM5-4X, VIM5-4XE, and VIM5-2Y only	
	VSP 7200 Series	Not supported	
	VSP 7400 Series	VOSS 8.1.1 - demonstration feature	
	VSP 8200 Series	Not supported	
	VSP 8400 Series	Not supported	
	VSP 8600 Series	Not supported	
	XA1400 Series	VOSS 8.1.1 - demonstration feature	

Table 66: IS-IS product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
IS-IS authentication with SHA-256	VSP 4450 Series	VOSS 7.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 7.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 7.0	
	VSP 8400 Series	VOSS 7.0	
	VSP 8600 Series	VSP 8600 6.1	
	XA1400 Series	Not Supported	

Feature	Product	Release introduced
Suspend duplicate system ID	VSP 4450 Series	VOSS 6.1
detection	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50
Multiple IS-IS parallel adjacencies	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

# **Chapter 5: VOSS Features J to L**

Table 67: Key Health Indicator product support

Feature	Product	Release introduced	
For configuration details, see Monito	For configuration details, see Monitoring Performance for VOSS.		
Key Health Indicator (KHI)	VSP 4450 Series	VSP 4000 4.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VSP 8200 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	

Table 68: Layer 2 Video Surveillance install script product support

Feature	Product	Release introduced
For configuration details, see Confi	guring Fabric Basics and Layer 2 Ser	vices for VOSS.
Layer 2 Video Surveillance install	VSP 4450 Series	VOSS 6.1
script	VSP 4900 Series	VOSS 8.1
		To support this feature, VIM installation is mandatory in VSP4900-48P.
	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	Not Supported
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 69: Layer 2 VSN product support

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
Equal Cost Trees (ECT)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Layer 2 Virtual Service Network	VSP 4450 Series	VSP 4000 4.0
(VSN)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Switched UNI	VSP 4450 Series	VOSS 5.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.0
	VSP 8400 Series	VOSS 5.0
	VSP 8600 Series	VSP 8600 6.3
	XA1400 Series	Not Supported
Transparent Port UNI (T-UNI)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.2.1
	VSP 8400 Series	VOSS 4.2.1
	VSP 8600 Series	VSP 8600 6.3
	XA1400 Series	Not Supported

Table 70: Layer 3 Video Surveillance install script product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring Fabric Layer 3 Services for VOSS.		
Layer 3 Video Surveillance install	VSP 4450 Series	VOSS 4.1	
script (formerly known as the run vms endura script)	VSP 4900 Series	VOSS 8.1	
vins endura script)		To support this feature, VIM installation is mandatory in VSP4900-48P.	
	VSP 7200 Series	Not Supported	
	VSP 7400 Series	Not Supported	
	VSP 8200 Series	Not Supported	
	VSP 8400 Series	Not Supported	
	VSP 8600 Series	Not Supported	
	XA1400 Series	Not Supported	

Table 71: Layer 3 VSN product support

Feature	Product	Release introduced
For configuration details, see Config	guring Fabric Layer 3 Services for VC	<u>088</u> .
Layer 3 VSN	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50

**Table 72: Licensing product support** 

Feature	Product	Release introduced
For configuration details, see Admir	istering VOSS.	
License files signed using Extreme Networks signature.	VSP 4450 Series	VOSS 6.1.2
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1.2
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1.2
	VSP 8400 Series	VOSS 6.1.2

Feature	Product	Release introduced
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50
Subscription-based licenses	VSP 4450 Series	Not Supported
	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	Not Supported
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

Table 73: Link Layer Discovery Protocol product support

Feature	Product	Release introduced	
For configuration details, see Admir	For configuration details, see Administering VOSS.		
Industry Standard Discovery Protocol (ISDP) (CDP compatible)	VSP 4450 Series	VOSS 6.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 6.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 6.0	
	VSP 8400 Series	VOSS 6.0	
	VSP 8600 Series	Not Supported	
	XA1400 Series	Not Supported	
Link Layer Discovery Protocol	VSP 4450 Series	VOSS 6.0	
(LLDP)	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 6.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 6.0	
	VSP 8400 Series	VOSS 6.0	
	VSP 8600 Series	VSP 8600 6.1	
	XA1400 Series	VOSS 8.0.50	
Link Layer Discovery Protocol-	VSP 4450 Series	VOSS 7.0	
Media Endpoint Discovery (LLDP-MED)	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 7.0	
	VSP 7400 Series	Not Supported	
	VSP 8200 Series	VOSS 7.0	

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

Table 74: Link-state tracking (LST) product support

Feature	Product	Release introduced
For configuration details, see Config	guring Link Aggregation, MLT, SMLT	and vIST for VOSS.
Link-state tracking (LST)	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 75: Linux kernel version product support

Feature	Product	Release introduced	
For configuration details, see Admir	For configuration details, see Administering VOSS.		
Linux kernel version	VSP 4450 Series	4.9 as of VOSS 7.0	
Important:	VSP 4900 Series	4.14 as of VOSS 8.1	
For VSP 4450 Series, VSP	VSP 7200 Series	4.9 as of VOSS 7.0	
7200 Series, VSP 8200, and	VSP 7400 Series	4.14 as of VOSS 8.0	
VSP 8400 Series, kernel version 4.9 has special	VSP 8200 Series	4.9 as of VOSS 7.0	
upgrade considerations the	VSP 8400 Series	4.9 as of VOSS 7.0	
first time you upgrade to a	VSP 8600 Series	3.12 as of VSP 8600 6.3	
release that supports it. You must first upgrade to a stepping-stone release, 6.1.x, before you upgrade to the release with the new kernel.	XA1400 Series	4.14 as of VOSS 8.1	

Table 76: Logs and traps product support

Feature	Product	Release introduced
For configuration details, see <u>Troubleshooting VOSS</u> .		
Logging to a file and syslog (IPv4)	VSP 4450 Series	VSP 4000 4.0

Feature	Product	Release introduced
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Logging to a file and syslog (IPv6)	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
Simple Mail Transfer Protocol	VSP 4450 Series	VOSS 6.0
(SMTP) for log notification	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50
System Logging compliance with	VSP 4450 Series	VOSS 6.1.2
RFC 5424 and RFC 3339	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1.2
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1.2
	VSP 8400 Series	VOSS 6.1.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50
TLS client for secure syslog	VSP 4450 Series	VOSS 5.1.2
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1.2
	VSP 7400 Series	VOSS 8.0
		Table continues

Fea	ature	Product	Release introduced
*	Note:	VSP 8200 Series	VOSS 5.1.2
	VOSS Releases 6.0 and 6.0.1 do not support this	VSP 8400 Series	VOSS 5.1.2
		VSP 8600 Series	Not Supported
	feature.	XA1400 Series	VOSS 8.0.50

# **Chapter 6: VOSS Features M to O**

Table 77: MACsec product support

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
MACsec 2AN mode	VSP 4450 Series	VSP 4000 4.0
Note:	VSP 4900 Series	Not Supported
VOSS 5.0 officially removed	VSP 7200 Series	VOSS 4.2.1
the replay protection		VSP 7254XTQ only
commands. Do not use replay protection in earlier	VSP 7400 Series	Not Supported
releases.	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
MACsec 4AN mode	VSP 4450 Series	VOSS 6.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
		VSP 7254XTQ only
	VSP 7400 Series	Not Supported
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported
MACsec encryption cipher suites	VSP 4450 Series	VOSS 8.1
		128 bits only
	VSP 4900 Series	VOSS 8.1
		VSP4900-48P supports 128-bit on all fixed ports
		VSP4900-24XE supports 128-bit and 256-bit on all fixed ports

Feature	Product	Release introduced
		VSP4900-12MXU-12XE supports 128-bit and 256-bit on the SFP+ ports
		VIM5-4XE and VIM5-4YE supports 128-bit and 256-bit cipher suite
	VSP 7200 Series	VOSS 8.1
		128 bits only
	VSP 7400 Series	Not Supported
	VSP 8200 Series	VOSS 8.1
		128 bits only
	VSP 8400 Series	VOSS 8.1
		128 bits only
	VSP 8600 Series	VSP 8600 6.2
		8624XS supports 128 bits only. 8606CQ supports 128 bits and 256 bits
	XA1400 Series	Not Supported
MACsec Key Agreement (MKA)	VSP 4450 Series	Not Supported
	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	VOSS 8.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 78: Mroute statistics product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring IP Multicast Routing Protocols	for VOSS.
Multicast route (mroute) statistics for IPv4 and IPv6	VSP 4450 Series	Not Supported
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1

Feature	Product	Release introduced
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

**Table 79: MSTP-Fabric Connect Multi Homing product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring Fabric Basics and Layer 2 Ser	vices for VOSS.
MSTP-Fabric Connect Multi	VSP 4450 Series	VOSS 7.0
Homing	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 80: Multicast Listener Discovery product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring IP Multicast Routing Protocols	for VOSS.
Multicast Listener Discovery	VSP 4450 Series	VOSS 5.1
(MLD)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 81: MultiLink Trunking product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring Link Aggregation, MLT, SMLT	and vIST for VOSS.
MultiLink Trunking (MLT) / Link	VSP 4450 Series	VSP 4000 4.0
Aggregation Group (LAG)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

**Table 82: Multiple CLI Users product support** 

Feature	Product	Release introduced
For configuration details, see Admir	nistering VOSS.	
Multiple CLI users per role	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

**Table 83: Network Load Balancing product support** 

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring VLANs, Spanning Tree, and NLB for VOSS.		
Network Load Balancing (NLB) -	VSP 4450 Series	Not Supported	
multicast operation	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 6.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 6.0	
	VSP 8400 Series	VOSS 6.0	
	VSP 8600 Series	Not Supported	
	XA1400 Series	Not Supported	
Network Load Balancing (NLB) -	VSP 4450 Series	Not Supported	
unicast operation	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	Not Supported	

**Table 84: Network Time Protocol product support** 

VSP 4900 Series   VOSS 8.1	Feature	Product	Release introduced
VSP 4900 Series   VOSS 8.1	For configuration details, see Adm	inistering VOSS	
VSP 7200 Series	NTPv3 client	VSP 4450 Series	VSP 4000 4.0
VSP 7400 Series		VSP 4900 Series	VOSS 8.1
VSP 8200 Series   VSP 8200 4.0		VSP 7200 Series	VOSS 4.2.1
VSP 8400 Series   VOSS 4.2		VSP 7400 Series	VOSS 8.0
VSP 8600 Series   VSP 8600 4.5		VSP 8200 Series	VSP 8200 4.0
XA1400 Series   VOSS 8.0.50		VSP 8400 Series	VOSS 4.2
NTPv3 with SHA authentication   VSP 4450 Series   VOSS 5.1     VSP 4900 Series   VOSS 8.1     VSP 7200 Series   VOSS 5.1     VSP 7400 Series   VOSS 8.0     VSP 8200 Series   VOSS 5.1     VSP 8400 Series   VOSS 5.1     VSP 8400 Series   VOSS 5.1     VSP 8600 Series   VOSS 5.1     VSP 8600 Series   VOSS 5.1     VSP 8600 Series   VOSS 8.0.50     NTPv4 client for IPv4   VSP 4450 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 7200 Series   VOSS 7.0     VSP 7400 Series   VOSS 7.0     VSP 8200 Series   VOSS 7.0     VSP 8400 Series   VOSS 7.0     VSP 8600 Series   Not Supported     XA1400 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 8400 Series   VOSS 7.0     VSP 8400 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 7200 Series   VOSS 7.0     VSP 7200 Series   VOSS 7.0     VSP 8200 Series   VOSS 7.0     VSP 8200 Series   VOSS 7.0     VSP 8400 Series   VOSS 7.0     VSP 8600 Series   VOSS 7.0		VSP 8600 Series	VSP 8600 4.5
VSP 4900 Series         VOSS 8.1           VSP 7200 Series         VOSS 5.1           VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 5.1           VSP 8400 Series         VSP 8600 4.5           VSP 8600 Series         VSP 8600 4.5           XA1400 Series         VOSS 8.0.50           NTPv4 client for IPv4         VSP 4450 Series         VOSS 7.0           VSP 4900 Series         VOSS 7.0           VSP 7200 Series         VOSS 7.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         VOSS 7.0           VSP 4900 Series         VOSS 7.0           VSP 4900 Series         VOSS 7.0           VSP 7200 Series         VOSS 7.0           VSP 7400 Series         VOSS 7.0           VSP 7400 Series         VOSS 7.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         VOSS 7.0           VSP 8600 Series         Not Supported		XA1400 Series	VOSS 8.0.50
VSP 7200 Series	NTPv3 with SHA authentication	VSP 4450 Series	VOSS 5.1
VSP 7400 Series   VOSS 8.0     VSP 8200 Series   VOSS 5.1     VSP 8400 Series   VOSS 5.1     VSP 8400 Series   VSP 8600 4.5     VSP 8600 Series   VSP 8600 4.5     XA1400 Series   VOSS 8.0.50     NTPv4 client for IPv4   VSP 4450 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 7200 Series   VOSS 7.0     VSP 7400 Series   VOSS 7.0     VSP 8200 Series   VOSS 7.0     VSP 8400 Series   VOSS 7.0     VSP 8600 Series   VOSS 7.0     VSP 8600 Series   Not Supported     XA1400 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 7200 Series   VOSS 7.0     VSP 7400 Series   VOSS 7.0     VSP 8200 Series   VOSS 7.0     VSP 8400 Series   VOSS 7		VSP 4900 Series	VOSS 8.1
VSP 8200 Series   VOSS 5.1     VSP 8400 Series   VOSS 5.1     VSP 8600 Series   VSP 8600 4.5     VSP 8600 Series   VSP 8600 4.5     XA1400 Series   VOSS 8.0.50     NTPv4 client for IPv4   VSP 4450 Series   VOSS 7.0     VSP 4900 Series   VOSS 8.1     VSP 7200 Series   VOSS 7.0     VSP 7400 Series   VOSS 7.0     VSP 8200 Series   VOSS 7.0     VSP 8400 Series   VOSS 7.0     VSP 8600 Series   VOSS 7.0     VSP 8600 Series   Not Supported     XA1400 Series   VOSS 7.0     VSP 4450 Series   VOSS 7.0     VSP 4900 Series   VOSS 7.0     VSP 7200 Series   VOSS 7.0     VSP 7200 Series   VOSS 7.0     VSP 7400 Series   VOSS 7.0     VSP 7400 Series   VOSS 7.0     VSP 8200 Series   VOSS 7.0     VSP 8400 Series   VOSS 7		VSP 7200 Series	VOSS 5.1
VSP 8400 Series   VOSS 5.1		VSP 7400 Series	VOSS 8.0
VSP 8600 Series   VSP 8600 4.5		VSP 8200 Series	VOSS 5.1
XA1400 Series   VOSS 8.0.50		VSP 8400 Series	VOSS 5.1
VSP 4450 Series   VOSS 7.0		VSP 8600 Series	VSP 8600 4.5
VSP 4900 Series		XA1400 Series	VOSS 8.0.50
VSP 7200 Series         VOSS 7.0           VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported           NTPv4 client for IPv6         VSP 4450 Series         VOSS 7.0           VSP 4900 Series         VOSS 8.1         VSP 7200 Series           VSP 7400 Series         VOSS 7.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported	NTPv4 client for IPv4	VSP 4450 Series	VOSS 7.0
VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported           NTPv4 client for IPv6         VSP 4450 Series         VOSS 7.0           VSP 4900 Series         VOSS 8.1           VSP 7200 Series         VOSS 7.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported		VSP 4900 Series	VOSS 8.1
VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported           NTPv4 client for IPv6         VSP 4450 Series         VOSS 7.0           VSP 4900 Series         VOSS 8.1           VSP 7200 Series         VOSS 7.0           VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported		VSP 7200 Series	VOSS 7.0
VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported           NTPv4 client for IPv6         VSP 4450 Series         VOSS 7.0           VSP 4900 Series         VOSS 8.1           VSP 7200 Series         VOSS 7.0           VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported		VSP 7400 Series	VOSS 8.0
VSP 8600 Series         Not Supported           XA1400 Series         Not Supported           NTPv4 client for IPv6         VSP 4450 Series         VOSS 7.0           VSP 4900 Series         VOSS 8.1           VSP 7200 Series         VOSS 7.0           VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported		VSP 8200 Series	VOSS 7.0
XA1400 Series   Not Supported		VSP 8400 Series	VOSS 7.0
NTPv4 client for IPv6  VSP 4450 Series  VOSS 7.0  VSP 4900 Series  VOSS 8.1  VSP 7200 Series  VOSS 7.0  VSP 7400 Series  VOSS 8.0  VSP 8200 Series  VOSS 7.0  VSP 8400 Series  VOSS 7.0  VSP 8400 Series  VOSS 7.0  VSP 8600 Series  Not Supported  XA1400 Series  Not Supported		VSP 8600 Series	Not Supported
VSP 4900 Series         VOSS 8.1           VSP 7200 Series         VOSS 7.0           VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported		XA1400 Series	Not Supported
VSP 7200 Series         VOSS 7.0           VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported	NTPv4 client for IPv6	VSP 4450 Series	VOSS 7.0
VSP 7400 Series         VOSS 8.0           VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported		VSP 4900 Series	VOSS 8.1
VSP 8200 Series         VOSS 7.0           VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported		VSP 7200 Series	VOSS 7.0
VSP 8400 Series         VOSS 7.0           VSP 8600 Series         Not Supported           XA1400 Series         Not Supported		VSP 7400 Series	VOSS 8.0
VSP 8600 Series Not Supported  XA1400 Series Not Supported		VSP 8200 Series	VOSS 7.0
XA1400 Series Not Supported		VSP 8400 Series	VOSS 7.0
		VSP 8600 Series	Not Supported
NTPv4 master and restrict VSP 4450 Series VOSS 8.0		XA1400 Series	Not Supported
	NTPv4 master and restrict	VSP 4450 Series	VOSS 8.0

Feature	Product	Release introduced
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 8.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 8.0
	VSP 8400 Series	VOSS 8.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 85: nni-mstp boot flag product support

Feature	Product	Release introduced
For configuration details, see Admir	nistering VOSS.	
nni-mstp boot flag (boot config	VSP 4450 Series	VOSS 6.0
flags nni-mstp)	VSP 4900 Series	VOSS 8.1
Important:	VSP 7200 Series	VOSS 6.0
This flag has special upgrade	VSP 7400 Series	VOSS 8.0
considerations the first time	VSP 8200 Series	VOSS 6.0
you upgrade to a release that supports it.	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 86: OSPF product support

Feature	Product	Release introduced
For configuration details, see Config	guring OSPF and RIP for VOSS.	
Open Shortest Path First (OSPF)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Secure hash algorithm 1 (SHA-1) and SHA-2	VSP 4450 Series	VOSS 4.2
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0

Feature	Product	Release introduced
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

Table 87: OSPFv3 product support

Feature	Product	Release introduced
For configuration details, see Config	guring OSPF and RIP for VOSS.	
OSPFv3	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported

# **Chapter 7: VOSS Features P to R**

Table 88: PIM over IPv6 product support

Feature	Product	Release introduced
For configuration details, see Config	guring IP Multicast Routing Protocols	for VOSS.
PIM over IPv6	VSP 4450 Series	VOSS 5.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 89: Port Mirroring product support** 

Feature	Product	Release introduced
For configuration details, see Troub	eleshooting VOSS.	
Ingress mirroring (port and flow-	VSP 4450 Series	VSP 4000 4.0
based)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Egress mirroring (port-based)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

**Table 90: Power Manager product support** 

Feature	Product	Release introduced
For configuration details, see Admir	nistering VOSS.	
Power Management	VSP 4450 Series	Not Supported
	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

**Table 91: Power over Ethernet product support** 

Feature	Product	Release introduced
For configuration details, see Administering VOSS.		
Power over Ethernet (PoE)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
		VSP4900-48P and first 12 ports of VSP4900-12MXU-12XE only
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	Not Applicable
	VSP 8200 Series	Not Applicable
	VSP 8400 Series	Not Applicable
	VSP 8600 Series	Not Applicable
	XA1400 Series	Not Supported
PoE/PoE+ allocation using LLDP	VSP 4450 Series	VOSS 5.1
	VSP 4900 Series	VOSS 8.1
		VSP4900-48P and first 12 ports of VSP4900-12MXU-12XE only
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	Not Applicable
	VSP 8200 Series	Not Applicable

Feature	Product	Release introduced
	VSP 8400 Series	Not Applicable
	VSP 8600 Series	Not Applicable
	XA1400 Series	Not Supported
Fast PoE	VSP 4450 Series	Not Applicable
	VSP 4900 Series	VOSS 8.1
		VSP4900-48P and first 12 ports of VSP4900-12MXU-12XE only
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	Not Applicable
	VSP 8200 Series	Not Applicable
	VSP 8400 Series	Not Applicable
	VSP 8600 Series	Not Applicable
	XA1400 Series	Not Supported
Perpetual PoE	VSP 4450 Series	Not Applicable
	VSP 4900 Series	VOSS 8.1
		VSP4900-48P and first 12 ports of VSP4900-12MXU-12XE only
	VSP 7200 Series	Not Applicable
	VSP 7400 Series	Not Applicable
	VSP 8200 Series	Not Applicable
	VSP 8400 Series	Not Applicable
	VSP 8600 Series	Not Applicable
	XA1400 Series	Not Supported

**Table 92: Protocol Independent Multicast-Source Specific Mode product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring IP Multicast Routing Protocols	for VOSS.
PIM-Source Specific Mode (PIM-	VSP 4450 Series	VOSS 4.1
SSM) for IPv4	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.0.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

**Table 93: Protocol Independent Multicast - Sparse Mode product support** 

Feature	Product	Release introduced	
For configuration details, see Configuration	For configuration details, see Configuring IP Multicast Routing Protocols for VOSS.		
Protocol Independent Multicast-	VSP 4450 Series	VOSS 4.1	
Sparse Mode (PIM-SM) for IPv4	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 4.0.1	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	Not Supported	

Table 94: QoS and VoIP product support

Feature	Product	Release introduced
For configuration details, see Configuring QoS and ACL-Based Traffic Filtering for VOSS.		
Platform specific considerations for QoS behavior are documented in QoS Behavior Differences, which is in Configuring QoS and ACL-Based Traffic Filtering for VOSS.		
Automatic QoS	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

**Table 95: Queue Profiles product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring QoS and ACL-Based Traffic Fi	Itering for VOSS.
QoS per queue rate limiting	VSP 4450 Series	VOSS 5.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1.1
	VSP 8400 Series	VOSS 5.1.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 96: RADIUS product support

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
RADIUS (IPv6)	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
RADIUS attributes:	VSP 4450 Series	VOSS 7.0
Acct-Terminate-Cause	VSP 4900 Series	VOSS 8.1
Event-Timestamp	VSP 7200 Series	VOSS 7.0
Service Type	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50
RADIUS, community-based users	VSP 4450 Series	VSP 4000 4.0
(IPv4)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
RADIUS secure communication	VSP 4450 Series	VOSS 5.1.2
using IPSec for IPv4	VSP 4900 Series	VOSS 8.1
Note:	VSP 7200 Series	VOSS 5.1.2
VOSS Releases 6.0 and	VSP 7400 Series	VOSS 8.0
6.0.1 do not support this	VSP 8200 Series	VOSS 5.1.2
feature.	VSP 8400 Series	VOSS 5.1.2
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

Feature	Product	Release introduced
RADIUS secure communication	VSP 4450 Series	VOSS 5.1.2
using IPSec for IPv6	VSP 4900 Series	VOSS 8.1
Note:	VSP 7200 Series	VOSS 5.1.2
VOSS Releases 6.0 and	VSP 7400 Series	VOSS 8.0
6.0.1 do not support this feature.	VSP 8200 Series	VOSS 5.1.2
leature.	VSP 8400 Series	VOSS 5.1.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
RFC 5176 – Dynamic	VSP 4450 Series	VOSS 7.0
Authorization Extensions to RADIUS	VSP 4900 Series	VOSS 8.1
TADIOS	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not supported
	XA1400 Series	VOSS 8.0.50
RFC 5997 – RADIUS Reachability	VSP 4450 Series	VOSS 7.0
Server Status	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not supported
	XA1400 Series	VOSS 8.0.50

Table 97: Rate Limiting, Policing, and Shaping product support

Feature	Product	Release introduced
For configuration details, see Config	guring QoS and ACL-Based Traffic Fil	Itering for VOSS.
Platform specific considerations for QoS behavior are documented in QoS Behavior Differences, which is in Configuring QoS and ACL-Based Traffic Filtering for VOSS.		
Egress port shaper	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
Ingress dual rate port policers	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	Not Supported
	VSP 7200 Series	Not Supported
	VSP 7400 Series	Not Supported
	VSP 8200 Series	Not Supported
	VSP 8400 Series	Not Supported
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported
QoS ingress port rate limiter	VSP 4450 Series	Not Supported
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	Not Supported
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.1.50

**Table 98: Remote Monitoring product support** 

Feature	Product	Release introduced
For configuration details, see Monito	oring Performance for VOSS.	
Remote Monitoring 1 (RMON1) for	VSP 4450 Series	VSP 4000 4.0
Layer 1 and Layer 2	VSP 4900 Series	VOSS 8.1
Note:	VSP 7200 Series	VOSS 4.2.1
VOSS Release 5.0 and 5.1	VSP 7400 Series	VOSS 8.0
do not support RMON1.	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported
Remote Monitoring 2 (RMON2) for network and application layer protocols	VSP 4450 Series	VOSS 4.2
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0

Feature	Product	Release introduced
	VSP 8200 Series	VOSS 4.2
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 99: Representational State Transfer Configuration Protocol (RESTCONF) product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring User Interfaces and Operating Systems for VOSS.		
Representational State Transfer	VSP 4450 Series	VOSS 8.0	
Configuration Protocol (RESTCONF)	VSP 4900 Series	VOSS 8.1	
(RESTCONF)	VSP 7200 Series	VOSS 8.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 8.0	
	VSP 8400 Series	VOSS 8.0	
	VSP 8600 Series	Not Supported	
	XA1400 Series	Not Supported	

Table 100: RIPng product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring IPv6 Routing for VOSS.		
RIPng	VSP 4450 Series	VOSS 5.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 5.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 5.0	
	VSP 8400 Series	VOSS 5.0	
	VSP 8600 Series	VSP 8600 6.2	
	XA1400 Series	Not Supported	

**Table 101: Routing Information Protocol product support** 

Feature	Product	Release introduced
For configuration details, see Configuring OSPF and RIP for VOSS.		
Routing Information Protocol (RIP)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1

Feature	Product	Release introduced
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

Table 102: RSMLT for IPv4 product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring IPv4 Routing for VOSS.		
IPv4 RSMLT	VSP 4450 Series	VOSS 4.1	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VSP 8200 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	Not Supported	

Table 103: RSMLT for IPv6 product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring IPv6 Routing for VOSS.		
IPv6 RSMLT	VSP 4450 Series	VOSS 4.1	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 4.1	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 6.2	
	XA1400 Series	Not Supported	

Table 104: run spbm installation script product support

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
run spbm installation script	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1

Feature	Product	Release introduced
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

# **Chapter 8: VOSS Features S to U**

Table 105: Secure Shell product support

Feature	Product	Release introduced	
For configuration details, see Administering VOSS.			
Secure Shell (SSH) server (IPv4)	VSP 4450 Series	VSP 4000 4.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VSP 8200 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	
Secure Shell (SSH) client (IPv4)	VSP 4450 Series	VSP 4000 4.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VSP 8200 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	
Secure Sockets Layer (SSL)	VSP 4450 Series	VOSS 4.1	
certificate management	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 4.1	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	Not Supported	
SSH server (IPv6)	VSP 4450 Series	VOSS 4.1	

Feature	Product	Release introduced
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported
SSH client (IPv6)	VSP 4450 Series	VOSS 7.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
SSH client disable	VSP 4450 Series	VOSS 6.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
SSH key sizes in multiples of 1024	VSP 4450 Series	VOSS 5.1.2
* Note:	VSP 4900 Series	VOSS 8.1
VOSS Releases 6.0 and	VSP 7200 Series	VOSS 5.1.2
6.0.1 do not support this	VSP 7400 Series	VOSS 8.0
change.	VSP 8200 Series	VOSS 5.1.2
	VSP 8400 Series	VOSS 5.1.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	Not Supported
SSH rekey	VSP 4450 Series	VOSS 5.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0

Feature	Product	Release introduced
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.1

**Table 106: Segmented Management Instance product support** 

Feature	Product	Release introduced	
For configuration details, see Administering VOSS.			
Segmented Management Instance	VSP 4450 Series	VOSS 7.0	
- Management Interface CLIP	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 7.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 7.0	
	VSP 8400 Series	VOSS 7.0	
	VSP 8600 Series	Not Supported	
	XA1400 Series	VOSS 8.1.1 - IPv4 only	
		Note:	
		VOSS 8.1.50 does not support this feature.	
Segmented Management Instance	VSP 4450 Series	VOSS 7.0	
- Management Interface VLAN	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 7.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8400 Series	VOSS 7.0	
	VSP 8600 Series	Not Supported	
	XA1400 Series	VOSS 8.1.1 - IPv4 only	
		Note:	
		VOSS 8.1.50 does not support this feature.	
Segmented Management Instance	VSP 4450 Series	Not Supported	
ability to migrate VLAN or loopback IP address	VSP 4900 Series	Not Supported	
	VSP 7200 Series	Not Supported	
	VSP 7400 Series	Not Supported	
	VSP 8200 Series	Not Supported	
	VSP 8400 Series	Not Supported	

Feature	Product	Release introduced
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 107: sFlow product support

Feature	Product	Release introduced	
For configuration details, see Moni	For configuration details, see Monitoring Performance for VOSS.		
sFlow	VSP 4450 Series	VOSS 6.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 6.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 6.0	
	VSP 8400 Series	VOSS 6.0	
	VSP 8600 Series	VSP 8600 6.2	
	XA1400 Series	Not Supported	
sFlow collector reachability on	VSP 4450 Series	Not Supported	
user-created VRFs	VSP 4900 Series	Not Supported	
	VSP 7200 Series	Not Supported	
	VSP 7400 Series	Not Supported	
	VSP 8200 Series	Not Supported	
	VSP 8400 Series	Not Supported	
	VSP 8600 Series	VSP 8600 6.2	
	XA1400 Series	Not Supported	

**Table 108: Simple Loop Prevention Protocol product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring VLANs, Spanning Tree, and N	LB for VOSS.
Simple Loop Prevention Protocol	VSP 4450 Series	VSP 4000 4.0
(SLPP)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
		Not Supported on Flex-UNI

**Table 109: Simple Network Management Protocol product support** 

Feature	Product	Release introduced
For configuration details, see Configuring Security for VOSS.		
Simple Network Management	VSP 4450 Series	VSP 4000 4.0
Protocol (SNMP) v1/2/3 (IPv4)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
SNMP (IPv6)	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported

**Table 110: SLA Mon product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring the SLA Mon Agent for VOSS.	
SLA Mon	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

Table 111: SLPP Guard product support

Feature	Product	Release introduced
For configuration details, see Configuring Link Aggregation, MLT, SMLT and vIST for VOSS.		
SLPP Guard	VSP 4450 Series	VOSS 6.1

Feature	Product	Release introduced
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.1
	VSP 8400 Series	VOSS 6.1
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	VOSS 8.0.50
		Not Supported on Flex-UNI

**Table 112: SONMP product support** 

Feature	Product	Release introduced
For configuration details, see Admir	nistering VOSS.	
SONMP	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

**Table 113: Spanning Tree Protocol product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring VLANs, Spanning Tree, and N	LB for VOSS.
Spanning Tree Protocol (STP):	VSP 4450 Series	VSP 4000 4.0
Multiple STP (MSTP)	VSP 4900 Series	VOSS 8.1
Rapid STP (RSTP)	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

Table 114: spbm-config-mode product support

Feature	Product	Release introduced
For configuration details, see Config	guring Fabric Basics and Layer 2 Ser	vices for VOSS.
spbm-config-mode (boot	VSP 4450 Series	VOSS 4.1
config flags spbm-config-	VSP 4900 Series	VOSS 8.1
mode)	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

**Table 115: SPB-PIM Gateway product support** 

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Multicast Services for VOSS.		
SPB-PIM Gateway controller node	VSP 4450 Series	VOSS 6.0
	VSP 4900 Series	VOSS 8.1.5
		VSP4900-12MXU-12XE, VSP4900-24S, and VSP4900-24XE only
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
SPB-PIM Gateway interface	VSP 4450 Series	VOSS 6.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 116: Static routing product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring IPv4 Routing for VOSS.	
Static routing	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50

Table 117: TACACS+ product support

Feature	Product	Release introduced	
For configuration details, see Configuration	For configuration details, see Configuring Security for VOSS.		
TACACS+	VSP 4450 Series	VSP 4000 4.0	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 4.1	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	
TACACS+ secure communication	VSP 4450 Series	VOSS 5.1.2	
using IPSec for IPv4	VSP 4900 Series	VOSS 8.1	
Note:	VSP 7200 Series	VOSS 5.1.2	
VOSS Releases 6.0 and	VSP 7400 Series	VOSS 8.0	
6.0.1 do not support this feature.	VSP 8200 Series	VOSS 5.1.2	
	VSP 8400 Series	VOSS 5.1.2	
	VSP 8600 Series	Not Supported	
	XA1400 Series	VOSS 8.0.50	

Table 118: TLS server for secure HTTPS product support

Feature	Product	Release introduced
For configuration details, see Configuring User Interfaces and Operating Systems for VOSS.		
TLS server for secure HTTPS	VSP 4450 Series	VOSS 5.1.2

Fea	iture	Product	Release introduced
*	Note:	VSP 4900 Series	VOSS 8.1
	VOSS Releases 6.0 and	VSP 7200 Series	VOSS 5.1.2
	6.0.1 do not support this feature.	VSP 7400 Series	VOSS 8.0
		VSP 8200 Series	VOSS 5.1.2
		VSP 8400 Series	VOSS 5.1.2
		VSP 8600 Series	VSP 8600 6.1
		XA1400 Series	VOSS 8.0.50

**Table 119: Two-Factor Authentication for SSH product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring Security for VOSS.	
Two-Factor Authentication for SSH	VSP 4450 Series	VOSS 8.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 8.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 8.0
	VSP 8400 Series	VOSS 8.0
	VSP 8600 Series	Not Supported
	XA1400 Series	VOSS 8.0.50

**Table 120: Unicast Reverse Path Forwarding product support** 

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring Security for VOSS.		
Unicast Reverse Path Forwarding	VSP 4450 Series	VOSS 5.0	
(URPF) checking (IPv4)	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 5.0	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VOSS 5.0	
	VSP 8400 Series	VOSS 5.0	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	Not Supported	
Unicast Reverse Path Forwarding	VSP 4450 Series	VOSS 5.0	
(URPF) checking (IPv4)	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 5.0	
	VSP 7400 Series	VOSS 8.0	

Feature	Product	Release introduced
	VSP 8200 Series	VOSS 5.0
	VSP 8400 Series	VOSS 5.0
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	Not Supported

## **Chapter 9: VOSS Features V to X**

**Table 121: Virtual Inter-Switch Trunk product support** 

Feature	Product	Release introduced
For configuration details, see Config	guring Link Aggregation, MLT, SMLT	and vIST for VOSS.
Switch cluster (multi-chassis LAG)	VSP 4450 Series	VOSS 4.1
-Virtual Inter-Switch Trunk (vIST)	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	Not Supported

Table 122: Virtual Link Aggregation Control Protocol (VLACP) product support

Feature	Product	Release introduced	
For configuration details, see Config	For configuration details, see Configuring Link Aggregation, MLT, SMLT and vIST for VOSS.		
Virtual Link Aggregation Control	VSP 4450 Series	VSP 4000 4.0	
Protocol (VLACP)	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 4.2.1	
	VSP 7400 Series	VOSS 8.0	
	VSP 8200 Series	VSP 8200 4.0	
	VSP 8400 Series	VOSS 4.2	
	VSP 8600 Series	VSP 8600 4.5	
	XA1400 Series	VOSS 8.0.50	
VLACP Flap Detect and Damping	VSP 4450 Series	VOSS 7.1.5	
	VSP 4900 Series	VOSS 8.1	
	VSP 7200 Series	VOSS 8.1	
	VSP 7400 Series	VOSS 8.1	
	VSP 8200 Series	VOSS 8.1	

Feature	Product	Release introduced
	VSP 8400 Series	VOSS 8.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

**Table 123: Virtual Router Redundancy Protocol product support** 

Feature	Product	Release introduced
For configuration details, see Configuring IPv4 Routing for VOSS.		
Virtual Router Redundancy Protocol (VRRP)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VSP 8200 4.0
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 4.5
	XA1400 Series	VOSS 8.0.50
VRRPv3 for IPv4	VSP 4450 Series	VOSS 5.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	VSP 8600 6.1
	XA1400 Series	VOSS 8.0.50

Table 124: Virtual Router Redundancy Protocol for IPv6 product support

Feature	Product	Release introduced
For configuration details, see Configuring IPv6 Routing for VOSS.		
IPv6 VRRP	VSP 4450 Series	VOSS 4.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 4.1
	VSP 8400 Series	VOSS 4.2
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported

Feature	Product	Release introduced
VRRPv3 for IPv6	VSP 4450 Series	VOSS 5.1
	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 5.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 5.1
	VSP 8400 Series	VOSS 5.1
	VSP 8600 Series	VSP 8600 6.2
	XA1400 Series	Not Supported

**Table 125: Virtual Routing and Forwarding product support** 

Feature	Product	Release introduced
Virtualization with IPv4 Virtual Routing and Forwarding (VRF)	VSP 4450 Series	VSP 4000 4.0
	VSP 4900 Series	VOSS 8.1
<ul><li>ARP</li><li>DHCP Relay</li><li>Inter-VRF Routing (static,</li></ul>	VSP 7200 Series	VOSS 4.2.1
	VSP 7400 Series	VOSS 8.0
dynamic, and policy)	VSP 8200 Series	VSP 8200 4.0
Local routing	VSP 8400 Series	VOSS 4.2
• OSPFv2	VSP 8600 Series	VSP 8600 4.5
<ul><li>RIPv1 and v2</li><li>Route policies</li><li>Static routing</li><li>VRRP</li></ul>	XA1400 Series	VOSS 8.0.50
For configuration details, see Configuring IPv4 Routing for VOSS.		
Increased VRF and Layer 3 VSN	VSP 4450 Series	VOSS 6.0
scaling	VSP 4900 Series	VOSS 8.1
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
IBGP over user-created VRFs	VSP 4450 Series	VOSS 8.1
	VSP 4900 Series	VOSS 8.1

Feature	Product	Release introduced
For configuration details, see Configuring BGP Services for VOSS.	VSP 7200 Series	VOSS 8.1
	VSP 7400 Series	VOSS 8.1
	VSP 8200 Series	VOSS 8.1
	VSP 8400 Series	VOSS 8.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

Table 126: VXLAN Gateway product support

Feature	Product	Release introduced
For configuration details, see Configuring VXLAN Gateway for VOSS.		
VXLAN Gateway	VSP 4450 Series	Not Supported
	VSP 4900 Series	Not Supported
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
OVSDB protocol support for	VSP 4450 Series	Not Supported
VXLAN Gateway	VSP 4900 Series	Not Supported
	VSP 7200 Series	VOSS 7.1
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 7.1
	VSP 8400 Series	VOSS 7.1
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported
ECMP support for VXLAN	VSP 4450 Series	Not Supported
Gateway	VSP 4900 Series	Not Supported
	VSP 7200 Series	VOSS 6.0
	VSP 7400 Series	VOSS 8.0
	VSP 8200 Series	VOSS 6.0
	VSP 8400 Series	VOSS 6.0
	VSP 8600 Series	Not Supported
	XA1400 Series	Not Supported

## **Chapter 10: VOSS Features Y and Z**

**Table 127: Zero Touch Fabric Configuration product support** 

Feature	Product	Release introduced
For configuration details, see Configuring Fabric Basics and Layer 2 Services for VOSS.		
Zero Touch Fabric Configuration	VSP 4450 Series	VOSS 7.0
Note:	VSP 4900 Series	VOSS 8.1
The following releases included modified Zero Touch Fabric Configuration support that can impact upgrades from earlier releases:	VSP 7200 Series	VOSS 7.0
	VSP 7400 Series	VOSS 8.0.5
	VSP 8200 Series	VOSS 7.0
	VSP 8400 Series	VOSS 7.0
VOSS 7.1.3 and later	VSP 8600 Series	Not Supported
VOSS 8.0.6 and later	XA1400 Series	Not Supported
<ul> <li>VOSS 8.1 and later</li> </ul>		
For upgrade considerations, see <u>Administering VOSS</u> .		