



# Fabric Engine Feature Support Matrix

For Fabric Engine Release 8.6

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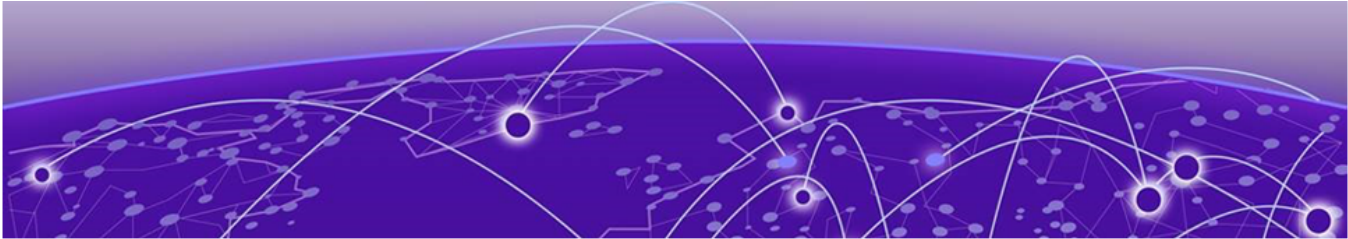
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# About this Document

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[Purpose](#) on page 4

[Documentation and Training](#) on page 5

[Help and Support](#) on page 5

[Send Feedback](#) on page 6

The topics in this section discuss the purpose of this document, the conventions used, ways to provide feedback, additional help, and information regarding other Extreme Networks publications.

## Purpose

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This document provides information on features in Extreme Networks Fabric Engine™. Fabric Engine runs on the following product families:

- ExtremeSwitching 5320 Series
- ExtremeSwitching 5420 Series
- ExtremeSwitching 5520 Series

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

Prior to Fabric Engine 8.6, 5520 Series and 5420 Series platforms ran VOSS. VOSS support ends for these platforms with VOSS 8.5.x. Unless otherwise noted, feature support introduced in earlier VOSS releases is also available in Fabric Engine releases.

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 [Fabric Engine Release Notes](#).

This document arranges the features alphabetically, based on how those features are included in the [Fabric Engine User Guide](#). For example, [Table 19](#) on page 16 includes both Directed Broadcast and High Secure Mode.

The tables in this document also appear in the conceptual feature content of the [Fabric Engine User Guide](#).

This document distinguishes between hardware that is not capable of supporting a feature (Not Applicable) and hardware that is capable of supporting a feature but does not (Not Supported).

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## Documentation and Training

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Find Extreme Networks product information at the following locations:

[Current Product Documentation](#)

[Release Notes](#)

[Hardware and software compatibility](#) for Extreme Networks products

[Extreme Optics Compatibility](#)

[Other resources](#) such as 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 [www.extremenetworks.com/education/](http://www.extremenetworks.com/education/).

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## Help and Support

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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](http://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 Product Announcements

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

1. Go to [The Hub](#).
2. In the list of categories, expand the **Product Announcements** list.

3. Select a product for which you would like to receive notifications.
4. Select **Subscribe**.
5. To select additional products, return to the **Product Announcements** list and repeat steps 3 and 4.

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

## Send Feedback

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The Information Development team at Extreme Networks has made every effort to ensure that this document is accurate, complete, and easy to use. We strive to improve our documentation to help you in your work, 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.
- Broken links or usability issues.

To send feedback, do either of the following:

- Access the feedback form at <https://www.extremenetworks.com/documentation-feedback/>.
- Email us at [documentation@extremenetworks.com](mailto: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.



# Fabric Engine Features A to C

**Table 1: Access Control Entry product support**

Feature	Product	Release introduced
Platform specific considerations for ACL and ACE behavior are documented in ACL Filters Behavior Differences, which is in <a href="#">Fabric Engine User Guide</a> .		
QoS Access Control Entries (ACE)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Security ACEs	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Filter enhancement - Apply ACE to Routed Packets only	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.4
Policy Based Routing (redirect-next-hop)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Policy Based Routing (redirect-next-hop) with VRF support	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

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

Feature	Product	Release introduced
Platform specific considerations for ACL and ACE behavior are documented in ACL Filters Behavior Differences, which is in <a href="#">Fabric Engine User Guide</a> .		
Access Control List (ACL)-based filtering, including egress ACLs, ingress ACLs, Layer 2 to Layer 4 filtering, port-based, and VLAN-based	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 2: Access Control List product support (continued)**

Feature	Product	Release introduced
InVSN Filter	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
IPv6 ingress filters	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
IPv6 egress filters	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
IPv6 ACL DSCP Remarking	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5

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

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Address Resolution Protocol (ARP) including Proxy ARP and Static ARP	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Gratuitous ARP filtering	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

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

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Advanced Feature Bandwidth Reservation  <b>Note:</b> If your switch does not have this boot flag, it is because the hardware reserves the	5320 Series	Fabric Engine 8.6 5320-24P-8XE, 5320-24T-8XE, 5320-48P-8XE, and 5320-48T-8XE only
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5



**Table 4: Advanced Feature Bandwidth Reservation product support (continued)**

Feature	Product	Release introduced
bandwidth automatically with no user interaction.		

**Table 5: Alternative routes product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Alternative routes for IPv4	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Alternative routes for IPv6	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 6: Application Telemetry product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Application Telemetry	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Application Telemetry Host Monitoring	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 7: Authentication for Privileged EXEC Mode product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Authentication for Privileged EXEC CLI Command Mode	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.4

**Table 8: Auto-Negotiation product support**

Feature	Product	Release introduced
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**Table 8: Auto-Negotiation product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Auto-Negotiation	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4  <b>Note:</b> SFP-DD ports are only available if you disable Advanced Feature Bandwidth Reservation.
	5520 Series	VOSS 8.2.5 Only on the following switch models: 5520-24T 5520-24W 5520-48T 5520-48W 5520-12MW-36W 5520-48SE QSFP28/QSFP+ ports, and all fixed fiber ports, at 1 Gbps only  <b>Note:</b> QSFP28 ports are only available if you disable Advanced Feature Bandwidth Reservation.  5520-VIM-4XE at 1 Gbps only and 5520-VIM-4YE at 25 Gbps only

**Table 9: Auto-sense product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Auto-sense	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3
Auto-sense ports can apply Fabric Attach (FA)-specific configuration	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4.2
	5520 Series	VOSS 8.4.2

**Table 10: Bidirectional Forwarding Detection (BFD) product support**

Feature	Product	Release introduced
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**Table 10: Bidirectional Forwarding Detection (BFD) product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
BFD (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
BFD (IPv6)	5320 Series	Fabric Engine 8.6 demonstration feature
	5420 Series	VOSS 8.4 demonstration feature
	5520 Series	VOSS 8.2.5 demonstration feature
BFD over Fabric Extend Tunnels (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 11: Border Gateway Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Border Gateway Protocol for IPv4 (BGPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
BGP+ (BGPv4 for IPv6).	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
BGPv6	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
External BGP (eBGP)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Internal BPG (iBGP)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Route metric for BGP route redistribution	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 11: Border Gateway Protocol product support (continued)**

Feature	Product	Release introduced
iBGP over user-created VRFs	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 12: Bridge Protocol Data Unit (BPDU) Guard product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Bridge Protocol Data Unit (BPDU) Guard	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 13: Certificate order priority product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Certificate order priority	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 14: Channelization product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Channelization of 40 Gbps ports	5320 Series	Not Applicable
	5420 Series	Not Applicable
	5520 Series	VOSS 8.2.5
Channelization of 100 Gbps ports	5320 Series	Not Applicable
	5420 Series	Not Applicable
	5520 Series	Not Applicable

**Table 15: Client and Server product support**

Feature	Product	Release introduced
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**Table 15: Client and Server product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
File Transfer Protocol (FTP) server and client (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
File Transfer Protocol (FTP) server and client (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Hypertext Transfer Protocol (HTTP) and Hypertext Transfer Protocol Secure (HTTPS) (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Hypertext Transfer Protocol (HTTP) and Hypertext Transfer Protocol Secure (HTTPS) (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Remote Login (Rlogin) server/client (IPv4)	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Rlogin server (IPv6)	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Rlogin client (IPv6)	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Remote Shell (RSH) server/client	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Secure Copy (SCP) <b>Note:</b> The switch does not support the WinSCP client.	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Secure File Transfer Protocol (SFTP) server (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 15: Client and Server product support (continued)**

Feature	Product	Release introduced
Secure File Transfer Protocol (SFTP) server (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Telnet server and client (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Telnet server and client (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Trivial File Transfer Protocol (TFTP) server and client (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
TFTP server (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
TFTP client (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 16: Command Line Interface product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Command Line Interface (CLI)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 17: Connectivity Fault Management product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IEEE 802.1ag Connectivity Fault Management (CFM): <ul style="list-style-type: none"> <li>• Layer 2 Ping</li> <li>• TraceRoute</li> <li>• TraceTree</li> </ul>	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 17: Connectivity Fault Management product support (continued)**

Feature	Product	Release introduced
CFM configuration on C-VLANs	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 18: Custom Logon Banner product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Custom logon banner	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5



## Fabric Engine Features D to F

**Table 19: Denial-of-service attack prevention product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Directed Broadcast	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
High Secure mode (hsecure boot configuration flag)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 20: DHCPv6 Guard product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
DHCPv6 Guard	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 21: Differentiated Services product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Differentiated Services (DiffServ) including Per-Hop Behavior	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 22: Digital Certificate/PKI product support**

Feature	Product	Release introduced
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**Table 22: Digital Certificate/PKI product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Digital Certificate/PKI	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Subject alternative name	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Certificate fingerprint validation	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3
Multiple CA Trustpoints and multiple Certificate Identities	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.3.100

**Table 23: Distributed Virtual Routing Controller product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
DvR Controller	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.2.5
dvr-one-ip	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.3
DvR In-band Management	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.2.5

**Table 24: Distributed Virtual Routing Leaf product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
DvR Leaf	5320 Series	Fabric Engine 8.6

**Table 24: Distributed Virtual Routing Leaf product support (continued)**

Feature	Product	Release introduced
		5320-48P-8XE and 5320-48T-8XE only
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
DvR In-band Management	5320 Series	Not Supported
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Management I-SID Assignment to DvR Leaf	5320 Series	Fabric Engine 8.6 5320-48P-8XE and 5320-48T-8XE only
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5

**Table 25: Domain Name Service product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Domain Name Service (DNS) client (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
DNS client (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 26: Dynamic ARP Inspection (DAI) product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Dynamic ARP Inspection (DAI)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 27: Dynamic Host Configuration Protocol product support**

Feature	Product	Release introduced
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**Table 27: Dynamic Host Configuration Protocol product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Dynamic Host Configuration Protocol (DHCP) Relay	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
DHCP Option 82	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 28: Dynamic Host Configuration Protocol Relay for IPv6 product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IPv6 DHCP Relay	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 29: Dynamic Host Configuration Protocol Snooping and Neighbor Discovery Inspection product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
DHCP Snooping(IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
DHCP Snooping (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Neighbor Discovery Inspection (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 30: Dynamic Nickname Assignment product support**

Feature	Product	Release introduced
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**Table 30: Dynamic Nickname Assignment product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Dynamic Nickname Assignment	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Extends the assignment behavior with a <i>prefix</i> parameter	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3

**Table 31: Egress Tunnel Shaping product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Egress Tunnel Shaping	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 32: Endpoint Tracking product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Endpoint Tracking	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.2.5

**Table 33: Energy Efficient Ethernet product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Energy Efficient Ethernet (EEE)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4 All fixed ports on 5420F-24T-4XE, 5420F-24P-4XE, 5420F-48T-4XE, 5420F-48P-4XE, 5420F-48P-4XL, 5420F-8W-16P-4XE, 5420F-16MW-32P-4XE, 5420M-24W-4YE, 5420M-48W-4YE, 5420M-24T-4YE,

**Table 33: Energy Efficient Ethernet product support (continued)**

Feature	Product	Release introduced
		5420M-48T-4YE, 5420M-16MW-32P-4YE
	5520 Series	VOSS 8.2.5 All fixed ports on 5520-24T, 5520-24W, 5520-48T, 5520-48W, and 5520-12MW-36W

**Table 34: Energy Saver product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Energy Saver	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4 Switch models: 5420F-24T-4XE, 5420F-24P-4XE, 5420F-48T-4XE, 5420F-48P-4XE, 5420F-48P-4XL, 5420F-8W-16P-4XE, 5420F-16W-32P-4XE, 5420F-16MW-32P-4XE, 5420M-24W-4YE, 5420M-48W-4YE, 5420M-24T-4YE, 5420M-48T-4YE, 5420M-16MW-32P-4YE
	5520 Series	VOSS 8.2.5 All fixed ports on 5520-24T, 5520-24W, 5520-48T, 5520-48W, and 5520-12MW-36W

**Table 35: Enhanced Secure Mode product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Enhanced Secure mode	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Enhanced Secure mode for JITC and non-JITC sub-modes.	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 35: Enhanced Secure Mode product support (continued)**

Feature	Product	Release introduced
Enhanced Secure mode - sensitive file protection	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5

**Table 36: Enterprise Device Manager product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Enterprise Device Manager (EDM)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Read-Only user for EDM	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 37: Entity MIB product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Entity MIB - Physical Table	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Entity MIB enhancements and integration for the following: <ul style="list-style-type: none"> <li>Physical Table</li> <li>Alias Mapping Table</li> <li>Physical Contains Table</li> <li>Last Change Time object</li> </ul>	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 37: Entity MIB product support (continued)**

Feature	Product	Release introduced
Entity MIB - Logical Table includes the following logical interface entities: <ul style="list-style-type: none"> <li>• VLANs</li> <li>• MLTs</li> <li>• Circuitless IP (CLIP)</li> <li>• Fabric Extend interfaces (logical layer 2 and layer 3 IS-IS interfaces)</li> </ul>	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.4

**Table 38: Equal Cost Multiple Path for IPv4 product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Equal Cost Multiple Path (ECMP) for IPv4	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 39: Equal Cost Multiple Path for IPv6 product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
ECMP for IPv6	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 40: ECMP Pathlist with Fabric Connect product support**

Feature	Product	Release introduced
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**Table 40: ECMP Pathlist with Fabric Connect product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
ECMP Pathlist with Fabric Connect (IS-IS routes)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 41: E-Tree and Private VLANs product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
E-Tree and Private VLANs	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Routing on Private VLANs	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5

**Table 42: Extensible Authentication Protocol over LAN product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Extensible Authentication Protocol (EAP) and EAP over LAN (EAPoL)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
EAPoL MHMA-MV	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
EAPoL enhancements: Enhanced MHMV, Fail Open VLAN, Guest VLAN	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
EAP enhancements: EAP on Flex UNI ports, Auto-sense ports, auto-isid-offset	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3
EAP enhancements: Wake on LAN, Guest I-SID, Fail Open I-SID	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3



**Table 42: Extensible Authentication Protocol over LAN product support (continued)**

Feature	Product	Release introduced
Non EAPoL MAC RADIUS authentication	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
QoS Priority Assignment	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
RADIUS Dynamic User-Based Policies	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3
RADIUS Port and VLAN based Attributes	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.4
Continuity Mode for Fail Open VLAN and Fail Open I-SID	5320 Series	Fabric Engine 8.6
	5420 Series	Fabric Engine 8.6
	5520 Series	Fabric Engine 8.6

**Table 43: Extreme Integrated Application Hosting product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Extreme Integrated Application Hosting	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Fabric IPsec Gateway virtual machine	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Egress Shaper for Fabric Extend tunnels on Fabric IPsec Gateway virtual machine	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 44: Extreme Management Center or ExtremeCloud IQ - Site Engine backup configuration ZIP file product support**

Feature	Product	Release introduced
Extreme Management Center or ExtremeCloud IQ - Site Engine backup configuration ZIP file	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4

**Table 44: Extreme Management Center or ExtremeCloud IQ - Site Engine backup configuration ZIP file product support (continued)**

Feature	Product	Release introduced
For more information, see Extreme Management Center or ExtremeCloud IQ - Site Engine documentation.	5520 Series	VOSS 8.2.5

**Table 45: Fabric Attach product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Fabric Attach Server	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 46: Fabric Attach Zero Touch Client Attachment product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Fabric Attach Zero Touch Client Attachment	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 47: Fabric Extend product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Fabric Extend	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Fabric Extend over IPsec	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Digital Certificate Authentication for Fabric Extend over IPsec	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
ECMP support for Fabric Extend	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 47: Fabric Extend product support (continued)**

Feature	Product	Release introduced
IPsec compression	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Ability to adjust the maximum segment size (MSS)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5
IS-IS hello padding	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4.2
	5520 Series	VOSS 8.2.7
IPsec fragmentation before encryption	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Ability to configure a specific IPsec source IP per tunnel	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 48: Fabric Mode product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Fabric BCB mode	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Fabric BEB mode	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 49: Fabric RSPAN product support**

Feature	Product	Release introduced
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**Table 49: Fabric RSPAN product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Fabric RSPAN (Mirror to I-SID)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 50: FDB Protected by Port product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
FDB protected by port (MAC security limit-learning)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3

**Table 51: Flight Recorder product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Flight Recorder for system health monitoring	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 52: Forward Error Correction product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Forward Error Correction (FEC) (configurable)	5320 Series	Not applicable
	5420 Series	VOSS 8.4 5420M-24T-4YE, 5420M-24W-4YE, 5420M-16MW-32P-4YE, 5420M-48T-4YE, and 5420M-48W-4YE
	5520 Series	VOSS 8.2.5 5520-VIM-4YE only



## Fabric Engine Features G to I

**Table 53: High-Availability product support**

Feature	Product	Release introduced
High Availability-CPU (HA-CPU) for a standalone switch	5320 Series	Not Applicable
	5420 Series	Not Applicable
	5520 Series	Not Applicable
High Availability-CPU (HA-CPU) for Layer 2 with Simplified vIST	5320 Series	Not Applicable
	5420 Series	Not Applicable
	5520 Series	Not Applicable
High Availability-CPU (HA-CPU) for Layer 3 with Simplified vIST	5320 Series	Not Applicable
	5420 Series	Not Applicable
	5520 Series	Not Applicable

**Table 54: IEEE 802.3X Pause Frame Transmit product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IEEE 802.3X Pause frame transmit	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 55: Internet Control Message Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Internet Control Message Protocol (ICMP)	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 55: Internet Control Message Protocol product support (continued)**

Feature	Product	Release introduced
ICMP broadcast and multicast enable or disable	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Fragmented ICMP Packet Filtering for IPv4	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5
Fragmented ICMP Packet Filtering for IPv6	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5

**Table 56: Internet Group Management Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Internet Group Management Protocol (IGMP), including virtualization	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 57: Internet Key Exchange product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Internet Key Exchange (IKE) v2	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 58: Internet Protocol Flow Information eXport (IPFIX) product support**

Feature	Product	Release introduced
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**Table 58: Internet Protocol Flow Information eXport (IPFIX) product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Internet Protocol Flow Information eXport (IPFIX)	5320 Series	Fabric Engine 8.6 5320-48P-8XE and 5320-48T-8XE only
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 59: Inter-VSN Routing product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Inter-VSN routing (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Inter-VSN routing (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 60: IOC Module Preconfiguration**

Feature	Product	Release introduced
IOC Module Preconfiguration	5320 Series	Not Applicable
	5420 Series	Not Applicable
	5520 Series	Not Applicable

**Table 61: IP Phone product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IP Phone Support	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3

**Table 62: IP Multicast over Fabric Connect product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IP Multicast over Fabric Connect	5320 Series	Fabric Engine 8.6

**Table 62: IP Multicast over Fabric Connect product support (continued)**

Feature	Product	Release introduced
		<b>Note:</b> Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Universal Plug and Play (uPnP) Filtering	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.3

**Table 63: IP Route Policies product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IP route policies	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 64: IP Shortcuts product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IP Shortcut routing including ECMP	5320 Series	Fabric Engine 8.6 <b>Note:</b> Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5



**Table 64: IP Shortcuts product support (continued)**

Feature	Product	Release introduced
IPv6 Shortcut routing	5320 Series	Fabric Engine 8.6 <b>Note:</b> Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
IPv4 IS-IS accept policies	5320 Series	Fabric Engine 8.6 <b>Note:</b> Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
IPv6 IS-IS accept policies	5320 Series	Fabric Engine 8.6 <b>Note:</b> Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 65: IP Source Guard product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IP Source Guard (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 65: IP Source Guard product support (continued)**

Feature	Product	Release introduced
IP Source Guard (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 66: IP Source Routing product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IP Source Routing enable or disable	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 67: IPsec product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IPsec NAT-T	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
IPsec transport mode	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
IPsec tunnel mode	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
IPsec for the Out-of-band management port (IPv4)	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
IPsec for the Out-of-band management port (IPv6)	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 67: IPsec product support (continued)**

Feature	Product	Release introduced
Digital Certificates for IPsec Authentication	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 68: IPv6-in-IPv4 tunnels product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IPv6-in-IPv4 tunnels	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 69: IPv6 Router Advertisement (RA) Guard product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IPv6 Router Advertisement (RA) Guard	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 70: IQ Agent product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
ExtremeCloud IQ Agent	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 71: IS-IS product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IS-IS authentication with SHA-256	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 71: IS-IS product support (continued)**

Feature	Product	Release introduced
Suspend duplicate system ID detection	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Multiple IS-IS parallel adjacencies	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5



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**Table 72: Key Health Indicator product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Key Health Indicator (KHI)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 73: Layer 2 Video Surveillance install script product support**

Feature	Product	Release introduced
Layer 2 Video Surveillance install script	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 74: Layer 2 VSN product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Equal Cost Trees (ECT)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Layer 2 Virtual Service Network (VSN)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Switched UNI	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 74: Layer 2 VSN product support (continued)**

Feature	Product	Release introduced
Transparent Port UNI (T-UNI)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 75: Layer 3 Video Surveillance install script product support**

Feature	Product	Release introduced
Layer 3 Video Surveillance install script (formerly known as the run vms endura script)	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 76: Layer 3 VSN product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Layer 3 VSN	5320 Series	Fabric Engine 8.6  <b>Note:</b> Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 77: Licensing product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Universal Hardware licenses	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
License files signed using Extreme Networks signature.	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Subscription-based licenses	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 77: Licensing product support (continued)**

Feature	Product	Release introduced
Ability to extend the Factory Default Premier Trial License	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.4

**Table 78: Link Debounce for WAN Links**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Link Debounce	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5

**Table 79: Link Layer Discovery Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Industry Standard Discovery Protocol (ISDP) (CDP compatible)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Link Layer Discovery Protocol (LLDP)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Link Layer Discovery Protocol-Media Endpoint Discovery (LLDP-MED)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 80: Link-state tracking (LST) product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Link-state tracking (LST)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 81: Linux kernel version product support**

Feature	Product	Release introduced
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**Table 81: Linux kernel version product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Linux kernel version	5320 Series	5.4 as of Fabric Engine 8.6
	5420 Series	5.4 as of Fabric Engine 8.6
	5520 Series	5.4 as of Fabric Engine 8.6

**Table 82: Logs and traps product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Logging to a file and syslog (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Logging to a file and syslog (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Simple Mail Transfer Protocol (SMTP) for log notification	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
System Logging compliance with RFC 5424 and RFC 3339	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
TLS client for secure syslog	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5





## Fabric Engine Features M to O

**Table 83: MACsec product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
MACsec 2AN mode (static)	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
MACsec 4AN mode (static)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.2.5 <ul style="list-style-type: none"> <li>• 5520-24T and 5520-24W - all fixed ports except 1/25 and 1/26</li> <li>• 5520-12MW-36W, 5520-48SE, 5520-48T, and 5520-48W - all fixed ports except 1/49 and 1/50</li> <li>• VIMs: 5520-VIM-4XE and 5520-VIM-4YE only</li> </ul>
MACsec encryption cipher suites	5320 Series	Fabric Engine 8.6 Both 128 bits and 256 bits
	5420 Series	VOSS 8.5 Both 128 bits and 256 bits
	5520 Series	VOSS 8.2.5 <ul style="list-style-type: none"> <li>• 5520-24T and 5520-24W - all fixed ports except 1/25 and 1/26</li> <li>• 5520-12MW-36W, 5520-48SE, 5520-48T, and 5520-48W - all fixed ports except 1/49 and 1/50</li> <li>• VIMs: 5520-VIM-4XE and 5520-VIM-4YE only</li> </ul>

**Table 83: MACsec product support (continued)**

Feature	Product	Release introduced
MACsec Key Agreement (MKA)	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.5 <ul style="list-style-type: none"> <li>5520-24T and 5520-24W</li> <li>5520-12MW-36W, 5520-48SE, 5520-48T, and 5520-48W</li> <li>VIMs: 5520-VIM-4XE and 5520-VIM-4YE only</li> </ul>

**Table 84: Mroute statistics product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Multicast route (mroute) statistics for IPv4 and IPv6	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 85: MSTP-Fabric Connect Multi Homing product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
MSTP-Fabric Connect Multi Homing	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 86: Multi-area SPB**

Feature	Product	Release introduced
Multi-area SPB Boundary Node	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 87: Multicast Listener Discovery product support**

Feature	Product	Release introduced
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**Table 87: Multicast Listener Discovery product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Multicast Listener Discovery (MLD)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 88: MultiLink Trunking product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
MultiLink Trunking (MLT) / Link Aggregation Group (LAG)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 89: Multiple CLI Users product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Multiple CLI users per role	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 90: Network Load Balancing product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Network Load Balancing (NLB) - multicast operation	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.2.5
Network Load Balancing (NLB) - unicast operation	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.2.5

**Table 91: Network operating system personality product support**

Feature	Product	Release introduced
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**Table 91: Network operating system personality product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Dual-boot personalities	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 92: Network Time Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
NTPv3 client	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
NTPv3 with SHA authentication	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
NTPv4 client for IPv4	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
NTPv4 client for IPv6	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
NTPv4 master and restrict	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 93: nni-mstp boot flag product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
nni-mstp boot flag ( <b>boot config flags nni-mstp</b> )	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 94: OSPF product support**

Feature	Product	Release introduced
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**Table 94: OSPF product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Open Shortest Path First (OSPF)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Secure hash algorithm 1 (SHA-1) and SHA-2	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 95: OSPFv3 product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
OSPFv3	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
OSPFv3 support for CLIP interfaces	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported



## Fabric Engine Features P to R

**Table 96: PIM over IPv6 product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
PIM over IPv6	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 97: Port-Based Rate Limiting, Policing, and Shaping product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Egress port shaper	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Ingress dual rate port policers	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
Ingress policer and port rate limiter	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5
QoS ingress port rate limiter	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 98: Port Mirroring product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Ingress mirroring (port and flow-based)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 98: Port Mirroring product support (continued)**

Feature	Product	Release introduced
Egress mirroring (port-based)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 99: Power Manager product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Power Management	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 100: Power over Ethernet product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Power over Ethernet (PoE)	5320 Series	Fabric Engine 8.6 5320-24P-8XE, 5320-48P-8XE, 5320-16P-4XE, and 5320-16P-4XE-DC.
	5420 Series	VOSS 8.4 5420F-24P-4XE, 5420F-48P-4XE, 5420F-48P-4XL, 5420F-8W-16P-4XE, 5420F-16W-32P-4XE, 5420F-16MW-32P-4XE, 5420M-24W-4YE, 5420M-48W-4YE, and 5420M-16MW-32P-4YE
	5520 Series	VOSS 8.2.5 5520-12MW-36W, 5520-24W and 5520-48W only

**Table 100: Power over Ethernet product support (continued)**

Feature	Product	Release introduced
PoE/PoE+ allocation using LLDP	5320 Series	Fabric Engine 8.6 5320-24P-8XE, 5320-48P-8XE, 5320-16P-4XE, and 5320-16P-4XE-DC.
	5420 Series	VOSS 8.4 5420F-24P-4XE, 5420F-48P-4XE 5420F-8W-16P-4XE, , 5420F-16W-32P-4XE, 5420F-16MW-32P-4XE , 5420F-48P-4XL, 5420M-24W-4YE, 5420M-48W-4YE, and 5420M-16MW-32P-4YE
	5520 Series	VOSS 8.2.5 5520-12MW-36W, 5520-24W and 5520-48W only
Fast PoE	5320 Series	Fabric Engine 8.6 5320-24P-8XE, 5320-48P-8XE, 5320-16P-4XE, and 5320-16P-4XE-DC.
	5420 Series	VOSS 8.4 5420F-24P-4XE, 5420F-48P-4XE 5420F-8W-16P-4XE, , 5420F-16W-32P-4XE, 5420F-16MW-32P-4XE , 5420F-48P-4XL, 5420M-24W-4YE, 5420M-48W-4YE, and 5420M-16MW-32P-4YE
	5520 Series	VOSS 8.2.5 5520-12MW-36W, 5520-24W and 5520-48W only



**Table 100: Power over Ethernet product support (continued)**

Feature	Product	Release introduced
Perpetual PoE	5320 Series	Fabric Engine 8.6 5320-24P-8XE, 5320-48P-8XE, 5320-16P-4XE, and 5320-16P-4XE-DC.
	5420 Series	VOSS 8.4 5420F-24P-4XE, 5420F-48P-4XE 5420F-8W-16P-4XE, , 5420F-16W-32P-4XE, 5420F-16MW-32P-4XE , 5420F-48P-4XL, 5420M-24W-4YE, 5420M-48W-4YE, and 5420M-16MW-32P-4YE
	5520 Series	VOSS 8.2.5 5520-12MW-36W, 5520-24W and 5520-48W only

**Table 101: Protocol Independent Multicast-Source Specific Mode product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
PIM-Source Specific Mode (PIM-SSM) for IPv4	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 102: Protocol Independent Multicast - Sparse Mode product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Protocol Independent Multicast-Sparse Mode (PIM-SM) for IPv4	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
PIM Infinite Threshold for IPv4 and IPv6	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.5
	5520 Series	VOSS 8.5

**Table 103: QoS and VoIP product support**

Feature	Product	Release introduced
Automatic QoS	5320 Series	Not Supported

**Table 103: QoS and VoIP product support (continued)**

Feature	Product	Release introduced
		Use Auto-sense with IP Phone support instead.
	5420 Series	Not Supported Use Auto-sense with IP Phone support instead.
	5520 Series	Not Supported Use Auto-sense with IP Phone support instead.

**Table 104: Queue Profiles product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
QoS per queue rate limiting	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 105: RADIUS product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
RADIUS (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
RADIUS attributes: • Acct-Terminate-Cause • Event-Timestamp • Service Type	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
RADIUS, community-based users (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
RADIUS secure communication using IPSec for IPv4	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
RADIUS secure communication using IPSec for IPv6	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 105: RADIUS product support (continued)**

Feature	Product	Release introduced
RADIUS Security (RADSec)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
RFC 5176 – Dynamic Authorization Extensions to RADIUS	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
RFC 5997 – RADIUS Reachability Server Status	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 106: Remote Monitoring product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Remote Monitoring 1 (RMON1) for Layer 1 and Layer 2	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Remote Monitoring 2 (RMON2) for network and application layer protocols	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 107: Representational State Transfer Configuration Protocol (RESTCONF) product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Representational State Transfer Configuration Protocol (RESTCONF)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 108: RIPng product support**

Feature	Product	Release introduced
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**Table 108: RIPng product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
RIPng	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 109: Routing Information Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Routing Information Protocol (RIP)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 110: RSMLT for IPv4 product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IPv4 RSMLT	5320 Series	Not Supported
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 111: RSMLT for IPv6 product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IPv6 RSMLT	5320 Series	Not Supported
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 112: run spbm installation script product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
run spbm installation script	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5



## Fabric Engine Features S to U

**Table 113: Secure Shell product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Secure Shell (SSH) server (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Secure Shell (SSH) client (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Secure Sockets Layer (SSL) certificate management	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
SSH server (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
SSH client (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
SSH client disable	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
SSH key sizes in multiples of 1024	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 113: Secure Shell product support (continued)**

Feature	Product	Release introduced
SSH rekey	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 114: Segmented Management Instance product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Segmented Management Instance - Management Interface CLIP	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Segmented Management Instance - Management Interface OOB	5320 Series	Not Applicable
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Segmented Management Instance - Management Interface VLAN	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Segmented Management Instance — ability to migrate VLAN or loopback IP address	5320 Series	Not Applicable
	5420 Series	Not Applicable
	5520 Series	Not Applicable
Segmented Management Instance — DHCP Client for Management Interface OOB or Management Interface VLAN	5320 Series	Fabric Engine 8.6 OOB not supported
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 115: sFlow product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
sFlow	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 115: sFlow product support (continued)**

Feature	Product	Release introduced
sFlow collector reachability on user-created VRFs	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 116: Simple Loop Prevention Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Simple Loop Prevention Protocol (SLPP)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 117: Simple Network Management Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Simple Network Management Protocol (SNMP) v1/2/3 (IPv4)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
SNMP (IPv6)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 118: SLA Mon product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
SLA Mon	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported

**Table 119: SLPP Guard product support**

Feature	Product	Release introduced
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**Table 119: SLPP Guard product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
SLPP Guard	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 120: SONMP product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
SONMP	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 121: Spanning Tree Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Spanning Tree Protocol (STP): <ul style="list-style-type: none"> <li>• Multiple STP (MSTP)</li> <li>• Rapid STP (RSTP)</li> </ul>	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 122: spbm-config-mode product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
spbm-config-mode ( <b>boot config flags spbm-config-mode</b> )	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 123: SPB-PIM Gateway product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
SPB-PIM Gateway controller node	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.2.5



**Table 123: SPB-PIM Gateway product support (continued)**

Feature	Product	Release introduced
SPB-PIM Gateway interface	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	VOSS 8.2.5

**Table 124: Static routing product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Static routing	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 125: TACACS+ product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
TACACS+	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
TACACS+ secure communication using IPsec for IPv4	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 126: TLS server for secure HTTPS product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
TLS server for secure HTTPS	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 127: Two-Factor Authentication for SSH product support**

Feature	Product	Release introduced
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**Table 127: Two-Factor Authentication for SSH product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Two-Factor Authentication for SSH	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 128: Unicast Reverse Path Forwarding product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Unicast Reverse Path Forwarding (URPF) checking (IPv4)	5320 Series	Fabric Engine 8.6 5320-48P-8XE and 5320-48T-8XE only
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Unicast Reverse Path Forwarding (URPF) checking (IPv6)	5320 Series	Fabric Engine 8.6 5320-48P-8XE and 5320-48T-8XE only
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5



## Fabric Engine Features V to X

**Table 129: Virtual Inter-Switch Trunk product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Switch cluster (multi-chassis LAG) -Virtual Inter-Switch Trunk (vIST)	5320 Series	Not Supported
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 130: Virtual Link Aggregation Control Protocol (VLACP) product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Virtual Link Aggregation Control Protocol (VLACP)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
VLACP Flap Detect and Damping	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 131: Virtual Router Redundancy Protocol product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Virtual Router Redundancy Protocol (VRRP)	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
VRRPv3 for IPv4	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 132: Virtual Router Redundancy Protocol for IPv6 product support**

Feature	Product	Release introduced
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**Table 132: Virtual Router Redundancy Protocol for IPv6 product support (continued)**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
IPv6 VRRP	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
VRRPv3 for IPv6	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 133: Virtual Routing and Forwarding product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Virtualization with IPv4 Virtual Routing and Forwarding (VRF) <ul style="list-style-type: none"> <li>• ARP</li> <li>• DHCP Relay</li> <li>• Inter-VRF Routing (static, dynamic, and policy)</li> <li>• Local routing</li> <li>• OSPFv2</li> <li>• RIPv1 and v2</li> <li>• Route policies</li> <li>• Static routing</li> <li>• VRRP</li> </ul>	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
Increased VRF and Layer 3 VSN scaling	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
IBGP over user-created VRFs	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 133: Virtual Routing and Forwarding product support (continued)**

Feature	Product	Release introduced
IPv6 Virtualization for the following features and functions: <ul style="list-style-type: none"> <li>• IPv6 Interfaces and IPv6 Static Routes in VRFs and Layer 3 VSNs</li> <li>• ECMP and Alternative route</li> <li>• Route redistribution for static and direct routes</li> <li>• VRRPv3 for IPv6</li> <li>• DHCP Relay</li> <li>• IPv6 Reverse Path Forwarding</li> <li>• ICMP Ping and Traceroute</li> </ul>	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
IPv6 Virtualization for the following features and functions: <ul style="list-style-type: none"> <li>• Open Shortest Path First for IPv6 (OSPFv3)</li> <li>• IPv6 Border Gateway Protocol (IPv6 BGP)</li> <li>• IPv6 route redistribution enhancements</li> </ul>	5320 Series	Fabric Engine 8.6 Only 5320-48P-8XE and 5320-48T-8XE support more than one VRF with IP configuration.
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 134: VXLAN Gateway product support**

Feature	Product	Release introduced
VXLAN Gateway	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
OVSDB protocol support for VXLAN Gateway	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported
ECMP support for VXLAN Gateway	5320 Series	Not Supported
	5420 Series	Not Supported
	5520 Series	Not Supported



# Fabric Engine Features Y and Z

**Table 135: Zero Touch Deployment product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Zero Touch Deployment	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 136: Zero Touch Fabric Configuration product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Zero Touch Fabric Configuration	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5
LLDP Fabric Connect TLV	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5

**Table 137: Zero Touch Provisioning Plus product support**

Feature	Product	Release introduced
For configuration details, see <a href="#">Fabric Engine User Guide</a> .		
Zero Touch Provisioning Plus	5320 Series	Fabric Engine 8.6
	5420 Series	VOSS 8.4
	5520 Series	VOSS 8.2.5