



Extreme SLX-OS Scale and Standards Matrix, 20.2.1

Supporting
SLX 9740, SLX 9640, SLX 9540, SLX 9150, and SLX
9250

9036683-00 Rev AA
June 2020



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Preface

This section describes the text conventions used in this document, where you can find additional information, and how you can provide feedback to us.

Text Conventions

Unless otherwise noted, information in this document applies to all supported environments for the products in question. Exceptions, like command keywords associated with a specific software version, are identified in the text.

When a feature, function, or operation pertains to a specific hardware product, the product name is used. When features, functions, and operations are the same across an entire product family, such as ExtremeSwitching switches or SLX routers, the product is referred to as *the switch* or *the router*.

Table 1: Notes and warnings

Icon	Notice type	Alerts you to...
	Tip	Helpful tips and notices for using the product.
	Note	Useful information or instructions.
	Important	Important features or instructions.

Table 1: Notes and warnings (continued)

Icon	Notice type	Alerts you to...
	Caution	Risk of personal injury, system damage, or loss of data.
	Warning	Risk of severe personal injury.

Table 2: Text

Convention	Description
screen displays	This typeface indicates command syntax, or represents information as it appears on the screen.
The words <i>enter</i> and <i>type</i>	When you see the word <i>enter</i> in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says <i>type</i> .
Key names	Key names are written in boldface, for example Ctrl or Esc . If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press Ctrl+Alt+Del
Words in <i>italicized type</i>	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.
NEW!	New information. In a PDF, this is searchable text.

Table 3: Command syntax

Convention	Description
bold text	Bold text indicates command names, keywords, and command options.
<i>italic text</i>	Italic text indicates variable content.
[]	Syntax components displayed within square brackets are optional. Default responses to system prompts are enclosed in square brackets.
{ x y z }	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x y	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, such as passwords, are enclosed in angle brackets.
...	Repeat the previous element, for example, <i>member</i> [<i>member</i> . . .].
\	In command examples, the backslash indicates a “soft” line break. When a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

Documentation and Training

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/.

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

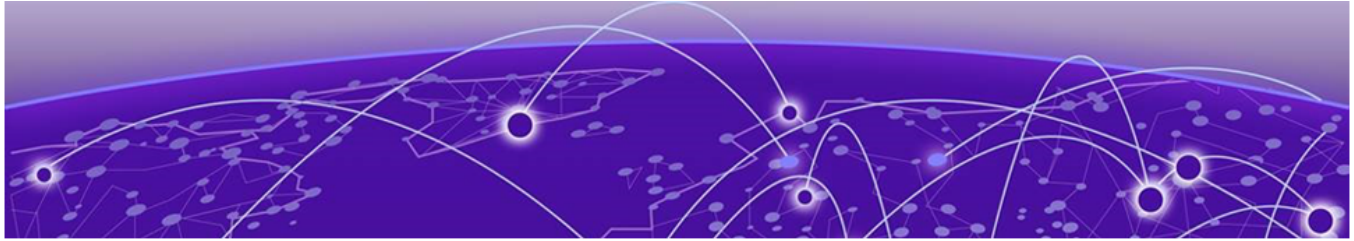
The Information Development team at Extreme Networks has made every effort to ensure the accuracy and completeness of this document. We are always striving to improve our documentation and help you work better, so we want to hear from you. We welcome all feedback, but we especially want to know about:

- 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.



About This Document

[What's New in this Document](#) on page 8

[Supported Hardware](#) on page 8

What's New in this Document

This document is released with Extreme SLX-OS 20.2.1. The following sections were updated to include the SLX 9740:

- [RFC Compliance](#) on page 9
- [IEEE Standards Compliance Matrix](#) on page 27
- [SLX 9740 Scalability Matrix](#) on page 29

Supported Hardware

For instances in which a topic or part of a topic applies to some devices but not to others, the topic specifically identifies the devices.

SLX-OS 20.2.1 supports the following hardware platforms.

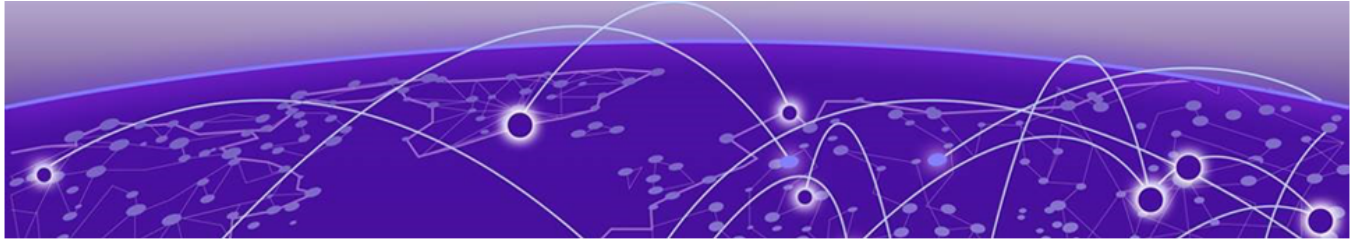
- Devices based on the Broadcom XGS® chipset family:
 - ExtremeSwitching SLX 9250
 - ExtremeSwitching SLX 9150
- Devices based on the Broadcom DNX® chipset family:
 - ExtremeRouting SLX 9640
 - ExtremeSwitching SLX 9540
 - ExtremeRouting SLX 9740



Note

Although many software and hardware configurations are tested and supported for this release, documenting all possible configurations and scenarios is beyond the scope of this document.

For information about other releases, see the documentation for those releases.



RFC Compliance

[General Protocols](#) on page 9

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General Protocols

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 768	User Datagram Protocol (UDP)	X	X	X	X
RFC 791	Internet Protocol (IP)	X	X	X	X
RFC 792	Internet Control Message Protocol (ICMP)	X	X	X	X
RFC 793	Transmission Control Protocol (TCP)	X	X	X	X
RFC 826	ARP	X	X	X	X
RFC 894	IP over Ethernet	X	X	X	X
RFC 903	RARP	X	X	X	X
RFC 906	TFTP Bootstrap	X	X	X	X
RFC 950	Subnet	X	X	X	X
RFC 951	BootP	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 1027	Proxy ARP	X	X	X	X
RFC 1042	Standard for the Transmission of IP	X	X	X	X
RFC 1122	Requirements for Internet Hosts	X	X	X	X
RFC 1166	Internet Numbers	X	X	X	X
RFC 1191	Path MTU Discovery	X	X	X	X
RFC 1542	BootP Extensions	X	X	X	X
RFC 1591	DNS (client)	X	X	X	X
RFC 1812	Requirements for IP Version 4 Routers	X	X	X	X
RFC 1858	Security Considerations for IP Fragment Filtering	X	X	X	X
RFC 2131	BootP/DHCP Helper	X	X	X	X
RFC 2784	Generic Routing Encapsulation (GRE)	N/A	X	X	X
RFC 2819	RMON Groups 1, 2, 3, 9	X	X	X	X
RFC 3021	Using 31-Bit Prefixes on IPv4 Point-to-Point Links	X	X	X	X
RFC 3046	DHCP Relay Agent Information Option	X	X	X	X
RFC 3232	Assigned Numbers	X	X	X	X
RFC 3527	Link Selection Sub Option for the Relay Agent Information Option for DHCPv4	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 3768	Virtual Router Redundancy Protocol (VRRP)	X	X	X	X
RFC 4001	INET-ADDRESS-MIB	X	X	X	X
RFC 4632	Classless Interdomain Routing (CIDR)	X	X	X	X
RFC 5880	Bidirectional Forwarding Detection	X	X	X	X
RFC 5881	Bidirectional Forwarding Detection for IPv4 and IPv6 (Single Hop)	X	X	X	X
RFC 5882	Generic Application of Bidirectional Forwarding Detection	X	X	X	X
RFC 5883	Bidirectional Forwarding Detection for Multihop Paths	X	X	X	X

BGPv4

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 1745	OSPF Interactions	X	X	X	X
RFC 1772	Application of BGP in the Internet	X	X	X	X
RFC 1997	Communities and Attributes	X	X	X	X
RFC 2385	BGP Session Protection via TCP MD5	X	X	X	X
RFC 2439	Route Flap Dampening	X	X	X	X
RFC 2918	Route Refresh Capability	X	X	X	X
RFC 3392	Capability Advertisement	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 3682	Generalized TTL Security Mechanism for eBGP Session Protection	X	X	X	X
RFC 4271	BGPv4	X	X	X	X
RFC 4364	BGP/MPLS IP Virtual Private Networks	N/A	X	X	X
RFC 4456	Route Reflection	X	X	X	X
RFC 4486	Sub codes for BGP Cease Notification Message	X	X	X	X
RFC 4724	Graceful Restart Mechanism for BGP	X	X	X	X
RFC 5065	BGP4 Confederations	X	X	X	X
RFC 5291	Outbound Route Filtering Capability for BGP4	X	X	X	X
RFC 5396	Textual Representation of Autonomous System (AS) Numbers	X	X	X	X
RFC 5575	Dissemination of Flow Specification Rules (BGP Flow Spec)	X	X	X	X
RFC 5668	4-Octet AS specific BGP Extended Community	X	X	X	X
RFC 6198	Requirements for the Graceful Shutdown of BGP Sessions	X	X	X	X
RFC 6793	BGP Support for Four-octet AS Number Space	X	X	X	X
RFC 8092	BG Large Community Attribute	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 8326	Graceful BGP Session Shutdown	X	X	X	X
Draft-ietf-rtgwg-bgp-pic-07.txt	BGP Prefix Independent Convergence	X	X	X	X
sFlow BGP AS Path		X	X	X	X

Element Security

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
AAA		X	X	X	X
Username/Password (Challenge and Response)		X	X	X	X
Bi-level Access Mode (Standard and EXEC Level)		X	X	X	X
Role-based Access Control (RBAC)		X	X	X	X
RFC 2865	RADIUS	X	X	X	X
RFC 2866	RADIUS Accounting	X	X	X	X
RFC 3162	RADIUS and IPv6	X	X	X	X
RFC 3986	Uniform Resource Identifier (URI): Generic Syntax	X	X	X	X
RFC 4251	Secure Shell (SSH) Protocol Architecture	X	X	X	X
RFC 4253	Secure Shell (SSH)	X	X	X	X
RFC 4346	TLS 1.1	X	X	X	X
RFC 4510 thru 4519	LDAP/LDAP over TLS	X	X	X	X
RFC 4742	Using the NETCONF Configuration Protocol over Secure Shell (SSH)	X	X	X	X
RFC 5246	TLS 1.2	X	X	X	X
RFC 5280	Internet X.509 PKI Certificates	X	X	X	X
RFC 5905	NTP Version 4	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 5961	TCP Security	X	X	X	X
RFC 6020	YANG – A Data Modeling Language for the Network Configuration Protocol (NETCONF)	X	X	X	X
RFC 6021	Common YANG Data Types	X	X	X	X
RFC 6241	NETCONF Configuration Protocol (Partial)	X	X	X	X
RFC 6613	RADIUS over TCP	X	X	X	X
RFC 6614	Transport Layer Security (TLS) Encryption for RADIUS	X	X	X	X
RFC 6749, 7515, 7519	OAuth2 - JSON Web Token (JWT)	X	X	X	X
RFC 6960	Internet X.509 PKI Certificates	X	X	X	X
TACACS/TACACS+		X	X	X	X
NTP client and NTP server		X	X	X	X
Protection against Denial of Service (DoS) attacks such as TCP SYN or Smurf Attacks		X	X	X	X

Open Shortest Path First

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 1745	OSPF Interactions	X	X	X	X
RFC 1765	OSPF Database Overflow	X	X	X	X
RFC 2328	OSPF v2	X	X	X	X
RFC 3101	OSPF NSSA	X	X	X	X
RFC 3137	OSPF Stub Router Advertisement	X	X	X	X
RFC 3623	Graceful OSPF Restart	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 3630	TE Extensions to OSPF v2	N/A	X	X	X
RFC 4222	Prioritized Treatment of Specific OSPF Version 2	X	X	X	X
RFC 5250	OSPF Opaque LSA Option	X	X	X	X
RFC 5709	X	X	X	X	X
RFC 7166	X	X	X	X	X
RFC 7474	X	X	X	X	X

Intermediate System to Intermediate System

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 1142	OSI IS-IS Intra-domain Routing Protocol	X	X	X	X
RFC 1195	Routing in TCP/IP and Dual Environments	X	X	X	X
RFC 3277	IS-IS Blackhole Avoidance	X	X	X	X
RFC 5120	IS-IS Multi-Topology Support	X	X	X	X
RFC 5301	Dynamic Host Name Exchange	X	X	X	X
RFC 5302	Domain-wide Prefix Distribution	X	X	X	X
RFC 5303	Three-Way Handshake for IS-IS Point-to-Point	X	X	X	X
RFC 5304	IS-IS Cryptographic Authentication (MD-5)	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 5306	Restart Signaling for IS-IS (helper mode)	X	X	X	X
RFC 5309	Point-to-point operation over LAN in link state routing protocol	X	X	X	X

IPv4 Multicast

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 1112	IGMP v1	X	X	X	X
RFC 2236	IGMP v2	X	X	X	X
RFC 3376	IGMP v3	X	X	X	X
RFC 4601	PIM-SM	X	X	X	X
RFC 4607	PIM-SSM	X	X	X	X
RFC 4610	Anycast RP using PIM	X	X	X	X
RFC 5059	BSR for PIM	X	X	X	X
PIM IPv4 MCT		X	X	X	N/A

Quality of Service

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 2474	DiffServ Definition	X	X	X	X
RFC 2475	An Architecture for Differentiated Services	X	X	X	X
RFC 2597	Assured Forwarding PHB Group	X	X	X	X
RFC 2697	Single Rate Three-Color Marker	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 2698	A Two-Rate Three-Color Marker	X	X	X	X
RFC 3246	An Expedited Forwarding PHB	X	X	X	X

IPv6 Core

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 1887	IPv6 unicast address allocation architecture	X	X	X	X
RFC 1981	IPv6 Path MTU Discovery	X	X	X	X
RFC 2375	IPv6 Multicast Address Assignments	X	X	X	X
RFC 2450	Proposed TLA and NLA Assignment Rules	X	X	X	X
RFC 2460	IPv6 Specification	X	X	X	X
RFC 2464	Transmission of IPv6 over Ethernet Networks	X	X	X	X
RFC 2471	IPv6 Testing Address allocation	X	X	X	X
RFC 2711	IPv6 Router Alert Option	X	X	X	X
RFC 3315	Dynamic Host Configuration Protocol for IPv6 (DHCPv6)	X	X	X	X
RFC 3587	IPv6 Global Unicast Address Format	X	X	X	X
RFC 3701	IPv6 Testing Address allocation	X	X	X	X
					X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 4193	Unique Local IPv6 Unicast Addresses	X	X	X	X
RFC 4291	IPv6 Addressing architecture	X	X	X	X
RFC 4301	IP Security Architecture	X	X	X	X
RFC 4303	Encapsulating Security Payload (ESP)	X	X	X	X
RFC 4305	ESP and AH cryptography	X	X	X	X
RFC 4443	ICMPv6	X	X	X	X
RFC 4552	Auth for OSPFv3 using AH/ESP	X	X	X	X
RFC 4835	Cryptographic Alg. Req. for ESP	X	X	X	X
RFC 4861	Neighbor Discovery for IPv6	X	X	X	X
RFC 4862	IPv6 Stateless Address Auto-configuration	X	X	X	X
RFC 8200	IPv6 Specification	X	X	X	X
RFC 8201	IPv6 Path MTU Discovery	X	X	X	X

IPv6 Routing

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 2545	Use of BGP-MP for IPv6	X	X	X	X
RFC 5308	Routing IPv6 with IS-IS	X	X	X	X
RFC 5340	OSPFv3 for IPv6	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 6164	Using 127-Bit IPv6 Prefixes on Inter-Router Links	X	X	X	X
RFC 8106	Support for IPv6 Router Advertisements with DNS Attributes	X	X	X	X

Multiprotocol Label Switching

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 2205	RSVP v1 Functional Specification	N/A	X	X	X
RFC 2209	RSVP v1 Message Processing Rules	N/A	X	X	X
RFC 2674	P-BRIDGE-MIB	N/A	X	X	X
RFC 2702	TE over MPLS	N/A	X	X	X
RFC 2961	RSVP Refresh Overhead Reduction Extensions	N/A	X	X	X
RFC 3031	MPLS Architecture	N/A	X	X	X
RFC 3032	MPLS Label Stack Encoding	N/A	X	X	X
RFC 3037	LDP Applicability	N/A	X	X	X
RFC 3097	RSVP Cryptographic Authentication	N/A	X	X	X
RFC 3209	RSVP-TE	N/A	X	X	X
RFC 3478	LDP Graceful Restart	N/A	X	X	X
RFC 3813	MPLS-LSR-STD-MIB	N/A	X	X	X
RFC 3815	MPLS-LDP-STD-MIB MPLS-LDP-GENERIC-STD-MIB	N/A	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 4090	Fast Re-Route for RSVP-TE for LSP Tunnels; partial support	N/A	X	X	X
RFC 4379	OAM	N/A	X	X	X
RFC 4448	Encapsulation Methods for Transport of Ethernet over MPLS Networks	N/A	X	X	X
RFC 5036	LDP Specification	N/A	X	X	X
RFC 5305	ISIS-TE	N/A	X	X	X
RFC 5443	LDP IGP Synchronization	N/A	X	X	X
RFC 5561	LDP Capabilities	N/A	X	X	X
RFC 5712	MPLS traffic Engineering Soft Preemption	N/A	X	X	X
RFC 5918	LDP "Typed Wildcard" FEC	N/A	X	X	X
RFC 5919	Signaling LDP Label Advertisement Completion	N/A	X	X	X

Layer 2 Virtual Private Network and Pseudowire Emulation Edge to Edge

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 3343	TTL Processing in MPLS Networks	N/A	X	X	X
RFC 3985	Pseudowire Emulation Edge to Edge (PWE3) Architecture	N/A	X	X	X
RFC 4265	VPN-TC-STD-MIB	N/A	X	X	X
RFC 4364	BGP/MPLS IP Virtual Private Networks4	N/A	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 4447	Pseudowire Setup and Maintenance using LDP	N/A	X	X	X
RFC 4448	Encapsulation Methods for Transport of Ethernet Frames Over IP/MPLS Networks	N/A	X	X	X
RFC 4664	Framework for Layer 2 Virtual Private Networks	N/A	X	X	X
RFC 4665	Service Requirements for Layer 2 Provider-Provisioned Virtual Private Networks	N/A	X	X	X
RFC 4762	Virtual Private LAN Service (VPLS) Using LDP Signaling	N/A	X	X	X
RFC 5542	PW-TC-STD-MIB	N/A	X	X	X
RFC 5601	IANA-PWE3-MIB PW-STD-MIB	N/A	X	X	X
RFC 6391	Flow-Aware Transport of Pseudowires	N/A	X	X	X
RFC 6870	PW Preferential Forwarding Status Bit3	N/A	X	X	X
RFC 7348	Virtual eXtensible Local Area Network (VXLAN): A Framework for Overlaying Virtualized Layer 2 Networks over Layer 3 Networks (Partial)	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 8365	A Network Virtualization Overlay Solution Using Ethernet VPN (EVPN) (partial)	X	X	X	X
draft-sd-l2vpn-evpn-overlay-03		X	X	X	X
draft-ietf-bess-evpn-prefix-advertisement-11		X	X	X	X

Manageability and Visibility

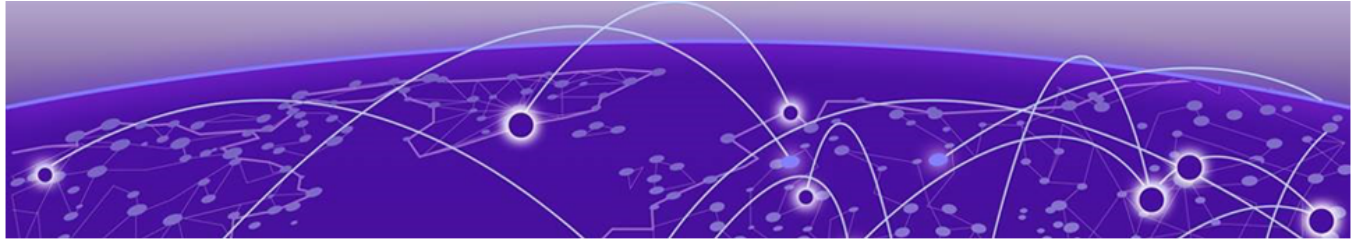
RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
Integrated industry-standard Command Line Interface (CLI)		X	X	X	X
RFC 854	Telnet	X	X	X	X
RFC 1573	IANAifType-MIB	X	X	X	X
RFC 2068	HTTP	X	X	X	X
RFC 2571	SNMP-FRAMEWORK-MIB	X	X	X	X
RFC 2572	SNMP-MPD-MIB	X	X	X	X
RFC 2573	SNMP-TARGET-MIB SNMP-NOTIFICATION-MIB	X	X	X	X
RFC 2574	SNMP-USER-BASED-SM-MIB		X	X	X
RFC 2575	SNMP-VIEW-BASED-ACM-MIB	X	X	X	X
RFC 2576	SNMP-COMMUNITY-MIB	X	X	X	X
RFC 2818	HTTPS	X	X	X	X
RFC 2665	Ethernet Interface MIB	X	X	X	X
RFC 2677	IANA-ADDRESS-FAMILY-NUMBERS-MIB	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
IANA ifType-MIB [https://www.iana.org/assignments/ianaiftype-mib/ianaiftype-mib]		X	X	X	X
RFC 2790	HOST-RESOURCES-MIB	X	X	X	X
RFC 2856	HCNUM-TC	X	X	X	X
RFC 2863	IF-MIB	X	X	X	X
RFC 2932	IANA-RTPROTO-MIB	X	X	X	X
RFC 3176	sFlow	X	X	X	X
sFlow extension to VXLAN		X	X	X	X
RFC 3273	RMON2-MIB	X	X	X	X
RFC 3289	DIFFSERV-DSCP-TC INTEGRATED-SERVICES-MIB DIFFSERV-MIB	X	X	X	X
RFC 3418	SNMPv2-MIB	X	X	X	X
RFC 3419	TRANSPORT-ADDRESS-MIB	X	X	X	X
RFC 3584	Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework	X	X	X	X
RFC 3593	PerfHist-TC-MIB	X	X	X	X
RFC 3705	HC-PerfHist-TC-MIB	X	X	X	X
sFlow Version 5 and sFlow VxLAN extensions		X	X	X	X
Secure Copy (SCP v2) SFTP		X	X	X	X
SFTP		X	X	X	X
RFC 8040	RESTCONF Protocol - PATCH, PUT, POST, DELETE support	X	X	X	X
RFC 4022	TCP-MIB	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 4087	IP Tunnel MIB	X	X	X	X
RFC 4113	UDP-MIB	X	X	X	X
RFC 4133	Entity MIB	X	X	X	X
RFC 4253	Secure Shell (SSH)	X	X	X	X
RFC 4254	Secure Shell (SSH) Connection Protocol	X	X	X	X
RFC 4344	SSH Transport Layer Encryption Modes	X	X	X	X
RFC 4419	Diffie-Hellman Group Exchange for the Secure Shell (SSH) Transport Layer Protocol	X	X	X	X
RFC 6187	X.509v3 Certificates for Secure Shell Authentication	X	X	X	X
draft-ietf-secsh-filexfer-13.txt SSH File Transfer Protocol (SFTP)		X	X	X	X
Secure Copy (SCP v2)		X	X	X	X
RFC 4293	IP MIB	X	X	X	X
RFC 4741	NETCONF (Partial)	X	X	X	X
Chrome		X	X	X	X
Curl		X	X	X	X
Tcpdump		X	X	X	X
Wireshark		X	X	X	X
SNMP v1/v2c/v3		X	X	X	X
RFC 1157	Simple Network Management Protocol	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
RFC 1908	Coexistence between Version 1 and Version 2 of the Internet-standard Network Management Framework	X	X	X	X
RFC 2578	Structure of Management Information Version 2	X	X	X	X
RFC 2579	Textual Conventions for SMIv2	X	X	X	X
RFC 2580	Conformance Statements for SMIv2	X	X	X	X
RFC 3410	Introduction and Applicability Statements for Internet Standard Management Framework	X	X	X	X
RFC 3411	An Architecture for Describing SNMP Management Frameworks	X	X	X	X
RFC 3412	Message Processing and Dispatching	X	X	X	X
RFC 3413	SNMP Applications	X	X	X	X
RFC 3414	User-based Security Model	X	X	X	X
RFC 3415	View-based Access Control Model	X	X	X	X
RFC 3416	Version 2 of SNMP Protocol Operations	X	X	X	X
RFC 3417	Transport Mappings	X	X	X	X
RFC 2819	RMON Groups 1, 2, 3, 9	X	X	X	X

RFC Number	RFC Name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
IEEE8021-PAE-MIB		X	X	X	X
IEEE802 LLDP MIB		X	X	X	X
IEEE8023-LAGMIB		X	X	X	X
RFC 1213	MIB-II	X	X	X	X
RFC 4292	IP-FORWARD-MIB	X	X	X	X
RFC 4188	BRIDGE-MIB	X	X	X	X
RFC 4750	OSPF-MIB	X	X	X	X
RFC 5643	OSPFv3 MIB	X	X	X	X
RFC 4363	Q-BRIDGE-MIB	X	X	X	X
RFC 3635	EtherLike-MIB	X	X	X	X
RFC 3811	MPLS TC STD MIB	N/A	X	X	X
RFC 3812	MPLS-TE-STD-MIB	N/A	X	X	X
RFC 3813	MPLS-LSR-STD-MIB	N/A	X	X	X
RFC 3826	SNMP-USM-AES MIB	X	X	X	X
RFC 4273	BGP4-MIB	X	X	X	X
draft-ietf-idr-bgp4-mibv2-15		X	X	X	X
RFC 4318	RSTP-MIB	X	X	X	X
RFC 4444	ISIS-MIB	X	X	X	X
RFC 4878	DOT3-OAM-MIB	X	X	X	X
RFC 7257	VPLS-GENERIC-MIB VPLS-LDP-MIB VPLS-BGP-MIB	X	X	X	X
RFC 7330	BFD-TC-STD-MIB IANA-BFD-TC-STD-MIB	X	X	X	X
RFC 7331	BFD-STD-MIB	X	X	X	X



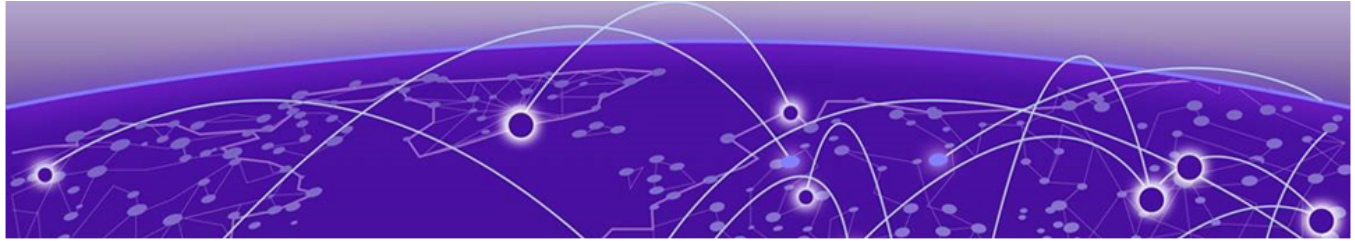
SLX-OS IEEE standards compliance

[IEEE Standards Compliance Matrix](#) on page 27

IEEE Standards Compliance Matrix

IEEE standard number	IEEE standard name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
IEEE Std 802.1AB-2005	LLDP-MIB LLDP-EXT-DOT1-MIB LLDP-EXT-DOT3-MIB	X	X	X	X
IEEE P802.1AG D8.1	IEEE8021-CFM-MIB	X	X	X	X
IEEE 802.1AP	IEEE8021-CFM-V2-MIB	X	X	X	X
IEEE 802.3-2005	CSMA/CD Access Method and Physical Layer Specifications	X	X	X	X
IEEE 802.3AB	1000BASE-T	X	X	X	X
IEEE 802.3AE	10G Ethernet	X	X	X	X
IEEE 802.3U	100BASE-TX, 100BASE-T4 100BASE-FX Fast Ethernet at 100 Mbps with Auto-Negotiation	X	X	X	X
IEEE 802.3X	Flow Control	X	X	X	X
IEEE 802.3Z	1000BASE-X Gigabit Ethernet over fiber optic at 1 Gbps	X	X	X	X
IEEE 802.3AD	LAG-MIB	X	X	X	X

IEEE standard number	IEEE standard name	SLX 9150/9250	SLX 9540	SLX 9640	SLX 9740
IEEE 802.1Q	Virtual Bridged VLANs	X	X	X	X
IEEE 802.1D	MAC Bridges	X	X	X	X
IEEE 802.1W	Rapid Spanning Tree Protocol	X	X	X	X
IEEE 802.1S	Multiple Spanning Trees	X	X	X	X
IEEE 802.1AG	Connectivity Fault Management (CFM)	N/A	X	X	X
IEEE 8023.BA	100 Gigabit Ethernet	X	X	X	X
IEEE 802.1AB	Link Layer Discovery Protocol	X	X	X	X
IEEE 802.1X	Port-Based Network Access Control	X	X	X	X
IEEE 802.3AH	Ethernet in the First Mile Link OAM3	N/A	X	X	X
IEEE 8021	PAE-MIB	X	X	X	X
ITU-T G.8013/Y.1731	OAM mechanisms for Ethernet4	N/A	X	X	Y.1731 not supported for DM. SLM supported.
ITU-T G.8032	Ethernet Ring Protection	N/A	X	X	50ms protection switching not supported
MEF	MEF-SOAM-TC-MIB	X	X	X	X
MEF	MEF-SOAM-PM-MIB	X	X	X	X



Scalability Matrix

[SLX 9740 Scalability Matrix on page 29](#)

[SLX 9640 and 9540 Scalability Matrix on page 37](#)

[SLX 9150 and SLX 9250 Scalability Matrix on page 44](#)

SLX 9740 Scalability Matrix

Support Type	SLX 9740
LAYER 2 SWITCHING	
Number of Trunk Groups supported	77 groups for 1U (1 to 256 IDs) 153 groups for 2U (1 to 256 IDs) Tested: 44 groups
Number of Ports per Trunk Group	64
Maximum LACP Trunk threshold	64
Maximum number of MAC Addresses per Switch	600K (default profile) 190K (route profile)
Jumbo Frames	9216 bytes
Number of VLANs	4096
Maximum number of Spanning-Tree instances (RSTP)	RSTP is 1 instance only, RPVST/PVST 128, MSTP 32
Maximum number of bridge domains	4K
RSTP	
Max number of Spanning-Tree Instances	1 (RSTP is always 1 instance)
Maximum number of physical ports supported with STP/RSTP	Max number of front-end ports
MSTP	
Maximum Number of instances	32
Maximum number of VLANs per instance	4090
Maximum number of physical interfaces participating per instance	Max number of front-end ports
Maximum number of LAG interfaces participating per instance	Max number of allowed LAG; Tested: 44 POs
PVST	

Support Type	SLX 9740
Maximum number of VLANs	126
Maximum number of interfaces	Max number of front-end ports; (ports x vlans < = 2K)
Maximum number of instances	126
Maximum number of port-VLAN associations	2048
Multicast	
Maximum IGMPv2/v3 L3 entries	16K
L2 Multicast Cache	16K
IPv4 Software Multicast Cache for PIM/SM	20K
IPv4 Hardware Multicast Entries	20K
Maximum IGMP snooping vlans	500
Maximum IGMP snooping vlans (MCT)	500
Maximum static entry (IGMPv2) with uplink - IPv4	1000
Maximum static entry (IGMPv3) with uplink - IPv4	1000
Snoop Multicast IGMP Join rate per port	1000
Snoop Multicast IGMP leave rate per port	1000
IGMP Join rate (with PIM-SM)	4000
IGMP Leave rate (with PIM-SM)	4000
PIM SM Maximum local receivers (IGMP)	4000
PIM SM Maximum OIFs per system	64000
PIM SM Maximum OIFs per S,G	128
Maximum number of VLAN replication per entry	128
Maximum number of multicast VRFs	50
Maximum number of IGMP groups per system	16K
Maximum number of IGMP groups per interface	128
Maximum number of IGMP OIF per system	8000
Maximum number of Mcast Prefix advertised by a RP	250
Maximum number of BSR RP per mcast domain	56; Tested: 4
Maximum number of Static RP per system	56; Tested: 4
Maximum number of RPset x RP per system	56; Tested: 4
Maximum number of PIM Anycast RPs per system	56; Tested: 4
Maximum number of Anycast RP peers per system	8; Tested: 4
PIM Fast Hello	Min Hello: 1 Sec; Neighbor Removal: 3 Sec
Multicast ECMP Paths	32
LAYER 3 FEATURES - IPv4	

Support Type	SLX 9740
Maximum number of IP interfaces per system (IPv4, IPv6)	8K
Maximum number of Virtual Ethernet interfaces per system	8K
Maximum number of ARP entries	Default Profile: 102k; Route Profile: 95K
Maximum number of ND entries	Default Profile: 102k; Route Profile: 95K
Maximum number of Static ARP entries	Default Profile: 102k; Route Profile: 95K
Maximum ARP/ND suppression scale	8K
Maximum number of directly connected host routes (or IP next-hops)	64K; Tested: 52K
Number of possible secondary IP Addresses	255
Maximum number of Loopback interfaces	255
Maximum number of OSPF areas (Per VRF)	200
Number of OSPF routers in a single area	200
Number of OSPF adjacencies	200
Maximum Number of OSPF Routes	100K
Maximum Number of Static Route Entries	32K
Maximum BGP Peer-Groups	250
Maximum BGP Routes in RIB	9M IN, 14M OUT
BGP Peers (IPv4 and IPv6 concurrent)	2400
Maximum Number of IS-IS Routes	25K
Number of IS-IS adjacencies	Broadcast: 255; P2P: 1024
Number of IS-IS LSPs	255
Maximum Number of IPv4 Routes	Default profile: 2M; Route profile: 3.5M
Maximum VE per system	8K
Maximum VRFs per system (BGP VRF IPv4/IPv6)	1024
Maximum VRFs per system (OSPF VRF IPv4/IPv6)	1024
Maximum VRFs per system (Static VRF IPv4/IPv6)	1024
Number of IS-IS routers in a level	255
ECMP Support	32K
Number of VRRP/VRRPe Instances per system (IPv4, IPv6)	1K
Number of VRRP instances per IP interface	10
Number of VRRP/VRRPe instances with Time Scale	128
Maximum Number of GRE Tunnels	1024

Support Type	SLX 9740
Maximum IS-IS interfaces	Broadcast: 255; P2P: 1024
PBR Over GRE	NA
ICMP Error Message handling	5000
LAYER 3 FEATURES - IPv6	
Maximum Number of IPv6 Static Route Entries	32K
Maximum Number of IPv6 Routes	Default profile: 2M; Route profile: 3.5M
Maximum Number of OSPFv3 Routes	64K
Maximum Number of OSPFv3 Interfaces	256
Maximum Number of OSPFv3 Neighbors	256
Maximum Number of OSPFv3 area	10
Maximum Number of BGPv6 Routes in the RIB	Same as IPv4
Maximum Number of BGPv6 Neighbors	2400
BGP Flow Spec	
Maximum Number of Local Flowspec rules alone	1K
Maximum Number of Remote Flow spec rules alone	1K
Maximum Number of Local and remote Flow spec rules together	1K
BGP large-community	
Maximum number of large-community that can be added/replaced/deleted for incoming route updates(NLRI) using set directive.	32
Maximum number of large-community standard/extended ACL type	1024 rules per list. Max Seq # is 65535
Maximum number of large-community ACL that can be matched in route-map	32
Maximum number of large-community attributes that be received per route update (including in bound set large community)	64
MPLS	
Maximum MPLS labels	15K
Maximum Label stacking depth	3
Maximum Target LDP sessions	100
Maximum ingress	5K
Maximum transit LSPs	20K cross-connects
MPLS tunnels	5K
Maximum VLLs per system (with MCT)	500
Maximum VPLSs per system (with MCT)	8K

Support Type	SLX 9740
Maximum endpoints per VLL per system	1K
Maximum endpoints per VPLS per system (non-MCT, MCT)	20K
Maximum VPLS MACs per system (max vpls mac table)	Default Profile: 600K; Route Profile: 190K
Total VPLS VC labels per system	8K
Maximum Routes per VRF/VPN	Default Profile: 2M; Route Profile: 3M
Maximum MPLS VPNs (IPv4) per system	512
Maximum MPLS VPNs (IPv6) per system	512
Maximum Adaptive LSP (ingress/egress)	5K
Maximum FRR instances	5K Facility or 2K 1-to-1 detour
Maximum number of VPLS LSP load balance	16
Maximum number of LDP ECMP path	16
RSVP LSP History support	Max 32 events per LSP at Ingress router
Maximum number of Auto-bandwidth templates	100
Maximum number of recorded samples per Auto-	1500
Single-hop LSP Accounting	5K
Maximum number of VPLS instance with IPv4/IPv6 VE VRF support (MCT)	8K
Maximum number of Bypass LSP per system	512
Maximum number of LDP session	100
Maximum number of LDP FEC	5K
RATE LIMITING AND TRAFFIC POLICING FEATURES	
Granularity	22kbps
Number of Rate-limiters/Traffic-policers Per System	1k/32k
ACL	
Ingress IPv4 ACLs (ACLs, PBR, RACL, RL, RACL-RL, v4Broadcast ACL) per system	4K
Ingress IPv6 ACLs (ACLs, PBR, RL, RACL, RACL-RL)	2K
Ingress MAC ACL	2K
Egress L2 ACL	1K
Egress L3 ACL	1K
Named L2 ACL statements	2K
Maximum number of IP receive ACLS	200
Maximum number of IPv6 receive ACLs	50

Support Type	SLX 9740
Policy based routing (PBR)	4K
IPv6 PBR	2K
Max number of configurable PBR route maps	200
Max number of configurable stanzas in PBR	1024
MULTI-CHASSIS TRUNKING (MCT support)	
Number of vPorts – (# of VLANs) times (# of ports)	100k
Maximum MCT Clients	72(1U) (72 x 25G/10G+ 4x100G possibility) 144(2U) (144*25G/10G + 8x100G possibility)
Maximum of VLANs for ICL	All VLANs
Maximum number of L2 / unified bridging instances (VPLS/EVPN, L2, VXLAN) with MCT and BUM RL	4k
Maximum number endpoint in MCT for L2/ bridging (VPLS, EVPN, L2, VXLAN)	Breakdown for each endpoint type *100k AC LIFs
MCT VPLS	*8K PW instances total; *8K total VNI (including 4K for vlan and 4K for BD); *100K for all types of services.
MCT VLL	500
Maximum number of MAC addr for MCT	Default Profile: 256K; Route Profile: 190K; Tested: 250K
SOFTWARE DEFINED NETWORKING/OpenFlow	
Maximum number of flows per system	Not supported
Maximum number of L2 mode flows	Not supported
Maximum number of L3 mode flows	Not supported
Maximum number of L23 mode flows	Not supported
Maximum number of L2, L3, L23 mode flows with flow statistics	Not supported
Maximum number of controller connections	Not supported
Maximum flows with wildcard match	Not supported
Maximum protected VLANs per hybrid port	Not supported
Maximum protected VLANs per system	Not supported
OAM	
BFD min timer	200ms
Max BFD sessions	250 (16 multihop sessions)
802.lag sessions	4000
Y.1731 SLM/DM sessions	N/A
EVPN-VXLAN Scaling (IP Fabric)	
VxLAN Tunnel (e.g. ToR, DCI, hybrid cloud)	1K

Support Type	SLX 9740
L2 VNI (Bridge Domains)	8K
L3 VNI	1024
Maximum # VRF	1024
Layer 2	
Maximum # of VLANs	4K
Maximum # of Bridge Domains	4K
Maximum # of MAC entries	Default Profile: 600K non-MCT(256K MCT/EVPN); Route Profile: 190K
Maximum # VNI	8K
Layer 3	
Maximum # of BGP peers (IPv4+IPv6)	256 (V4 only)
Maximum # of VE	8K
Maximum # of VRF	1024
Maximum number of BD VE	4K
ND entries	102K
SAG per switch	8K
SAG address per interface	64
BGP EVPN IPv4 and IPv6 route (HW) and (SW)	HW: 2M; SW: 5M
BGP EVPN macIP routes (HW) and (SW)	HW: 102K ARP/102K ND; SW: 2M
BGP EVPN mac routes (SW)	HW:250K; SW: 2M
MVRP	
Maximum no. of dynamic VLANs advertised over MVRP (with/without MCT)	Not supported
Maximum no. of MACs on DUT on 2K dynamic VLANs (with/without MCT)	Not supported
QoS	
Maximum number of traffic classes	8
On chip buffers per ASIC (shared between ingress and egress)	Ingress OCB: 16MB per core (32MB total); Ingress DRAM Buffer: 8GB; Egress OCB: 48MB per core (96MB total)
Max schedulers on system	40
Max shapers on system	40
POLICY-MAP MAX config on SYSTEM (Created in SW globally)	1K
Class-map max config per policy	4K
Policy-map max config per interface	1
Service-policy per interface	1 per direction

Support Type	SLX 9740
Class-map max config on system (created in SW globally)	32k
Default class-map per policy	1
Match ACL class-map per policy	4k non default class map per policy map
Port-based In service-policy on system	# of port supported
Match ACL class in service-policy on system	4K non default class map per policy map
Port-based out service policy on system	# of ports supported
Storm control (BUM traffic policy)	3
Maximum number of ACL tables per class	1
Number of policers (HW supported)	16K
Maximum unique RED profiles configured (SW)	256
Maximum unique RED profiles configured (HW)	256
PCP > TC, DSP > TC	400, 400
DSCP > DSCP	400
DSCP > Cos, TC > CoS	400, 1
TC > DSCP	N/A
Maximum per-port priority pause level	Not supported
QoS priority queues (per port)	8
SNMP	
Maximum communities	256
Maximum contexts	256
Maximum community maps	256
Maximum SNMP v3 users	10
Maximum groups	10
Maximum views	10
Maximum v1/v2c trap hosts	12
Maximum v3 trap hosts	6

SLX 9640 and 9540 Scalability Matrix

Support type	SLX 9640	SLX 9540
LAYER 2 SWITCHING		
Number of Trunk Groups supported	Default profile - 256 groups with 64 Ports Tested: Total 60 LAG as follows: 8 LAGs (1/10GbE) with breakout, 10 LAGs (1 GbE) w/o breakout, 38 LAGs (1/10GbE) w/o breakout, 2 LAGs (40GbE), 2 LAGs (100GbE)	Default profile - 256 groups with 64 Ports Tested: Total 53 LAG as follows: 24 LAGs (1/10GbE) with breakout, 2 LAGs (1 GbE) w/o breakout, 22 LAGs (1/10GbE) w/o breakout, 2 LAGs (40GbE), 3 LAGs (100GbE)
Number of Ports per Trunk Group	64 Tested: 32 (1/10GbE)	64 Tested: 48 (1/10GbE)
Maximum LACP Trunk threshold	64	64
Maximum number of MAC Addresses per Switch	750K	750K
Jumbo Frames	9216 bytes	9216 bytes
Number of VLANs	4096	4096
Maximum number of Spanning-Tree instances (RSTP)	RSTP is 1 instance only,RPVST/PVST 128, MSTP 32	RSTP is 1 instance only,RPVST/PVST 128, MSTP 32
Maximum number of bridge domains	4K	4K
Maximum IGMPv2/v3 L3 entries	16K	16K
L2 Multicast Cache	16K	16K
IPv4 Software Multicast Cache for PIM/SM	20K	20K
IPv4 Hardware Multicast Entries	20K	20K
Maximum IGMP snooping vlans	500	500
Maximum IGMP snooping vlans (MCT)	500	500
Maximum static entry (IGMPv2) with uplink - IPv4	1000	1000
Maximum static entry (IGMPv3) with uplink - IPv4	1000	1000
Snoop Multicast IGMP Join rate per port	1000	1000
Snoop Multicast IGMP leave rate per port	1000	1000
IGMP Join rate (with PIM-SM)	4000	4000
IGMP Leave rate (with PIM-SM)	4000	4000

Support type	SLX 9640	SLX 9540
PIM SM Maximum local receivers (IGMP)	4000	4000
PIM SM Maximum OIFs per system	64000	64000
PIM SM Maximum OIFs per S,G	128	128
Maximum number of VLAN replication per entry	128	128
Maximum number of multicast VRFs	50	50
Maximum number of IGMP groups per system	16K	16K
Maximum number of IGMP groups per interface	128	128
Maximum number of IGMP OIF per system	8000	8000
Maximum number of Mcast Prefix advertised by a RP	250	250
Maximum number of BSR RP per mcast domain	56	56
Maximum number of Static RP per system	56	56
Maximum number of RPset x RP per system	56	56
Maximum number of PIM Anycast RPs per system	56	56
Maximum number of Anycast RP peers per system	8	8
PIM Fast Hello	Min Hello : 1 Sec, Neighbor Removal : 3 Sec	Min Hello : 1 Sec, Neighbor Removal : 3 Sec
Multicast ECMP Paths	32	32
LAYER 3 FEATURES - IPv4		
Maximum number of IP interfaces per system (ipv4, ipv6)	4090	4090
Maximum number of Virtual Ethernet interfaces per system	4090	4090
Maximum number of ARP entries	96K (Tested 98304)	96K (Tested 98304)
Maximum number of ND entries	32K	32K
Maximum number of Static ARP entries	96K (Tested 98304)	96K (Tested 98304)
Maximum number of directly connected host routes (or IP Next-hops)	2K	2K

Support type	SLX 9640	SLX 9540
Number of possible secondary IP Addresses	255	255
Maximum number of Loopback interfaces	255	255
Maximum number of OSPF areas (Per VRF)	200	200
Number of OSPF routers in a single area	200	200
Number of OSPF adjacencies	200	200
Maximum Number of OSPF Routes	100K	100K
Maximum Number of Static Route Entries	25K	25K
Maximum BGP Peer-Groups	250	250
Maximum BGP Routes in RIB	9M IN, 14M OUT	9M IN, 14M OUT
BGP Peers (IPv4 and IPv6 concurrent)	2400	2400
Maximum Number of IS-IS Routes	25K	25K
Number of IS-IS adjacencies	Broadcast : 255 P2P : 1024	Broadcast : 255 P2P : 1024
Number of IS-IS LSPs	255	255
Maximum Number of IPv4 Routes	4M	1M (with compression)
Maximum number of routes in hardware (IPv4 and IPv6 concurrent)	Default Profile : 4M IPv4 and 256K IPv6 routes V4-V6 Profile : 4M IPv4, 700K IPv6 routes IPv6-route Profile : 1M IPv4, 1M IPv6 routes	Optiscale Profile LPM : 256K (Routes except /23, /24 and /32) LEM : 750K (Routes with /23, /24 and /32)
Maximum VE per system	4K	4K
Maximum VRFs per system (BGP VRF IPv4/IPv6)	1024 (Tested : 512)	1024 (Tested : 512)
Maximum VRFs per system (OSPF VRF IPv4/IPv6)	1024	1024
Maximum VRFs per system (Static VRF IPv4/IPv6)	1024	1024
Number of IS-IS routers in a level	255	255
ECMP Support	64	64
Number of VRRP/VRRPe Instances per system (IPv4, IPv6)	1K	1K
Number of VRRP instances per IP interface	16	16

Support type	SLX 9640	SLX 9540
Number of VRRP/VRRPe instances with Time Scale	128	128
Maximum Number of GRE Tunnels	256	256
Maximum IS-IS interfaces	Broadcast : 255 P2P : 1024	Broadcast : 255 P2P : 1024
Policy Based Routing (PBR)	64 Route maps per PBR	64 Route maps per PBR
PBR Over GRE	NA	NA
ICMP Error Message handling	5000	5000
LAYER 3 FEATURES - IPv6		
Maximum Number of IPv6 Static Route Entries	32K	32K
Maximum Number of IPv6 Routes	Default Profile : 256K routes V4-V6 Profile : 700K routes IPv6-route Profile : 1M Routes	Optiscale Profile LPM : 64K (Routes except /47 and /48) LEM : 180K (Routes with /47 and /48)
Maximum Number of OSPFv3 Routes	64K	64K
Maximum Number of OSPFv3 Interfaces	256	256
Maximum Number of OSPFv3 Neighbors	256	256
Maximum Number of OSPFv3 area	10	10
Maximum Number of BGPv6 Routes in the RIB	64K	64K
Maximum Number of BGPv6 Neighbors	2400	2400
IPv6 PBR	200 route maps per PBR	200 route maps per PBR
BGP Flow Spec (*MAX TCAM entries are 6K shared across all L3 user ACLS)		
Maximum Number of Local Flowspec rules alone *	1K	1K
Maximum Number of Remote Flow spec rules alone *	1K	1K
Maximum Number of Local and remote Flow spec rules together *	1K	1K
BGP large-community		

Support type	SLX 9640	SLX 9540
Maximum number of large-community that can be added/replaced/deleted for incoming route updates(NLRI) using set directive.	32	32
Maximum number of large-community standard/extended Acl type	1024 rules per list. Max Seq # is 65535	1024 rules per list. Max Seq # is 65535
Maximum number of large-community ACL that can be matched in route-map	32	32
Maximum number of large-community attributes that be received per route update (including in bound set large community)	64	64
MPLS		
Maximum MPLS labels	15K	15K
Maximum Label stacking depth	3	3
Maximum Target LDP sessions	100	100
Maximum ingress	5K	5K
Maximum transit LSPs	20K cross-connects	20K cross-connects
Maximum VLLs per system (with MCT)	2600	2600
Maximum VPLSs per system (with MCT)	2600	2600
Maximum endpoints per VLL per system	8K	8K
Maximum endpoints per VPLS per system (non MCT, MCT)	20K	20K
Maximum VPLSs per system (max vpls mac table)	750K	750K
Total VPLS VC labels per system	8K	8K
Maximum Routes per VRF/VPN	256K	256K
Maximum MPLS VPNs (IPv4) per system	512	512
Maximum MPLS VPNs (IPv6) per system	512	512
Maximum Adaptive LSP (ingress/egress)	20K	20K
Maximum FRR instances	5K Facility or 2K 1-to-1 detour	5K Facility or 2K 1-to-1 detour
Maximum number of VPLS LSP load balance	16	16

Support type	SLX 9640	SLX 9540
Maximum number of LDP ECMP path	16	16
RSVP LSP History support	Max 32 events per LSP at Ingress router	Max 32 events per LSP at Ingress router
Maximum number of Auto-bandwidth templates	100	100
Maximum number of recorded samples per Auto-	1500	1500
Single-hop LSP Accounting	5K	5K
Maximum number of VPLS instance with IPv4/IPv6 VE VRF support (MCT)	2600	2600
Maximum number of Bypass LSP per system	512	512
Maximum number of LDP session	100	100
Maximum number of LDP FEC	5K	5K
RATE LIMITING AND TRAFFIC POLICING FEATURES		
Granularity	22kbps	22kbps
Number of Rate-limiters/Traffic-policers Per System	1k/32k	1k/32k
AVAILABILITY		
ACL		
Maximum shared IPv4 ACLs across “all ports per tower” and “per system”	Per tower- 6K IPv4 ACE CAM sharing - 10K IPv4 AC	Per tower- 6K IPv4 ACE CAM sharing - 10K IPv4 AC
Maximum shared IPv6 ACLs across “all ports per tower” and “per system”	Per tower- 6K IPv4 ACE CAM sharing - 10K IPv4 ACE	Per tower- 6K IPv4 ACE CAM sharing - 10K IPv4 ACE
Maximum shared L2 ACLs across “all ports per tower” and “per system”	Per tower - 2K L2 ACE CAM sharing- 2K L2 ACE	Per tower - 2K L2 ACE CAM sharing- 2K L2 ACE
Named L2 ACL statements	2k	2k
Maximum number of IP receive ACLs	200	200
Maximum number of IPv6 receive ACLs	50	50
MULTI-CHASSIS TRUNKING (vLAG support)		
Number of vPorts - (# of VLANs) times (# of ports)	100k	100k
Number of VLANs for logical port (single port or LAG)	225	225

Support type	SLX 9640	SLX 9540
Maximum MCT Clients	72 (24 10G ports and 48 25G breakout ports)	40
Maximum of VLANs for ICL	Not applicable with SLX MCT design	Not applicable with SLX MCT design
Maximum number of L2 / unified bridging instances (VPLS/EVPN, L2, VXLAN) with MCT and BUM RL	4k	4k
Maximum number endpoint in MCT for L2/bridging (VPLS, EVPN, L2, VXLAN)	Breakdown for each endpoint types *80K AC LIFs *8K PW instances total *8K total VNI (including 4K for VLAN and 4K for BD) *100K for all types of services.	Breakdown for each endpoint types *80K AC LIFs *8K PW instances total *8K total VNI (including 4K for VLAN and 4K for BD) *100K for all types of services.
Maximum number of MAC addr for MCT	180K	180K
VXLAN /IP Fabric		
NVA (See Feature Tab)		
Statistics		
OAM		
BFD min timer	200msec (36 sessions multihop)	200msec (36 sessions multihop)
802.lag sessions	4000	4000
Y.1731 SLM/DM sessions	100	100
EVPN-VXLAN Scaling (IP Fabric)		
VxLAN Tunnel (e.g. ToR, DCI, hybrid cloud)	512	512
L2 VNI (Bridge Domains)	4k	4k
L3 VNI	512	512
Maximum # VRF	512	512
Layer 2		
Maximum # of VLANs	4K	4K
Maximum # of Bridge Domains	4K	4K
Maximum # of MAC entries	168K	168K
Maximum # of ARP entries	NS	NS
Maximum # VNI	256 (V4 Only)	256 (V4 Only)
Layer 3		
Maximum # of BGP peers (IPv4+IPv6)	256 (V4 only)	256 (V4 only)
Maximum # of VE	4K	4K

Support type	SLX 9640	SLX 9540
Maximum # of VRF	512	512
MVRP		
Maximum no. of dynamic VLANs advertised over MVRP (with/without MCT)		2K
Maximum no. of MACs on DUT on 2K dynamic VLANs (with/without MCT)		250K
SNMP		
Maximum communities	256	256
Maximum contexts	256	256
Maximum community maps	256	256
Maximum SNMP v3 users	10	10
Maximum groups	10	10
Maximum views	10	10
Maximum v1/v2c trap hosts	12	12
Maximum v3 trap hosts	6	6

SLX 9150 and SLX 9250 Scalability Matrix

Support Type		SLX 9150	SLX 9250
LAYER 2 SWITCHING			
	Number of Trunk Groups supported	Default profile - 80 groups(1 to 256 ID's)	Default profile - 128 groups(1 to 256 ID's)
	Number of Ports per Trunk Group	64	64
	Max LACP Trunk threshold	64	64
LAYER 2 SWITCHING			
	max. number of MAC Addresses per Switch	64K	64K
	Jumbo Frames	9216 bytes	9216 bytes
	Number of VLANs	4K	4K
	Max number of bridge domains	2K	2K
	Maximum Number of port-vlan associations	15.5K	15.5K
RSTP	Max Number of Spanning-Tree instances (RSTP)	RSTP is 1 instance only,	RSTP is 1 instance only,
	Maximum Number of physical ports supported with STP/RSTP	Equal to max number of front end ports	Equal to max number of front end ports

Support Type		SLX 9150	SLX 9250
MSTP	Maximum Number of instances	32	32
	Maximum Number of VLANs per instance	4090	4090
	Maximum Number of physical interfaces participating per instance	Equal to max number of front end ports	Equal to max number of front end ports
	Maximum Number of LAG interfaces participating per instance	64	128
PVST	Maximum number of VLANs	254	254
	Maximum number of interfaces	Equal to max number of front end ports	Equal to max number of front end ports
	Maximum number of instance	254	254
	Max number of port-vlan associations	2032	2032
MULTICAST			
	IPv4 Software Multicast Cache for PIM/SM	8k	8K
	IPv4 Hardware Multicast Entries	8K	8K
	Max (IGMP/MLD) snooping vlans	512	512
	Max (IGMP/MLD) snooping vlans (MCT)	512	512
	Max static entry (IGMPv2 and MLDv1) with uplink - IPv4	8K	8K
	Snoop Multicast IGMP Join rate per port	500/s	500/s
	Snoop Multicast IGMP leave rate per port	500/s	500/s
	PIM SM Max OIF's per system	15.5K(Max VLAN-Port Combination)	15.5K(Max VLAN-Port Combination)
	PIM SM Max OIF's per entry	128	128
	PIM Join/Prune Rate	1500/s	1500/s
	Max number of vlan replication per entry	128	128
	Max number of multicast VRFs	50	50
	Max number of IGMP/MLD groups per interface	No Restriction	No Restriction
	Max number of IGMP/MLD OIF per entry	128	128
	Max number of Mcast Prefix advertised by a RP	250	250

Support Type		SLX 9150	SLX 9250
	Max number of BSR RP per mcast domain	56	56
	Max number of Static RP per system	56	56
	Max number of RPset x RP per system	56	56
	Max number of PIM Anycast RPs per system	56	56
	Max number of Anycast RP peers per system	8	8
	Multicast ECMP Paths	64	64
LAYER 3 FEATURES - IPv4			
	Max number of IP interfaces per system (ipv4, ipv6)	4K	4K
	Max number of Virtual Ethernet interfaces per system	4K	4K
	Max number of ARP entries	47K	47K
	Max number of ND entries	33K	33K
	Max number of Static ARP entries	47K	47K
	Max number of IP Next-hops	48K	48K
	Number of possible secondary IP Addresses	254	254
	Max. number of Loopback interfaces	255	255
	Maximum number of OSPF areas (Per VRF)	200	200
	Number of OSPF routers in a single area	200	200
	Maximum Number of OSPF Routes	64K	64K
	Maximum Number of Static Route Entries	24K	24K
	Max BGP Peer-Groups	250	250
	Max BGP Routes in RIB	3.25M (in + out)	3.25M (in + out)
	BGP Peers (IPv4 and IPv6 concurrent)	512	512
	Maximum Number of IS-IS Routes	25K	25K
	Number of - adjacencies	Broadcast : 255 P2P : 1024	Broadcast : 255 P2P : 1024
	Number of IS-IS LSP's	255	255

Support Type		SLX 9150	SLX 9250
	Number of IS-IS routers in a level	255	255
	Max IS-IS interfaces	Broadcast:255 P2P: 1024	Broadcast:255 P2P: 1024
	Maximum Number of IPv4 Routes	128K	128K
	Maximum number of routes in hardware (IPv4 and IPv6 concurrent)	128K v4 or 10K v6	128K v4 or 10K v6
	Max VRFs per system (BGP VRF IPv4/IPv6)	1K	1K
	Max VRFs per system (OSPF VRF IPv4/IPv6)	1K	1K
	Max VRFs per system (Static VRF IPv4/IPv6)	1K	1K
	ECMP Support	16K	16K
	Max number of ECMP Paths	64	64
	Number of VRRP/VRRPe Instances per system (IPv4, IPv6)	255	255
	Number of VRRP instances per IP interface	16	16
	ICMP Error Message handling	Supported	Supported
LAYER 3 FEATURES - IPv6			
	Maximum Number of IPv6 Static Route Entries	10K	10K
	Maximum Number of IPv6 Routes	10K	10K
	Maximum Number of OSPFv3 Routes	64K	64K
	Maximum Number of OSPFv3 Interfaces	200	200
	Maximum number of OSPFv3 Neighbors	200	200
	Maximum number of OSPFv3 area per VRF	10	10
	Maximum Number of BGPv6 Routes in the RIB	Same as IPv4	Same as IPv4
	Maximum Number of BGPv6 Neighbors	512	512
RATE LIMITING AND TRAFFIC POLICING FEATURES			
	Granularity	1kbps	1kbps

Support Type		SLX 9150	SLX 9250
	Number of Rate-limiters/Traffic-policers Per System	8k in SW	8k in SW
ACL			
	Max shared IPv4 ACLs per system	2K ACL groups with 2K ACL statements each(SW) IPv4 ACL DB Standard Ingress Count :767/768, Egress Count 245/246 .Extended Ingress Count :767/768 Egress Count245/246. Note: Same DB is shared by PBR, ACL Ratelimiters and RACL)	2K ACL groups with 2K ACL statements each(SW) IPv4 ACL DB Standard Ingress Count :767/768, Egress Count 245/246 .Extended Ingress Count :767/768 Egress Count245/246. Note: Same DB is shared by PBR, ACL Ratelimiters and RACL)
	Max shared IPv6 ACLs per system	2K ACL groups with 2K ACL statements each(SW) IPv6 ACL DB Standard : 767/768. Extended :767/768 Note: (Same DB is shared by PBR, ACL Ratelimiters and RACL)	2K ACL groups with 2K ACL statements each(SW) IPv6 ACL DB Standard : 767/768. Extended :767/768 Note: (Same DB is shared by PBR, ACL Ratelimiters and RACL)
	Max shared L2 ACLs per system	2K ACL groups with 2K ACL statements each(SW) MAC ACL DB: Standard Ingress Count: 501/502, Egress Count: 245/246.Extended Ingress Count: 501/502, Egress Count245/246. Note: (L2 Rate limiter also shared same DB)	2K ACL groups with 2K ACL statements each(SW) MAC ACL DB: Standard Ingress Count: 501/502, Egress Count: 245/246.Extended Ingress Count: 501/502, Egress Count245/246. Note: (L2 Rate limiter also shared same DB)
	Max number of IP receive ACLs	Same as Ipv4 ACL	Same as Ipv4 ACL
	Max number of IPv6 receive ACLs	Same as Ipv6 ACL	Same as Ipv6 ACL
	Policy Based Routing (PBR)	767 (TCAM entries shared with v4 ACL)	767 (TCAM entries shared with v4 ACL)
	IPv6 PBR	767 (TCAM entries shared with v6 ACL)	767 (TCAM entries shared with v6 ACL)
	Max Number of configurable PBR route maps	200	200
	Max Number of configurable stanzas in PBR	1024	1024
Multi-Chassis Trunking (vLAG support)			
	Number of vPorts - (# of VLANs) times (# of ports)	15.5K	15.5K
	Number of VLANs for logical port (single port or LAG)	4K (4K VLAN OR 2K BD)	4K (4K VLAN OR 2K BD)

Support Type		SLX 9150	SLX 9250
	Max MCT Clients	62	126
	Max of VLANs for ICL	4K VLAN + 2K BD (VxLAN Tunnels)	4K VLAN + 2K BD (VxLAN Tunnels)
	Max number of L2 / unified bridging instances (VPLS, EVPN, L2, VXLAN) with MCT and BUM RL	4K VLAN + 1K BD(EVPN-VXLAN) VPLS not supported	4K VLAN + 1K BD(EVPN-VXLAN) VPLS not supported
	Max number endpoint in MCT for L2/bridging (VPLS, EVPN, L2, VXLAN)	VPLS not supported 6K VXLAN VNIs L2-15K	VPLS not supported 6K VXLAN VNIs L2-15K
	Max number of MAC addr for MCT	64K	64K
EVPN-VXLAN Scaling (IP Fabric)			
	VxLAN Tunnel (e.g ToR, DCI, hybrid cloud)	126	126
	L2 VNI (Bridge Domains)	4KVLAN+2KBD	4KVLAN+2KBD
	L3 VNI	128	128
Layer 2	Max # of VLAN's	4K	4K
	Max # of Bridge Domains	2K	2K
	Max # of MAC entries	64K	64K
	Max # of ARP entries	47K	47K
	Max # VNI	4K+2K+128	4K+2K+128
Layer 3	Max # of BGP peers (IPv4+IPv6)	256	256
	Max # of VE	4k	4k
	Max # of BD VE	2K	2K
	Max # of VRF	128	128
	ND entries	34k	34k
	SAG per switch	4K	4K
	SAG address per interface	64	64
	BGP EVPN IPv4 and IPv6 route (HW) and (SW)	HW IPv4: 128k, HW IPV6: 10k SW: 2M	HW IPv4: 128k, HW IPV6: 10k SW: 2M
	BGP EVPN macIP routes (HW) and (SW)	HW: 47k SW: 2M	HW: 47k SW: 2M
	BGP EVPN mac routes (SW)	HW: 47k SW: 2M	HW: 47k SW: 2M
QoS			
	Maximum Number of Traffic Classes	8	8

Support Type		SLX 9150	SLX 9250
	On chip buffers per ASIC (shared between ingress and egress)	32MB	32MB
	Max schedulers on SYSTEM	80	128
	Max Shapers on System	80	128
	POLICY-MAP MAX config on SYSTEM (Created in SW globally)	1K	1K
	CLASS-MAP MAX config per policy	4K	4K
	POLICY-MAP MAX config per interface	1	1
	SERVICE-POLICY - per interface	1 per direction	1 per direction
	CLASS-MAP MAX config on SYSTEM (Created in SW globally)	32k	32k
	DEFAULT CLASS-MAP per POLICY	1	1
	MATCH ACL CLASS-MAP per POLICY	4k non default class map per policymap	4k non default class map per policymap
	PORT-BASED IN service-policy on SYSTEM	64	128
	MATCH ACL CLASS IN service-policy on SYSTEM	4K non default-class map per policy-map	4K non default-class map per policy-map
	PORT-BASED IN service-policy on SYSTEM	64	128
	STORM-CONTROL (BUM traffic policy)	3	3
	Maximum number of ACL table per CLASS	1	1
	Number of Policers	1024	1024
	Maximum unique RED profiles configured (SW)	120	120
	Maximum unique RED profiles configured (HW)	128	128
	PCP->TC, DSCP->TC	61	61
	DSCP->DSCP	10	10
	DSCP->CoS, TC->CoS	12	12
	TC->DSCP	NA	NA
	Maximum per-port priority pause level	Pause and PFC N/A in Bosch	Pause and PFC N/A in Bosch
	QoS priority queues (per port)	8	8

Support Type		SLX 9150	SLX 9250
SNMP			
	Maximum communities	256	256
	Maximum contexts	256	256
	Maximum community maps	256	256
	Maximum SNMP v3 users	10	10
	Maximum groups	10	10
	Maximum views	10	10
	Maximum v1/v2c trap hosts	12	12
	Maximum v3 trap hosts	6	6
Netconf			
	Max number of ssh concurrent sessions	16	16
Rest/Restconf			
	Max number of REST/Restconf sessions	30	30