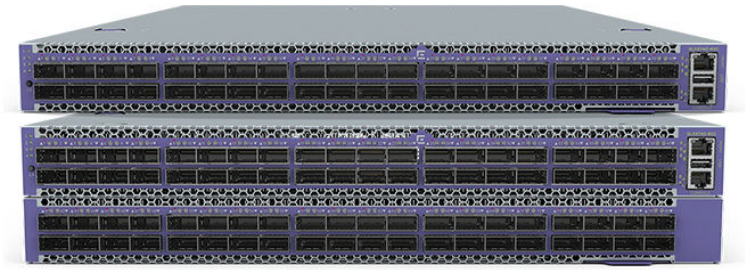
SLX 9740

Highlights

- BGP EVPN-VXLAN for Data Center Spine and Data Center Interconnect (DCI) networking
- Integrated Application Hosting to accommodate Extreme-provided or third-party, customer-specific applications
- Carrier-class MPLS, VXLAN, and Dual Stack IPv4/IPv6 functionality

Key Hardware Features

- Ultra-deep buffers of up to 16Gb for optimal handling of any network traffic and bursty traffic patterns
- 80 x 100GbE or 40 x 100GbE ports for ultra-high end data centers and cross connections for internet exchange points (IXP)
- Collapsed Campus Core with deep buffer and aggregation with fixed form factor switches equipped with 10/25/40/100GbE connections



BUILT ON BROADCOM

Next-Generation Fixed Form Router for Core Aggregation at Service Providers and Large Enterprise Data Centers

The SLX 9740 Series platforms are next-generation fixed-form routers designed for core aggregation at service providers and large enterprise data centers. They are the industry's most powerful compact deep buffer dual stack IPv4/IPv6 internet border router, providing a cost-efficient solution that is purpose-built for the most demanding service provider and enterprise data centers and MAN/WAN applications. They operate as demarcation between enterprise networks and service provider networks (internet) where the ISP connections terminate. Basic requirements include support for full internet routing table, mainstream routing protocols BGP, OSPF and IS-IS, EVPN VxLAN, ACLs, BGP internet peering scale, MPLS, deep buffer, device management, and entry level DDoS protection.

The SLX 9740 features Integrated Application Hosting which support an open kernel-based virtual machine (KVM) environment which accommodates Extreme or third-party applications with complete isolation from the networking operating system. Options include the SLX 9740 (1U) with 40 x 100GbE ports and the SLX 9740 (2U) with 80 x 100 GbE ports to deliver cost-effective solutions to meet the business needs of enterprise and service provider customers.

Internet-Scale Routing Platform

The SLX 9740 is a flexible platform that delivers the scale and performance needed to address current and future network bandwidth, devices, and services growth. Powered by Extreme SLX-OS, the SLX 9740 provides carrier-class advanced features that leverage proven Extreme routing, MPLS, Carrier Ethernet, and VXLAN overlay technology deployed in demanding service provider, data center, and enterprise networks.

Ultra-Deep Buffers

The SLX 9740 is a deep buffering platform purpose-built for demanding service provider and enterprise networks. The SLX 9740-40C model features 8GB and the SLX 9740-80C features 16Gb of deep packet buffers.

Core Aggregation

SLX 9740 models are able to sit as an edge router above the data center network, consolidating on multiple layers with enterprise and co-location data centers. With the use of MPLS or Layer 3 protocols, the SLX 9740 links the data center gear to either another data center or the outside world. Multi-chassis trunking (MCT) provides dynamic flow-based load balancing to multiple network nodes, enabling resilient and high-performance networks.

Integrated Application Hosting

SLX 9740 Series models support Extreme's Integrated Application Hosting, which allows you to onboard applications without impacting switch performance. The 9740 can run VM-based applications alongside the switch OS, a flexible and open solution that enables the support of Extreme or third-party applications and tools directly on the router.

Flexible Border Routing Solution

The SLX 9740 feature a robust system architecture and versatile features set which includes IPv4, IPv6, and MPLS/VPLS combined with Carrier Ethernet 2.0 and OAM capabilities that enable flexible deployment. It supports true internet scale border routing solutions with support for a maximum of 3.5M IPv4/IPv6 unicast routes.

SLX 9740 Switch Specifications

Item	Extreme SLX 9740-80C	Extreme SLX 9740-40C
Maximum 100 GbE/40 GbE ports	80	40
Maximum 10/25 GbE	144 ports in breakout mode (36x4)	72 ports in breakout mode (18x4)
Switch fabric capacity (data rate, full duplex)	8.0 Tbps in each direction (front panel ports, 80x100 Gbps)	4.0 Tbps in each direction (front panel ports, 40x100 Gbps)
Forwarding capacity (data rate, full duplex)	4000 Mpps (packet size=284B)	2000 Mpps (packet size=284B)
Airflow	Front to back or back to front (orderable option)	Front to back or back to front (orderable option)
Fan module slots	4 (3+1 redundancy)	6 (5+1 redundancy)
Maximum AC power supply rating	1600 W	1600 W
Power Supplies Modular	1600 W AC/DC power supply (up to four PSUs)	1600 W AC/DC power supply (up to two PSUs)
Height	3.41 in / 8.66 cm	1.7 in / 4.31 cm
Width	17.72 in / 45.00 cm	17.72 in / 45.00 cm
Depth chassis only without cable management or fan handles	25.2 in / 64.00 cm	25.2 in / 64.00 cm
Weight Chassis	4 PS, 4 fans: 58.46 lb, 26.52 kg	2 PS, 6 fans: 29.98 lb, 13.60 kg
Weight Chassis	4 PS, 4 fans, rack mount kit (4 post): 64.99 lb, 29.48 kg	2 PS, 6 fans, rack mount kit (4 post): 36.24 lb, 16.44 kg
Weight Empty chassis (no PS, no fans)	45.46 lb, 20.62 kg, Fan: 0.71lb, 0.32 kg., PS: 2.54 lb, 1.15 kg	23.28 lb, 10.56 kg, Fan: 0.27 lb, 0.13 kg, PS: 2.54 lb, 1.15 kg
Port type	QSFP28 Port Configs: 80x100 GbE, 80x40 GbE, 144x25 GbE, 144x10 GbE	QSFP28 Port Configs: 40x100 GbE, 40x40 GbE, 72x25 GbE, 72x10 GbE
Packet buffers per switch	16 GB	8 GB
Operating conditions	Operating temperature and operating altitude for airflow front to back: 0°C to 40°C (32°F to 104°F) / 6.000 ft (1.800m)	
	Operating temperature and operating altitude for airflow back to front: 0°C to 25°C (32°F to 77°F) / 1.500 ft (457 m)	
	Storage temperature: -25°C to 55°C (-13°F to 131°F)	
	Relative humidity: 5% to 90%, at 40 °C (104°F), non-condensing	
	Storage humidity: 95% maximum relative humidity, non-condensing	
	Storage altitude: 15,000 ft (4,500 m) maximum	

Power and Heat Dissipation

	1600W AC PSU	1600W DC PSU
Dimensions	3.4 in x 1.58 in x 9.45 in 86.36 mm x 40.13 mm x 240.03 mm (WxHxD)	3.4 in x 1.58 in x 10.04 in 86.36 mm x 40.13 mm x 255.02 mm (WxHxD)
Weight	2.54 lb (1.15 kg)	2.54 lb (1.15 kg)

	1600W AC PSU	1600W DC PSU
Voltage Input Range	front to back: 90 to 264 VAC back to front: 180 to 264 VAC	+/-39 VDC to +/-72 VDC
Line Frequency Range	47 to 63 Hz	N/A
PSU Input Socket	IEC 320, C14	Amphenol Connector C10-747795 or similar

	SLX 9740-80C (Fans high, all ports 100% traffic, 4 PSU)	SLX 9740-40C (Fans high, all ports 100% traffic, 2 PSU)
Maximum Heat Dissipation	6592.26 BTU/hr	3524.74 BTU/hr
Maximum Power Dissipation	1932W	1033W

Acoustics

Sound Pressure	SLX 9740-40C (F-B)	SLX 9740-40C (B-F)	SLX 9740-80C (F-B)	SLX 9740-80C (B-F)
Front	57.3 dBA, re: 20 µPa	61.7 dBA, re: 20 µPa	61.3 dBA, re: 20 µPa	69 dBA, re: 20 µPa
Rear	60.2 dBA, re: 20 µPa	65.1 dBA, re: 20 µPa	65.2 dBA, re: 20 µPa	70.8 dBA, re: 20 µPa
Right	50.5 dBA, re: 20 µPa	54.9 dBA, re: 20 µPa	55.5 dBA, re: 20 µPa	62.9 dBA, re: 20 µPa
Left	51.9 dBA, re: 20 µPa	55.9 dBA, re: 20 µPa	55.9 dBA, re: 20 µPa	64 dBA, re: 20 µPa
Average	55 dBA, re: 20 µPa	59.4 dBA, re: 20 µPa	59.5 dBA, re: 20 µPa	66.7 dBA, re: 20 µPa

SLX 9740 Software Specifications

Item	SLX 9740 Default Profile	SLX 9740 Route Profile
Maximum MAC addresses	600,000	190,000
Maximum VLANs	4,096	4,096
Maximum ACLs (IPv4/IPv6/L2)	4,000 IPv4 / 2,000 IPv6 / 2,000 L2	4,000 IPv4 / 2,000 IPv6 / 2,000 L2
Maximum members in a standard LAG	64	64
Maximum number of MCT switches	2	2
Maximum number of Bridge Domains	4,000	4,000
Maximum IPv4 unicast routes	2,000,000	3,500,000
Maximum IPv6 unicast routes	2,000,000	3,500,000
Maximum IPv4 host routes (ARP entries)	102,000	95,000
Maximum IPv6 host routes - route scale	102,000	95,000
Maximum jumbo frame size	9,216 bytes	9,216 bytes
QoS priority queues (per port)	8	8

Product Specifications

IEEE Compliance

Ethernet

802.3-2005 CSMA/CD Access Method and Physical Layer Specifications
802.3ab 1000BASE-T
802.3ae 10Gigabit Ethernet
802.3u 100BASE-TX, 100BASE-T4, 100BASE-FX Fast Ethernet at 100 Mbps with Auto-Negotiation
802.3x Flow Control
802.3z 1000BASE-X Gigabit Ethernet over fiber optic at 1 Gbps
802.3ad Link Aggregation
802.1Q Virtual Bridged LANs
802.1D MAC Bridges
802.1w Rapid STP
802.1s Multiple Spanning Trees
802.1ag Connectivity Fault Management (CFM)
8023.bj 100 Gigabit Ethernet
802.1ab Link Layer Discovery Protocol
802.1x Port-Based Network Access Control
802.3ah Ethernet in the First Mile Link OAM3 ITU-T G.8013/Y.1731OAM mechanisms for Ethernet[1]
ITU-T G.8013/Y.1731 OAM mechanisms for Ethernet
G.8032

[1]Supported with Extreme SLX-OS 17r.1.0 1 and later software

RFC Compliance

For more information on the supported RFCs, visit the Extreme Documentation Portal. Navigate to the *Extreme SLX-OS Scale and Standards Matrix* document for the SLX-OS version you are using.

Environmental Regulatory Compliance

EU 2011/65/EU RoHS
EU 2012/19/EU WEEE
EU REACH - Regulation (EC) No 1907/2006 - Reporting
China RoHS - SJ/T11363-2006
Taiwan RoHS CNS 15663 (2013.7)

Regulatory and Safety

North American ITE

CAN/CSA C22.2 NO. 60950-1-01, CAN/CSA C22.2 NO. 62368-1-14
UL60950-1, UL 62368-1

European ITE

EN 60950-1
EN 62368-1
EN 60825-1 Class 1(Lasers Safety)
2014/35/EU Low Voltage Directive
ETS 300132-1 Equipment Requirements for AC Power Equipment Derived from DC Sources
ETS 300132-2 Equipment Requirements for DC Powered Equipment
ETS 300253 Facility Requirements
ETS 300253 Facility Requirements

International ITE

CB Report & Certificate per IEC 60950-1+ National Differences
CB Report & Certificate IEC 62368-1
AS/ NZS 60950-1(Australia/New Zealand)

EMI/ EMC Standards

North American EMC Standards

FCC CFR 47 part 15 Class A (USA)
ICES-003 Class A (Canada)

European EMC Standards

EN 55032 Class A
EN 55024
EN 55011
EN 61000-3-2: (Harmonics)
EN 61000-3-3 (Flicker)
EN 300386 (EMC Telecommunications)
2014/30/EU EMC Directive

International EMC Standards

CISPR 32 Class A (International Emissions)
AS/NZS CISPR32
CISPR 24 Class A (International Immunity)
IEC 61000-4-2/ EN 61000-4-2 Electrostatic Discharge, 8kV Contact, 16kV Air, Criteria B
IEC 61000-4-3/ EN 61000-4-3 Radiated Immunity 10V/m, Criteria A
IEC 61000-4-4 / EN 61000-4-4 Transient Burst , 2kV, Criteria B
IEC 61000-4-5/ EN 61000-4-5 Surge, 1kV L-L, 2kV L-G, Level 3 Criteria B
IEC 61000-4-6/ EN 61000-4-6 Conducted Immunity, 0.15-80 MHz, 10Vrms, 80%AM (1kHz) Criteria A
IEC/ EN 61000-4-11 Power Dips & Interruptions, >30%, 25 periods, Criteria C

Country Specific

VCCI Class A (Japan Emissions)
ACMA RCM (Australia Emissions)
CCC Mark
KCC Mark, EMC Approval (Korea)
BSMI (Taiwan)
Anatel (Brazil)
NoM (Mexico)
EAC (Russia, Belarus, Kazakhstan)

Physical Design and Mounting

19-inch rack mount supporting racks compliant with ANSI/EIA-310-D

Ordering Information

Part Number	Desription
SLX9740-40C	Extreme SLX-9740, base unit with 40x100GE/40GE capable QSFP28 ports, 2 unpopulated power supply slots, 6 unpopulated fan slots and a 4-post rack mount kit
SLX9740-40C-AC-F	Extreme SLX-9740 with front to back airflow, base unit with 40x100GE/40GE capable QSFP28 ports, 2 AC power supplies, 6 fan modules and a 4-post rack mount kit
SLX9740-40C-AC-R	Extreme SLX-9740 with back to front airflow, base unit with 40x100GE/40GE capable QSFP28 ports, 2 AC power supplies, 6 fan modules and a 4-post rack mount kit
SLX9740-80C	Extreme SLX-9740, base unit with 80x100GE/40GE capable QSFP28 ports, 4 AC unpopulated power supply slots, 4 unpopulated fan slots and a 4-post rack mount kit
SLX9740-80C-AC-F	Extreme SLX-9740 with front to back air flow, base unit with 80x100GE/40GE capable QSFP28 ports, 4 AC power supplies, 4 fan modules and a 4-post rack mount kit
SLX9740-80C-AC-R	Extreme SLX-9740 router with back to front air flow, base unit with 80x100GE/40GE capable QSFP28 ports, 4 AC power supplies, 4 fan modules and a 4-post rack mount kit
SLX9740-40C-DC-F	Extreme SLX-9740 with front to back air flow, base unit with 40x100GE/40GE capable QSFP28 ports, 2 DC power supplies, 6 fan modules and a 4-post rack mount kit
SLX9740-80C-DC-F	Extreme SLX-9740 with front to back air flow, base unit with 80x100GE/40GE capable QSFP28 ports, 4 DC power supplies, 4 fan modules and a 4-post rack mount kit
XN-FAN-003-F	SLX 9740 FAN Front to Back airflow for SLX9740-40C
XN-FAN-003-R	SLX 9740 FAN Back to Front airflow for SLX9740-40C
XN-FAN-004-F	SLX 9740 FAN Front to Back airflow for SLX9740-80C
XN-FAN-004-R	SLX 9740 FAN Back to Front airflow for SLX9740-80C
XN-ACPWR-1600W-F	SLX 9740 Fixed AC 1600W Power Supply Front to Back. Power cords not included.
XN-ACPWR-1600W-R	SLX 9740 Fixed AC 1600W Power Supply Back to Front. Power cords not included.
XN-DCPWR-1600W-F	SLX 9740 Fixed DC 1600W Power Supply Front to Back. Power cords not included.
SLX9740-ADV-LIC-P	Advanced Feature License for MPLS, BGP-EVPN and Integrated Application Hosting for Extreme SLX 9740
XN-2P-RKMT299	2-Post Rail Kit for SLX 9740-40C
XN-2P-RKMT300	2-Post Rail Kit for SLX 9740-80C
XN-4P-RKMT301	4-Post Rail Kit for SLX 9740-80C
XN-4P-RKMT302	4-Post Rail Kit for SLX 9740-40C

Optics/Transceivers

For the most up-to-date list of optics/transceivers supported on this product, refer to our Extreme Optics Compatibility Tool at https://optics.extremenetworks.com.

Power Cords

In support of Extreme Networks green initiatives, power cords are not included with the SLX 9740 but can be ordered separately. They should be specified at time of ordering.

Warranty

The SLX 9740 is covered under Extreme's Product Warranty Policy. For warranty details visit http://www.extremenetworks.com/support/policies

Maintenance Services

Extreme's maintenance and support services with 100% in-sourced engineering experts and over 90% first-person resolution ensure efficient operation of your business-essential network. 24x7x365 phone support, advanced parts replacement, and on-site support augment your staff with experienced resources that help you mitigate critical network issues fast. Visit Extreme Maintenance Services for more information.