September 2024

Extreme SLX-OS 20.6.2

Release Notes

Supporting ExtremeRouting and ExtremeSwitching SLX 9740, SLX 9640, SLX 9540, SLX 9250, SLX 9150, Extreme 8720, Extreme 8520, and Extreme 8820

Part Number 9038889-00 Rev AC

Contents

Document History

Version	Summary of changes	Publication date
1.0	Initial version for 20.6.2	June 2024
1.1	Added defect SLXOS-76190 to the list of defects closed with code changes. Updated the TPVM section to reflect new TPVM release added post June 2024.	July 2024
1.2	Added important information about applicable Field Notes FN-2024-503 and FN-2024-504. Added to the Release Overview section.	September 2024

Preface

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, call (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

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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 want to receive notifications.
   Note: You can change your product selections or unsubscribe at any time.
4. Select **Submit**.

Extreme Resources

Visit the Extreme website to locate related documentation for your product and additional Extreme resources.

White papers, data sheets, and the most recent versions of Extreme software and hardware manuals are available at https://www.extremenetworks.com/. Product documentation for all supported releases is available to registered users at https://www.extremenetworks.com/support/documentation/.

Document 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

You can provide feedback in the following ways:

- In a web browser, select the feedback icon and complete the online feedback form.
- Access the feedback form at http://www.extremenetworks.com/documentation-feedback-pdf/.
- 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.

Release Overview

NOTE:

This software release has the following Field Notices applied:

- FN-2024-503
- FN-2024-504

Release SLX-OS 20.6.2 provides the following features:

- Monitoring Temperature sensors and SNMP Notification
- Monitoring ACL resources and SNMP Notifications
- Upgrade Intel Microcode
- SNMP support to notify Password Expiry for SLX-OS users
- Fabric QoS support – VxLAN Tunnel Interface
- IEEE 802.3 defined FEC counters retrieval support
- Error checking during SLX-OS firmware upload on a SLX platform [over SCP transport]
- Allow LACP protocol traffic to passthrough on port in a P2P bridge domain (VLL) deployment
- CLI support for "load-balance hash"
- Optics qualification - correcting Finisar optic qualification with rev. AA and AB for 100G optic

Behavior Changes

The following is the behavioral change for SLX-OS 20.6.2

- There is a change in the output of the 'show interface' command, due to the addition of FEC counter information. This might require changes to any automation script using the output of this command.
- On SLX 9740 and Extreme 8820, `lag hash normalize` hashing is disabled by default from this release onwards. Use the command `lag hash normalize` to enable this hashing.

Software Features

The following key software features are added in the SLX-OS 20.6.2 release:

Feature Name	Supported SLX Platforms	Description
Monitoring Temperature sensors and SNMP Notification	ALL	Temperature sensors on SLX platform are monitored for pre-defined threshold values and SNMP notifications are sent out for the corresponding change
Monitoring ACL resources and SNMP Notifications	ALL	Hardware ACL resources are monitored for usage and

Feature Name	Supported SLX Platforms	Description
		notifications are generated as user-defined thresholds are exceeded
Upgrade Intel Microcode	ALL	Intel microcode upgrades are supported via the SLX-OS firmware update process
SNMP support to notify Password Expiration for SLX-OS users	ALL	Additional SNMP notification support to notify for User password expiry events on SLX-OS
Fabric QoS support – VxLAN Tunnel Interface	SLX 9540, SLX 9640	QoS support is added for VxLAN tunnel interfaces
IEEE 802.3 defined FEC counters retrieval support	ALL	Forward Error Correction (FEC) counters can now be retrieved on SLX-OS for all platforms
Improvement in error reporting during SLX-OS firmware upload on a SLX platform [over SCP transport]	ALL	Improved error reporting for attempts to install a mismatched SLX-OS image on SLX platforms through SCP
Allow LACP protocol traffic to passthrough on port in a P2P bridge domain (VLL) deployment	SLX 9740, Extreme 8820	L2 traffic pass-through across P2P bridge-domains (VLL) is supported for the SLX 9740 and Extreme 8820. This includes support for CLI – `lacp-pdu-forward`
CLI support for `load-balance hash` command	SLX 9740, Extreme 8820	CLI `load balance hash` support and related `show` commands are added for the SLX 9740 and Extreme 8820 platforms
Optics qualification - correcting Finisar optic qualification with rev. AA and AB for 100G optic	SLX 9540	100 G optic with rev. AA and AB from vendor Finisar are qualified from this release

CLI Commands

The following commands were added, modified, or deprecated for the 20.6.1 release

New commands for 20.6.2

- No commands were added in this release

Modified commands for 20.6.2

- `lacp-pdu-forward`
- `lag hash`
- `load-balance hash`
- `qos trust dscp`
- `show environment temp`
- `show hardware profile`
- `show interface`
- `show port-channel`
- `show port-channel load-balance`
- `show threshold monitor`
- `show version`
- `threshold monitor`
- `threshold monitor acl`
- `username`

Deprecated commands for 20.6.2

- No commands were deprecated in this release

Hardware Support

Supported devices and software licenses

Supported devices	Description
SLX9740-40C	Extreme SLX 9740-40C Router. Base unit with 40x100GE/40GE capable QSFP28 ports, 2 unpopulated power supply slots, 6 unpopulated fan slots
SLX9740-40C-AC-F	Extreme SLX 9740-40C-AC-F Router. Base unit with 40x100GE/40GE capable QSFP28 ports, 2 AC power supplies, 6 fan modules
SLX9740-80C	Extreme SLX 9740-80C Router. Base unit with 80x100GE/40GE capable QSFP28 ports, 4 unpopulated power supply slots, 4 unpopulated fan slots
SLX9740-80C-AC-F	Extreme SLX 9740-80C-AC-F Router. Base unit with 80x100GE/40GE capable QSFP28 ports, 4AC power supplies, 4 fan modules
SLX9740-ADV-LIC-P	Advanced Feature License for MPLS, BGP-EVPN and Integrated Application Hosting for Extreme SLX 9740
SLX9150-48Y-8C	Extreme SLX 9150-48Y Switch with two empty power supply slots, six empty fan slots. Supports 48x25GE/10GE/1GE + 8x100GE/40GE.
SLX9150-48Y-8C-AC-F	Extreme SLX 9150-48Y Switch AC with Front to Back Airflow. Supports 48x25GE/10GE/1GE + 8x100GE/40GE with dual power supplies, six fans.
SLX9150-48Y-8C-AC-R	Extreme SLX 9150-48Y Switch AC with Back to Front Airflow. Supports 48x25GE/10GE/1GE + 8x100GE/40GE with dual power supplies, six fans.
SLX9150-48XT-6C	Extreme SLX 9150-48XT 10GBaseT Switch with two empty power supply slots, six empty fan slots, Supports 48x10GE/1GE + 6x100GE/40GE.
SLX9150-48XT-6C-AC-F	Extreme SLX 9150-48XT 10GBaseT Switch AC with Front to Back Airflow, Supports 48x10GE/1GE + 6x100GE/40GE with dual power supplies, six fans.

Supported devices	Description
SLX9150-48XT-6C-AC-R	Extreme SLX 9150-48XT 10GBaseT Switch AC with Back to Front Airflow, Supports 48x10GE/1GE + 6x100GE/40GE with dual power supplies, six fans.
SLX9150-ADV-LIC-P	SLX 9150 Advanced Feature License for GuestVM, Analytics Path, PTP, BGP-EVPN.
SLX9250-32C	SLX 9250-32C Switch with two empty power supply slots, six empty fan slots. Supports 32x100/40GE.
SLX9250-32C-AC-F	SLX 9250-32C Switch AC with Front to Back Airflow. Supports 32x100GE/40GE with dual power supplies, six fans.
SLX9250-32C-AC-R	SLX 9250-32C Switch AC with Back to Front Airflow. Supports 32x100GE/40GE with dual power supplies, six fans.
SLX9250-ADV-LIC-P	SLX 9250 Advanced Feature License for GuestVM, Analytics Path, BGP-EVPN.
BR-SLX-9540-48S-AC-R	SLX 9540-48S Switch AC with Back to Front airflow (Non-port Side to port side airflow). Supports 48x10GE/1GE + 6x100GE/40GE. (1+1) redundant power supplies and (4+1) redundant fans included.
BR-SLX-9540-48S-AC-F	SLX 9540-48S Switch AC with Front to Back airflow (Port-side to non-port side airflow). Supports 48x10GE/1GE + 6x100GE/40GE. (1+1) redundant power supplies and (4+1) redundant fans included.
BR-SLX-9540-24S-DC-R	SLX 9540-24S Switch DC with Back to Front airflow (Non-port Side to port side airflow). Supports 24x10GE/1GE + 24x1GE ports.
BR-SLX-9540-24S-DC-F	SLX 9540-24S Switch DC with Front to Back airflow (Port-side to non-port side airflow). Supports 24x10GE/1GE + 24x1GE ports.
BR-SLX-9540-24S-AC-R	SLX 9540-24S Switch AC with Back to Front airflow (Non-port Side to port side airflow). Supports 24x10GE/1GE + 24x1GE ports.
BR-SLX-9540-24S-AC-F	SLX 9540-24S Switch AC with Front to Back airflow (Port-side to non-port side airflow). Supports 24x10GE/1GE + 24x1GE ports.
BR-SLX-9540-48S-DC-R	SLX 9540-48S Switch DC with Back to Front airflow (Non-port Side to port side airflow). Supports 48x10GE/1GE + 6x100GE/40GE. (1+1) redundant power supplies and (4+1) redundant fans included.
BR-SLX-9540-48S-DC-F	SLX 9540-48S Switch DC with Front to Back airflow (Port-side to non-port side airflow). Supports 48x10GE/1GE + 6x100GE/40GE. (1+1) redundant power supplies and (4+1) redundant fans included.
BR-SLX-9540-24S-COD-P	Upgrade 24x1GE to 24x10GE/1GE for SLX 9540
BR-SLX-9540-ADV-LIC-P	Advanced Feature License for SLX 9540
EN-SLX-9640-24S	Extreme SLX 9640-24S Router. Supports 24x10GE/1GE + 4x100GE/40GE. (24S+4C sku no Power supplies or Fans)
EN-SLX-9640-24S-12C	Extreme SLX 9640-24S Router. Supports 24x10GE/1GE + 12x100GE/40GE. (All ports 24S+12C sku with no Power supplies or Fans)
EN-SLX-9640-24S-AC-F	Extreme SLX 9640-24S Router AC with Front to Back airflow. Supports 24x10GE/1GE + 4x100GE/40GE.(1 Power supply 6 Fans)
EN-SLX-9640-24S-12C-AC-F	Extreme SLX 9640-24S Router AC with Front to Back airflow. Supports 24x10GE/1GE + 12x100GE/40GE.(1 Power supply 6 Fans)
EN-SLX-9640-4C-POD-P	Extreme SLX 9640 Ports on Demand License for 4 ports of 100GE/40GE Uplinks
EN-SLX-9640-ADV-LIC-P	Extreme SLX 9640 Advanced Feature License

Supported devices	Description
8720-32C	Extreme 8720-32C Switch with two empty power supply slots, six empty fan slots and a 4-post rack mount kit, Supports 32x100/40GE
8720-32C-AC-F	Extreme 8720-32C Switch with front to back airflow, Supports 32x100/40G with two AC power supplies, six fans and a 4-post rack mount kit
8720-32C-AC-R	Extreme 8720-32C Switch with back to front airflow, Supports 32x100/40G with dual AC power supplies, six fans and a 4-post rack mount kit
8720-32C-DC-F	Extreme 8720-32C Switch with front to back airflow, Supports 32x100/40G with dual DC power supplies, six fans and a 4-post rack mount kit
8720-32C-DC-R	Extreme 8720-32C Switch with back to front airflow, Supports 32x100/40G with dual DC power supplies, six fans and a 4-post rack mount kit
8520-48Y-8C	Extreme 8520-48Y Switch with two empty power supply slots, six empty fan slots; Ships with one 4-post rack mount kit; Supports 48x25/10/1G and 8x100/40G ports
8520-48Y-8C-AC-F	Extreme 8520-48Y Switch with front-back airflow; Ships with two AC power supplies, six fans, one 4-post rack mount kit; Supports 48x25/10/1G and 8x100/40G ports
8520-48Y-8C-AC-R	Extreme 8520-48Y Switch with back-front airflow; Ships with two AC power supplies, six fans, one 4-post rack mount kit; Supports 48x25/10/1G and 8x100/40G ports
8520-48Y-8C-DC-F	Extreme 8520-48Y Switch with front-back airflow; Ships with two DC power supplies, six fans, one 4-post rack mount kit; Supports 48x25/10/1G and 8x100/40G ports
8520-48Y-8C-DC-R	Extreme 8520-48Y Switch with back-front airflow; Ships with two DC power supplies, six fans, one 4-post rack mount kit; Supports 48x25/10/1G and 8x100/40G ports
8520-48XT-6C	Extreme 8520-48XT Switch with two empty power supply slots, six empty fan slots; Ships with one 4-post rack mount kit; Supports 48x10/1G copper ports and 6x100/40G fiber ports
8520-48XT-6C-AC-F	Extreme 8520-48XT Switch with front-back airflow; Ships with two AC power supplies, six fans, one 4-post rack mount kit; Supports 48x10/1G copper ports and 6x100/40G fiber ports
8520-48XT-6C-AC-R	Extreme 8520-48XT Switch with back-front airflow; Ships with two AC power supplies, six fans, one 4-post rack mount kit; Supports 48x10/1G copper ports and 6x100/40G fiber ports
8520-48XT-6C-DC-F	Extreme 8520-48XT Switch with front-back airflow; Ships with two DC power supplies, six fans, one 4-post rack mount kit; Supports 48x10/1G copper ports and 6x100/40G fiber ports
8520-48XT-6C-DC-R	Extreme 8520-48XT Switch with back-front airflow; Ships with two DC power supplies, six fans, one 4-post rack mount kit; Supports 48x10/1G copper ports and 6x100/40G fiber ports
8000-PRMR-LIC-P	Extreme 8000 Premier Feature License (includes Integrated Application Hosting)
8820-40C	Extreme 8820-40C base unit with 40x100GE/40GE QSFP28 ports with 2 unpopulated power supply slots, 6 unpopulated fan slots and a 4-post rack mount kit

Supported devices	Description
8820-40C-AC-F	Extreme 8820-40C with Front-Back airflow. Base unit with 40x100GE/40GE QSFP28 ports with 2 AC power supplies, 6 fan modules and a 4-post rack mount kit
8820-40C-AC-R	Extreme 8820-40C with Back-Front airflow. Base unit with 40x100GE/40GE QSFP28 ports with 2 AC power supplies, 6 fan modules and a 4-post rack mount kit
8820-40C-DC-F	Extreme 8820-40C with Front-Back airflow. Base unit with 40x100GE/40GE QSFP28 ports with 2 DC power supplies, 6 fan modules and a 4-post rack mount kit
8820-40C-DC-R	Extreme 8820-40C with Back-Front airflow. Base unit with 40x100GE/40GE QSFP28 ports with 2 DC power supplies, 6 fan modules and a 4-post rack mount kit
8820-80C	Extreme 8820-80C. Base unit with 80x100GE/40GE QSFP28 ports with 4 unpopulated power supply slots, 4 unpopulated fan slots and a 4-post rack mount kit
8820-80C-AC-F	Extreme 8820-80C with Front-Back airflow. Base unit with 80x100GE/40GE QSFP28 ports with 4 AC power supplies, 4 fan modules and a 4-post rack mount kit
8820-80C-AC-R	Extreme 8820-80C with Back-Front airflow. Base unit with 80x100GE/40GE QSFP28 ports with 4 AC power supplies, 4 fan modules and a 4-post rack mount kit
8820-80C-DC-F	Extreme 8820-80C with Front-Back airflow. Base unit with 80x100GE/40GE QSFP28 ports with 4 DC power supplies, 4 fan modules and a 4-post rack mount kit
8820-80C-DC-R	Extreme 8820-80C with Back-Front airflow. Base unit with 80x100GE/40GE QSFP28 ports with 4 DC power supplies, 4 fan modules and a 4-post rack mount kit

Supported power supplies, fans, and rack mount kits

XN-ACPWR-1600W-F	SLX 9740 Fixed AC 1600W Power Supply Front to Back. Power cords not included Extreme 8820 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. Extreme 8820 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 Extreme 8820 Fixed DC 1600W Power Supply Front to Back. Power cords not included
XN-DCPWR-1600W-R	Extreme 8820 Fixed DC 1600W Power Supply Back to Front. Power cords not included.
XN-FAN-003-F	SLX 9740 FAN Front to Back airflow for SLX9740-40C Extreme 8820 FAN Front to Back airflow for 8820-40C
XN-FAN-003-R	SLX 9740 FAN Back to Front airflow for SLX9740-40C Extreme 8820 FAN Back to Front airflow for 8820-40C
XN-FAN-004-F	SLX 9740 FAN Front to Back airflow for SLX9740-80C Extreme 8820 FAN Front to Back airflow for 8820-80C
XN-FAN-004-R	SLX 9740 FAN Back to Front airflow for SLX9740-80C Extreme 8820 FAN Back to Front airflow for 8820-80C
XN-4P-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
XN-ACPWR-750W-F	AC 750W PSU, Front to Back Airflow supported on VSP 7400, SLX 9150, SLX 9250, X695, Extreme 8720, Extreme 8520
XN-ACPWR-750W-R	AC 750W PSU, Back to Front Airflow supported on VSP 7400, SLX 9150, SLX 9250, X695, Extreme 8720, Extreme 8520
XN-DCPWR-750W-F	DC 750W PSU, Front to Back Airflow supported on VSP 7400, SLX 9150, SLX 9250, X695, Extreme 8720, Extreme 8520
XN-DCPWR-750W-R	DC 750W PSU, Back to Front Airflow supported on VSP 7400, SLX 9150, SLX 9250, X695, Extreme 8720, Extreme 8520
XN-FAN-001-F	Front to back Fan for use in VSP 7400, SLX 9150, SLX 9250, X695, Extreme 8720, Extreme 8520
XN-FAN-001-R	Back to Front Fan for use in VSP 7400, SLX 9150, SLX 9250, X695, Extreme 8720, Extreme 8520
XN-4P-RKMT298	Four post rack mount rail kit supported on VSP 7400, SLX 9150, SLX 9250, X695, Extreme 8720, Extreme 8520
XN-2P-RKMT299	Two post rack mount rail kit supported on VSP 7400, SLX 9150, SLX 9250, X695, Extreme 8720, Extreme 8520, Extreme 8820
XN-2P-RKMT300	2-Post Rail Kit for Extreme 8820-80C
XN-4P-RKMT301	4-Post Rail Kit for Extreme 8820-80C

XN-4P-RKMT302	4-Post Rail Kit for Extreme 8820-40C

Supported Optics and Cables

For a complete list of all supported optics, see **Extreme Optics** at https://optics.extremenetworks.com/.

Supported FEC modes

SLX 9250 and Extreme 8720

Port Type	Media Type	Default FEC Mode	Supported FEC Modes
100G	Passive DAC	RS-FEC	RS-FEC Disabled
100G	SR4	RS-FEC	RS-FEC Disabled
100G	LR4	Disabled	RS-FEC Disabled
25G	Breakout DAC SR	Auto-Neg	RS-FEC FC-FEC Auto-Neg Disabled
25G	Breakout SR4	FC-FEC	RS-FEC FC-FEC Disabled
25G	Breakout LR	RS-FEC	RS-FEC FC-FEC Disabled

SLX 9740 and Extreme 8820

Port Type	Media Type	Default FEC Mode	Supported FEC Modes
100G	Passive DAC	RS-FEC	RS-FEC Disabled
100G	SR4	RS-FEC	RS-FEC Disabled
100G	LR4	Disabled	RS-FEC Disabled
25G	Breakout DAC SR	FC-FEC	FC-FEC RS-FEC Disabled
25G	Breakout SR4	FC-FEC	FC-FEC RS-FEC Disabled
25G	Breakout LR	RS-FEC	RS-FEC FC-FEC Disabled

SLX 9150 and Extreme 8520

Port Type	Media Type	Default FEC Mode	Supported FEC Modes
100G	Passive DAC	RS-FEC	RS-FEC Disabled
100G	SR4	RS-FEC	RS-FEC Disabled
100G	LR4	Disabled	RS-FEC Disabled
25G(Native)	DAC	Auto-Neg	RS-FEC FC-FEC Auto-Neg Disabled
25G(Native)	SFP	FC-FEC	RS-FEC FC-FEC Disabled
25G(Native)	LR	RS-FEC	RS-FEC FC-FEC Disabled

SLX 9540 and SLX 9640

Port Type	Media Type	Default FEC Mode	Supported FEC Modes
100G	Passive DAC	RS-FEC	RS-FEC Disabled
100G	SR4	RS-FEC	RS-FEC Disabled
100G	LR4	Disabled	RS-FEC Disabled
25G	Breakout LR	RS-FEC	RS-FEC FC-FEC Disabled

Software Download and Upgrade

For more information about the various methods of upgrading to SLX-OS 20.6.2 see the *Extreme SLX-OS Software Upgrade Guide.*

Image files

Download the following images from www.extremenetworks.com.

Image file name	Description
SLX-OS_20.6.2.tar.gz	SLX-OS 20. 6.2 software
SLX-OS_20. 6.2_mibs.tar.gz	SLX-OS 20. 6.2 MIBS
SLX-OS_20. 6.2.md5	SLX-OS 20. 6.2 md5 checksum
SLX-OS_20. 6.2-digests.tar.gz	SLX-OS 20. 6.2 sha checksum
SLX-OS_20. 6.2-releasenotes.pdf	Release Notes

Baseboard Management Controller (BMC) firmware upgrade

- With SLX-OS 20.6.1 onwards, BMC firmware update will be performed along with SLX-OS update on BMC supported platforms. This upgrade will happen only if the installed BMC firmware version is older than the version bundled along with the SLX-OS firmware. Supported SLX platforms are Extreme 8520, Extreme 8720, Extreme 8820 and SLX 9740.
- No new SLX-OS CLI is introduced for BMC firmware upgrade, as this being an implicit BMC firmware update.
- With this new feature, BMC firmware image is bundled as part of SLX-OS image. When the user updates the OS, and, if BMC firmware version on the device is found to be older than the BMC image bundled with SLX-OS image, the BMC image bundled with SLX shall be updated on BMC along with SLX-OS update.
- By design, only BMC firmware upgrade is supported – downgrade is not supported.
- BMC firmware upgrade will occur with all supported SLX-OS upgrade methods – incremental, full install and net install
- In case the BMC upgrade fails, “firmware download” of SLX-OS will continue without any disruption.
- During BMC upgrade, IPMI/BMC connectivity will be impacted. Hence intermittent RASLOGS (e.g. FW-1404 and EM-1050, HIL-1404 etc) from environmental monitoring daemon may be observed. These intermittent RASLOG messages will disappear only after the device is reloaded.
- Existing BMC configuration will be preserved even after the BMC is updated.
- Limitations -
    - There is a small increase in SLX-OS installation time (around 4 to 7 minutes), if BMC firmware is also upgraded.
    - Intermittent RASLOGS or FFDC messages are generated due to interruption at BMC/IPMI channel.

Extreme 8820

To / From	20.4.3/a/b	20.5.1/a	20.5.2a	20.6.1	20.6.2
20.4.3 (Factory Image)	For upgrade: normal firmware download / coldboot				
20.5.1/a					
20.5.2a					
20.6.1					
20.6.2					

Extreme 8720

To / From	20.3.2/a-h	20.3.4/a-c	20.4.1x, 20.4.2x	20.4.3/a/b	20.5.1/a	20.5.2a	20.6.1	20.6.2
20.3.2/a-h	##	For upgrade and downgrade: full install						
20.3.4/a-c	For upgrade and downgrade: normal firmware download / coldboot							
20.4.1x, 20.4.2x								
20.4.3/a/b								
20.5.1/a								
20.5.2a								
20.6.1								
20.6.2								

Note:

- ## - Upgrade to 20.3.3 and above from earlier releases requires “fullinstall” due to change in ‘GRUB’. For upgrades within the patches of the same major release, use firmware download / coldboot. For downgrades, use fullinstall.

Extreme 8520

To / From	20.3.3	20.3.4/a-c	20.4.1x, 20.4.2x	20.4.3/a/b	20.5.1/a	20.5.2a	20.6.1	20.6.2
20.3.3	For upgrade and downgrade: normal firmware download / coldboot							
20.3.4/a-c								

To / From	20.3.3	20.3.4/a-c	20.4.1x, 20.4.2x	20.4.3/a/b	20.5.1/a	20.5.2a	20.6.1	20.6.2
20.4.1x, 20.4.2x								
20.4.3/a/b								
20.5.1/a								
20.5.2a								
20.6.1								
20.6.2								

Note:

- Upgrade to 20.3.3 and above from earlier releases requires “fullinstall” due to change in ‘GRUB’.

SLX 9740

To / From	20.3.2/a-h	20.3.4/a-c	20.4.1x, 20.4.2x	20.4.3/a/b	20.5.1/a	20.5.2a	20.6.1	20.6.2
20.3.2/a-h	##	For upgrade and downgrade: full install						
20.3.4/a-c	For upgrade and downgrade: normal firmware download / coldboot							
20.4.1x, 20.4.2x								
20.4.3/a/b								
20.5.1/a								
20.5.2a								
20.6.1								
20.6.2								

Note:

- For SLX 9740, downgrade to any 20.2.2x version needs to be done in two steps, with an intermediate step for downgrading to 20.2.2c and then to 20.2.x from 20.2.3x or higher. This restriction is not applicable for upgrade/downgrade between 20.2.3x and 20.3.x releases.
- ## - Upgrade to 20.3.3 and above from earlier releases requires “fullinstall” due to change in ‘GRUB’. For upgrades within the patches of the same major release, use firmware download / coldboot. For downgrades, use fullinstall.

SLX 9540 and SLX 9640

To / From	20.3.2/a-h	20.3.4/a-c	20.4.1x, 20.4.2x	20.4.3/a/b	20.5.1/a	20.5.2a	20.6.1	20.6.2
20.3.2/a-h	##	For upgrade and downgrade: full install						
20.3.4/a-c **20.4.1x, 20.4.2x** **20.4.3/a/b** **20.5.1/a** **20.5.2a**	For upgrade and downgrade: normal firmware download / coldboot							
20.6.1								
20.6.2								

Notes:

- Upgrade to 20.3.x from earlier releases requires “fullinstall” due to change in glibc.
- Downgrading from 20.3.x/20.2.2x/20.2.3x to 20.1.1 requires ‘fullinstall’ option for all platforms due to a change in glibc
- ## - Upgrade to 20.3.3 and above from earlier releases requires “fullinstall” due to change in ‘GRUB’. For upgrades within the patches of the same major release, use firmware download / coldboot. For downgrades, use fullinstall.

SLX 9150 and SLX 9250

To / From	20.3.2/a-h	20.3.4/a-c	20.4.1x, 20.4.2x	20.4.3/a/b	20.5.1/a	20.5.2a	20.6.1	20.6.2
20.3.2/a-h	##	For upgrade and downgrade: full install						
20.3.4/a-c	For upgrade and downgrade: normal firmware download / coldboot							
20.4.1x, 20.4.2x								
20.4.3/a/b								
20.5.1/a								
20.5.2a								
20.6.1								
20.6.2								

Note:

- ## - Upgrade to 20.3.3 and above from earlier releases requires “fullinstall” due to change in ‘GRUB’. For upgrades within the patches of the same major release, use firmware download / coldboot. For downgrades, use fullinstall.

Upgrade and Downgrade considerations for Threshold Monitor configuration:

Downgrade Considerations:

1. If configured value for Cpu "limit" exceeds valid range in older release [0-80] then downgrade will be blocked with error. User can reconfigure Cpu “limit” in the range [0-80] and downgrade.

2. If configured value for Memory "high-limit" exceeds valid range in older release [0-80] or if it is less than the default value of "limit" in older release [60], then downgrade will be blocked with error. User can reconfigure Memory “high-limit” in the range [60-80] and downgrade.

3. If the startup file has “actions” configured as “snmp” or “all”, then config replay process triggered in firmware full-install downgrade, will lead all the corresponding threshold-monitor CLI parameters, such as poll, retry, to reset to respective default values.

Upgrade Considerations:

1. If the startup file has “Memory limit and /or low-limit” configured, then config replay process triggered in firmware full-install downgrade, will lead all the corresponding threshold-monitor CLI parameters, such as poll, retry, to reset to respective default values.

SLX TPVM Support Matrix

SLX Build	SLX 9150/9250	Extreme 8520	Extreme 8720
20.4.2/a-b	TPVM 4.1.1 and later	TPVM 4.4.0 and later	TPVM 4.2.2 and later
20.4.3/a	TPVM 4.2.x and later	TPVM 4.4.0 and later	TPVM 4.2.2 and later
20.5.1/a	TPVM 4.2.5 and later	TPVM 4.4.0 and later	TPVM 4.2.5 and later
20.5.2a	TPVM 4.4.0 and later	TPVM 4.4.0 and later	TPVM 4.4.0 and later
20.5.3/a	TPVM 4.5.0 and later	TPVM 4.5.0 and later	TPVM 4.5.0 and later
20.6.1	TPVM 4.5.4 and later	TPVM 4.5.4 and later	TPVM 4.5.4 and later
20.6.2	TPVM 4.5.8 and later	TPVM 4.5.8 and later	TPVM 4.5.8 and later

Upgrading the TPVM without configuration persistence (Legacy upgrade method)

Upgrading TPVM from 4.0.x or 4.1.x to 4.2.x, 4.3.x, 4.4.x, 4.5.x, 4.6.x

Consider the following when upgrading TPVM from 20.1.2x , 20.2.2/x to 20.2.3x, 20.3.1 to 20.3.2x, 20.3.3, 20.3.4x, 20.4.x, 20.5.x, 20.6.x

- SLX-OS 20.3.x, 20.2.3/x has TPVM 4.2.x. SLX-OS 20.1.2x variants have TPVM 4.0.x, which is based on Ubuntu18.
- To upgrade from TPVM 4.0 to latest, do the following:
    - Upgrade to SLX-OS 20.3.x, 20.2.3/x, 20.4.x while the existing TPVM installation continues to run

    - Remove the existing TPVM using the **tpvm stop** and **tpvm uninstall** commands.
    - Copy the new *tpvm-4.x.x-0.amd64.deb* to */tftpboot/SWBD2900* on the SLX device.
    - Install TPVM 4.x.x using the **tpvm install** or **tpvm deploy** command.
        - Note that any additional TPVM disks, including vdb (implicitly created by TPVM 4.0.x or 4.1.x), are preserved with data during the previous steps.
    - If you need to remove the disks and start clean, then use the **tpvm uninstall force** command in place of **tpvm uninstall** in these steps. Alternatively, you can use **tpvm disk remove name <disk name>** to remove each additional disk manually. For example, `tpvm disk remove name vdb`.
- To perform patch upgrade from TPVM 4.5.x to latest, do the following:
    - Upgrade to SLX-OS 20.5.x while the existing TPVM 4.5.x installation continues to run
    - Copy the new *tpvm_inc_upg-4.5.X-X.amd64.deb* to */tftpboot/SWBD2900* directory on the SLX device.
    - Install latest TPVM 4.5.x using **tpvm upgrade incremental** command

Notes:

- TPVM 4.5.x can be incrementally upgraded from TPVM 4.4.0 and beyond.
- TPVM 4.5.x supports full install upgrade/downgrade from TPVM 4.4.0.

Consider the following when you upgrade TPVM from releases earlier than SLX-OS 20.2.1 to SLX-OS 20.2.x:

- During startup, the latest TPVM creates an additional TPVM disk (named vdb) and creates an ext4 partition inside it (named vdb1).
- This additional disk partition is mounted at `/apps` inside TPVM.
- The disk uses all the free space available and reserved for TPVM (platform specific) TPVM disk quota.
- If you are running an older TPVM and have the additional TPVM disks already created, it is recommended and as a best practice to make a backup and then delete the old disks. Use the **tpvm disk remove name <disk name>** command to remove the disk, which requires TPVM to be started if not already running.
- Uninstall the older TPVM using the **tpvm stop** and **tpvm uninstall** command.
- Install the new TPVM package using the **tpvm install** or **tvpm deploy** command.

Alternatively, after SLX has been upgraded, you can use one command, **tpvm uninstall force**, to uninstall the TPVM and delete all the disks in the TPVM disk pool.

After tpvm uninstall force, it is recommended to perform “no deploy” from tpvm config.

Important: The **tpvm uninstall force** process is destructive and irreversible, causing all TPVM data to be lost. The process works only if the TPVM is installed on the system.

Entire TPVM Data is automatically backed up in SLX while doing “**tpvm stop**” and restored during the next “**tpvm start**”. However, all the TPVM partitions data will be preserved. The data is preserved during “tpvm stop, uninstall” & “tpvm install”. User installed applications in TPVM are not preserved. During TPVM upgrade, it is advised to take EFA data backup from TPVM using “**efa system backup**” and transfer

the backup file outside TPVM to be completely safe. EFA release note document has a section for TPVM upgrade scenario and entire steps are mentioned in that document.

"**When EFA is installed on TPVM, "tpvm stop" followed by "uninstall" or "no deploy" tpvm config command, automatically takes only EFA database backup and not a backup of EFA installation."**

Notes:

- Security updates are added to the TPVM image and to the separate Debian file used for incremental TPVM update. Main TPVM image size is ~2.0 GB and the TPVM incremental update Debian file size is ~0.5 GB. You must have at least 1GB of free space on the switch before proceeding with the `tpvm upgrade incremental` command. The latest version in the TPVM 4.5.x branch, TPVM 4.5.14, has security updates till July 21st, 2023.
- Ubuntu Linux distribution on TPVM is upgraded to 20.04 LTS from TPVM version 4.6.0 onwards. As Ubuntu Linux distribution on TPVM is upgraded to 20.04 LTS incremental upgrade is not supported, upgrading TPVM from 4.5.x to 4.6.x needs a full upgrade. Please refer to the respective TPVM 4.6.x Release notes for more information
- The latest version in the TPVM 4.6.x branch, TPVM 4.6.13, has security updates till July 1st, 2024. Main TPVM image size is ~2.0 GB and the TPVM incremental update Debian file size is ~0.8 GB.
- VDB disk size for EFA has changed to 40 GB to accommodate storage for snapshot and the remaining space is considered as reserved space, for the new TPVM installation.

Upgrading the TPVM with configuration persistence – Recommended method

Consider the following when upgrading TPVM from 20.1.2x, 20.2.2/x, 20.3.x to 20.3.2x, 20.3.3, 20.3.4x, 20.4.x

1. SLX-OS old version with tpvm instance installed/deployed and few related config may be set.
2. SLX-OS upgrade done vide `firmware download` CLI command.
3. Across SLX-OS reboots, old TPVM too shall reboot if auto-boot config was there, else shall be there in installed state.
    - **a.** tpvm stop
    - **b.** tpvm uninstall
        - **i.** (or) tpvm uninstall force – if you plan to delete disk vdb (i.e. the TPVM /apps partition).
        - **ii.** Note:
            1. New mode like old mode, create disk vdb (/apps) by default upon first install/deploy or reuse previously existing partition.
            2. Currently the new mode does not support new disk creation. The **tpvm disk add** command can be used.
4. As simple example for new mode of deploying TPVM:
    a. Copy new TPVM debian Image under /tftpboot/SWBD2900. Only one file should be there and no subfolder should be present/created within this folder.
    b. Deploy TPVM in Config Mode:

```
SLX # config terminal

SLX (config)# tpvm TPVM
```

```
SLX (config-tpvm-TPVM) # deploy
SLX (config-tpvm-TPVM) # end
```

Above will install and start any TPVM image kept under /tftpboot/SWBD2900.

c. Deploy TPVM with some configuration and later update any runtime configuration:

```
SLX # config terminal

SLX (config)# tpvm TPVM

SLX (config-tpvm-TPVM) # password newpassword
SLX (config-tpvm-TPVM) # interface management ip 10.25.24.21/24
SLX (config-tpvm-TPVM) # auto-boot
SLX (config-tpvm-TPVM) # hostname newhostname
SLX (config-tpvm-TPVM) # timezone Europe/Stockholm
SLX (config-tpvm-TPVM) # deploy
SLX (config-tpvm-TPVM) # end

SLX # config terminal

SLX (config)# tpvm TPVM

SLX (config-tpvm-TPVM) # hostname oldhostname
SLX (config-tpvm-TPVM) # no timezone

SLX (config-tpvm-TPVM) # exit
```

5. Note:
   a. Now, say, if the **tpvm config hostname xyz** command is used. It will still work and apply on TPVM instance. But this configuration shall not be persisted in SLX Database and will become inconsistent. Same is true for any other configuration done in old way.
   b. As in above example, password, management configuration should always be set before deploy. If required later, refer User Guide and use tpvm stop, start for such update/maintenance reason.
   c. If **tpvm unstall force** command is used, then you will need to perform a **no deploy** and **deploy** in the new mode.

For more information on configuring TPVM Configuration Persistence, refer the 'Management Configuration Guide' for this version.

TPVM Migration

Upgrading the SLXOS to 20.3.2x, 20.3.3, 20.3.4x, 20.4.x, 20.5.x results in the creation of TPVM entries in SLX running-config implicitly (This happens when upgrading TPVM from SLXOS 20.1.2x, SLXOS 20.2.2/x, SLXOS 20.3.x to SLXOS 20.3.2x, 20.3.3, 20.3.4x)

Consider the following when upgrading TPVM from SLXOS 20.1.2x, SLXOS 20.2.2/x, SLXOS 20.3.x to SLXOS 20.3.2x, 20.3.3, 20.3.4x, 20.4.x, 20.5.x

a. SLX-OS old version with tpvm instance installed/deployed and few related config may be set in legacy exec CLI method
b. SLX-OS upgrade done with "`firmware download`" CLI command.
c. Across SLX-OS reboot, TPVM entries are created in SLX running-config implicitly as part of the TPVM migration feature

d. Check the configuration are persisted in TPVM using the CLI "`show running configuration tpvm`"
e. For TPVM upgrade to the latest version use command "`tpvm upgrade` … "
f. For TPVM upgrade incremental to the latest patch use command " `tpvm upgrade incremental …`"

Limitations and Restrictions

Copy flash to startup and reload with TPVM

setNTPServer and setLDAPServer statuses are reported as failed in the output of the `show tpvm status-history`. After reload, TPVM is expected to be running when the above configurations are re-applied. When the TPVM is not running and the NTP and LDAP configurations are applied, these errors are seen. This is a limitation as reapplying NTP and LDAP configurations are not supported.

You need to have minimum 1GB free space on TPVM when you try to perform the security patch upgrade using the command `tpvm upgrade incremental …`

TPVM upgrade incremental command and file support is available only from 4.5 if we try to perform the incremental upgrade from 4.4.0 to latest, the upgrade fails and ask to perform the tpvm upgrade.

TPVM upgrade incremental command will not be supported when you try TPVM deploy in config mode and TPVM upgrade incremental command will not support with snapshot option.

Do not use the **tpvm upgrade incremental** command to upgrade the patches with *tpvm-4.X.X-X.amd64.deb*. Use the *tpvm_inc_upg-4.X.X-X.amd64.deb* image file to perform incremental upgrades.

Similarly, do not use the *tpvm_inc_upg-4.X.X-X.amd64.deb* image file to perform full upgrade. Do not use this file to perform **tpvm deploy** in *config mode* and *option*.

TPVM Migration

The following table lists the various TPVM configurations and their migration status.

Configuration	Migration State	Notes
tpvm auto-boot	Migrated	
tpvm disk	Not Migrated	Disk configuration is not supported in the configuration mode, and therefore, not migrated.
tpvm password	Migrated	Only the old password is migrated. This is due to the password being encrypted and stored and it is not possible to know if the password was changed during the migration.
tpvm config ntp	Migrated	
tpvm config dns	Migrated	

Configuration	Migration State	Notes
tpvm config ldap	Migrated	Secure LDAP require certificates. It is assumed that certificates are already downloaded and installed. Certificates are not validated during this migration. A notification will be sent to the user to reconfigure LDAP certificate settings.
tpvm config hostname	Migrated	
tpvm config timezone	Migrated	
tpvm deploy <interface> allow-pwless	Not Migrated	This is the new default configuration and is not migrated.
tpvm deploy mgmt [dhcp | static]	Migrated	
tpvm deploy insight	Not Migrated	Insight interface configuration is not supported when configuring using the Privilege Execution Mode commands.
tpvm config ldap ca-cert	Not Migrated	Configuring the TPVM LDAP ca certificate
tpvm config trusted-peer	Not Migrated	All trusted-peer configurations are not migrated.

Additional information on TPVM Commands

Following list of TPVM commands under exec mode may not be supported (Not recommended to use from 4.2.x and later) in the future releases. The equivalent commands will continue to be available under config mode. Please refer to latest CLI documentation.

- tpvm config dns
- tpvm config hostname
- tpvm config ldap
- tpvm config ntp
- tpvm config timezone
- tpvm config trusted-peer
- tpvm auto-boot
- tpvm deploy
- tpvm password

Port macro restrictions on breakout port configuration on SLX 9740

A port macro (PM) is a port group. Each PM has 4 ports, which are contiguous. PM0 has ports 0/1-0/4, PM1 has ports 0/5-0/8, PM2 has ports 0/9-0/12, and so on.

There are 9 PMs in the SLX 9740-40C and 18 PMs in the SLX 9740-80C. Only the odd ports can be split to 4x10G or 4x25G using the breakout cables: 0/1, 0/3, 0/9, 0/11, 0/13, 0/15, 0/17, 0/19, 0/21, 0/23, 0/25, 0/27, 0/29, 0/31, 0/33, 0/35, 0/37, 0/39, 0/41, 0/43, 0/49, 0/51, 0/53, 0/55, 0/57, 0/59, 0/61, 0/63, 0/65, 0/67, 0/69, 0/71, 0/73, 0/75, 0/77, and 0/79. Breaking out these ports using the breakout cables results in 72 interfaces for the SLX 9740-40 and 144 interfaces for the SLX 9740-80C.

- Ports 5-8 and 45-48 cannot be broken up and are supported only in 100G.
- For any PM, 40G and 10G ports cannot coexist with 25G ports. The following configurations are not supported:

PM Configuration	Examples
If any port is configured as 40G or 4x10G breakout, no 4x25G breakout is allowed unless the 40G ports will be removed as part of the breakout operation.	• If 0/3 or 0/4 is 40G, you cannot configure 0/1 as 4x25G breakout. • If 0/1 is 4x10G breakout, you cannot configure 0/3 as 4x25G breakout. • If 0/3 is 4x10G breakout, you cannot configure 0/1 as 4x25G breakout. • If 0/1 or 0/2 is 40G, you can configure 0/1 as 4x25G breakout because 0/1 and 0/2 will be removed. • If 0/3 or 0/4 is 40G, you can configure 0/3 as 4x25G breakout because 0/3 and 0/4 will be removed.
If 4x25G breakout is configured, no 40G or 4x10G.	• If 0/1 is configured as 4x25G breakout, you cannot configure 0/3 or 0/4 as 40G. • If 0/1 is configured as 4x25G breakout, you cannot configure 0/3 as 4x10G breakout. • If 0/3 is configured as 4x25G breakout, you cannot configure 0/1 or 0/2 as 40G. • If 0/3 is configured as 4x25G breakout, you cannot configure 0/1 as 4x10G breakout.

QoS

- PCP remarking is not supported for SLX 9740 and Extreme 8820.
- Egress rate limiting in a Bridge Domain configuration is not supported for SLX 9740 and Extreme 8820.
- DSCP-COS map is not supported for SLX 9740 and Extreme 8820.
- On SLX 9540 and 9640 platforms, L3 QoS is not supported for VxLAN L3 gateway.
- On SLX 9540 and SLX 9640, if Trust-DSCP feature is enabled, then non-IP packets will take only the default traffic class value. *For more details, refer the QoS section of SLX-OS 20.6.2 Traffic Management guide.*

Others

- sflow sampling does not work for VLL when BUM rate limiting is applied on interface in SLX 9740
- sflow sample traffic to CPU is rate limited. You can use the **qos cpu slot** command to change the rate.

- When Resilient Hashing CLI is enabled or disabled, or the *max-path* value is changed, it may cause **BFD sessions** in **related VRFs** to go down. However, **BFD sessions in unrelated VRFs will not be affected.**
- Resilient Hashing feature is supported only on SLX 9150, SLX 9250, SLX 9740, Extreme 8720 and Extreme 8520. Other platforms are not supported.
- Resilient Hashing supports 32K flowset entries for Extreme 8720 and Extreme 8520.

Open Config Telemetry Support

- User authentication not supported.
- gNMI calls through inband interfaces not supported.
- Usage of wild cards is not supported.
- gNMI SET is not supported.
- gNMI ON CHANGE subscription is not supported.

SNMP

- Not all counters related to UDP, and TCP MIBs are supported.
- Configuring an in-band port into a Management VRF requires SNMP agent reload.

Maximum Logical Interfaces or LIFs scale

Maximum Logical Interface (LIF) (Port-VLAN/Port-Bridge Domain (BD)) associations supported on SLX 9150, SLX 9250, Extreme 8520, Extreme 8720 is 14200. Since VLAN and BD resources share the same hardware table memory space, the max scale of one has a trade-off with the scale of the other. That is, for example, the maximum Port-BD associations cannot be scaled to 14200 when the combined scale of VLAN and BDs exceeds 8096.

IPv6 Manageability support on TPVM

- The TPVM management interface can be configured with a single IPv6 address. You can configure an IPv4 address in addition to the IPv6 address. Configuring IPv4 address is optional.
- tpvm stop and tpvm start commands must be issued to configure the TPVM management interface's IPv4 and IPv6 address.

Removal of DF towards IP Fabric (Local Bias support for LVTEP)

- Single-homed LVTEP client (spine uplink DOWN in one of the MCT nodes) is not supported.
- Need to have backup routing over ICL to reach the spines in case of uplink failure.

ICMP and ICMPv6 redirect

Enable/disable ICMP and ICMPv6 redirect are only available on SLX 9540 and SLX 9640. On these platforms, these are only supported on physical ports.

Transporting IPv6 traffic over GRE IPv4 Tunnel

- If GRE feature is enabled, IPv6 ACL filters to drop OSPFv3 packets will not work for SLX 9740 and Extreme 8820 platforms.
- Multicast traffic is not supported over IPv6 GRE overlay. Multicast packets will be dropped.
- IPv6 ACL is not supported on GRE tunnel.
- IPv4 and IPv6 control packets over the GRE Tunnel are not accounted for in the GRE tunnel statistics.

- DSCP value from the inner IPv6 packet is not copied to outer GRE header on SLX 9540 and SLX 9640 platforms.

Flow Based Mirroring

(Applicable to SLX 9150, SLX 9250, Extreme 8720 and Extreme 8520 platforms)

- Flow based ingress mirroring does not support port-channel port as a mirroring source port.
- Flow based ingress mirroring supports VLAN as a mirroring source port, but VLAN range is not supported.

Open Defects

The following software defects are open in SLX-OS 20.6.2 as of June 2024:

Parent Defect ID:	SLXOS-64409	**Issue ID:**	SLXOS-64606
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.3.4a
Technology Group:	Management	**Technology:**	CLI - Command Line Interface
Symptom:	TPVM configuration is lost when the device reloads with default configuration during firmware update.		
Condition:	Issue happens when "default-config" option is provided in "firmware download" command.		
Workaround:	Execute following commands - "copy default-config startup-config" and then "firmware download" command without "default-config" option.		

Parent Defect ID:	SLXOS-65249	**Issue ID:**	SLXOS-65249
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.1
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	ARP - Address Resolution Protocol
Symptom:	In SLX 9740, Traffic Convergence takes ~3 seconds.		
Condition:	Nexthop change takes place in ECMP prefixes.		

Parent Defect ID:	SLXOS-66144	**Issue ID:**	SLXOS-66144
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.1
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	ARP - Address Resolution Protocol
Symptom:	Traffic takes more than 900 msec in the N-S direction when a port channel between the Gateway and Border Leaf fails. Minimum link is configured over this port channel and the trigger is the shutdown of one interface belonging to the port channel.		
Condition:	Minimum-link is configured between border leaf and gateway. When a port channel member between them is shutdown in the BL side, the PO is expected to fail. The GW should redirect the traffic to the other border leaf. This was seen to take more than 900 ms. The GW is a SLX 9640.		

Parent Defect ID:	SLXOS-66738	**Issue ID:**	SLXOS-66738
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.1
Technology Group:	Monitoring	**Technology:**	Port Mirroring

Symptom:	In port mirroring configuration if destination interface is a port-channel and source interface is either a port-channel or member of a port-channel then destination port-channel interface goes down.
Condition:	Issue is seen if in port mirroring configuration destination interface is configured as a port-channel.

Parent Defect ID:	SLXOS-68095	**Issue ID:**	SLXOS-68095
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.2
Technology Group:	-	**Technology:**	-
Symptom:	Convergence of L3VNI Asymmetric traffic takes 30 seconds.		
Condition:	Reloading one of the Multi-homed peer.		

Parent Defect ID:	SLXOS-70172	**Issue ID:**	SLXOS-70172
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.3
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Unexpected reload of device.		
Condition:	Device reloaded unexpectedly on execution of execution of "clear ip route all vrf" with "prefix-independent-convergence-static" already configured.		

Parent Defect ID:	SLXOS-70592	**Issue ID:**	SLXOS-70592
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.3
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BFD - BiDirectional Forwarding Detection
Symptom:	BFD sessions flap while rebooting a leaf node		
Condition:	In an MCT pair, BFD sessions flap while rebooting a leaf node with SRIOV clients		

Parent Defect ID:	SLXOS-71412	**Issue ID:**	SLXOS-71901
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.2.2b_CVR
Technology Group:	MPLS	**Technology:**	MPLS Traffic Engineering
Symptom:	Unexpected reload is seen due to MPLSD module reset.		
Condition:	MPLSD module reset due to the message queue becoming full on MPLS.		

Parent Defect ID:	SLXOS-73347	**Issue ID:**	SLXOS-73347
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.2
Technology Group:	Layer 2 Switching	**Technology:**	Other
Symptom:	In VPLS environments, sometimes MAC is not learned on AC ports resulting in flooding of L2 traffic destined for the missed MAC.		
Condition:	In VPLS environments, MAC is not learned on AC ports because of Ingress Vlan Editing table full which could happen under the following conditions: - More than one tag-type is configured on the system. - Many different types of Vlan editing configured on the system. - Issue is seen on 9740/8820 only		
Workaround:	Changes in the configuration could resolve the issue. Different tag-types need more Vlan editing resources. Reducing the number of different tag-types and reconfiguring the port could resolve the issue.		

Parent Defect ID:	SLXOS-75012	**Issue ID:**	SLXOS-75012
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.3
Technology Group:	Traffic Management	**Technology:**	Traffic Queueing and Scheduling
Symptom:	QoS user map TC-to-COS is not allowed to configure on interface (Physical/Logical).		
Condition:	When we apply the service policy first on the interface (physical/Logical) before QoS Map		

Parent Defect ID:	SLXOS-76134	**Issue ID:**	SLXOS-76134
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.3
Technology Group:	-	**Technology:**	-
Symptom:	show media CLI on the 40G ports was always reporting high alarm for TxPower.		
Condition:	Issue was in reading the correct threshold values for the TxPower which was wrongly read, which caused this issue to report high alarms for any TxPower value		

Defects Closed with Code Changes

The following software defects were closed in SLX-OS 20.6.2 with code changes as of June 2024:

Parent Defect ID:	SLXOS-74529	**Issue ID:**	SLXOS-74529
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.2.3ja
Technology Group:	MPLS	**Technology:**	MPLS VLL - Virtual Leased Line
Symptom:	IGMP traffic via VPLS VLL is getting dropped in hardware		
Condition:	IGMP traffic passed via VPLS VLL is getting dropped in SLX-9740 and Extreme-8820 platforms		

Parent Defect ID:	SLXOS-74564	**Issue ID:**	SLXOS-74564
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.2.3ja
Technology Group:	Traffic Management	**Technology:**	Traffic Queueing and Scheduling
Symptom:	"show tm voq-stat ingress-device all max-queue-depth" displays the old max-queue statistics despite clearing the counters by giving "clear tm voq-stat ingress-device all egress-port all"		
Condition:	Happens always. Once the traffic starts flowing and the max-queue statistics increments, user is not able to clear it.		
Workaround:	Could clear the statistics at individual interface level, instead of all, using "clear tm voq-stat ingress-device all egress-port Ethernet 0/1".		

Parent Defect ID:	SLXOS-74940	**Issue ID:**	SLXOS-74940
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.3b
Technology Group:	Other	**Technology:**	Other
Symptom:	Link flap and remote fault when used with the Finisar 100G optic Rev AA and AB on SLX-9540		
Condition:	This issue happened only with this specific Finisar Rev AA and AB optic used on SLX-9540 Platform. Now this issue is fixed.		
Workaround:	None		
Recovery:	None		

Parent Defect ID:	SLXOS-74982	**Issue ID:**	SLXOS-74982
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.2a
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	DNS - Domain Name System
Symptom:	Incorrect error returned mentioning DNS resolution failed, when the DNS server resolves to an unreachable IP.		

Condition:	DNS server configured on a default vrf DNS server returning an unreachable IP
Workaround:	None
Recovery:	None

Parent Defect ID:	SLXOS-75086	**Issue ID:**	SLXOS-75086
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.1a
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	Static Routing (IPv4)
Symptom:	On SLX-9150/SLX-9250/Extreme-8520/Extreme-8720 platforms, when null static route is added, the traffic gets punted to CPU if the active path goes down.		
Condition:	There is null static route entry added and the active path goes down.		

Parent Defect ID:	SLXOS-75343	**Issue ID:**	SLXOS-75343
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.2.3j
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	IPv6 Addressing
Symptom:	IPv6 ND packets with duplication potentially leading to protocol flaps.		
Condition:	Ipv6 ND packets are duplicated more during route loop conditions.		

Parent Defect ID:	SLXOS-75442	**Issue ID:**	SLXOS-75442
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.3b
Technology Group:	Management	**Technology:**	CLI - Command Line Interface
Symptom:	Support Save fails due to a crash.		
Condition:	This happens while initiating the support save to a non-existent USB destination folder. This issue is now fixed.		
Workaround:	None		
Recovery:	None		

Parent Defect ID:	SLXOS-75479	**Issue ID:**	SLXOS-75479
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.1d
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	Traffic forwarding via suboptimal path		

Condition:	With BGP shortcut feature, a BGP route path cost remains at 64 and not follow IGP path cost.
Workaround:	None

Parent Defect ID:	SLXOS-75480	**Issue ID:**	SLXOS-75480
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.3b
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	Other
Symptom:	Default route appears in SLX-OS routing table but missing from Linux kernel IP routing table.		
Condition:	This issue can be seen if we try to add route to kernel when the Management interface is not ready.		

Parent Defect ID:	SLXOS-75620	**Issue ID:**	SLXOS-75620
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.3c
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	SLX device may get inadvertently rebooted due to out of memory crash of RIB manager process.		
Condition:	BGP PIC feature enabled.		

Parent Defect ID:	SLXOS-75906	**Issue ID:**	SLXOS-75906
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.4.1b
Technology Group:	Management	**Technology:**	Software Installation & Upgrade
Symptom:	Failure to download the TPVM deb file.		
Condition:	This failure happens when the remote host password has the special character '&'. Now this issue is fixed to take care of this special character.		
Workaround:	None		
Recovery:	None		

Parent Defect ID:	SLXOS-76007	**Issue ID:**	SLXOS-76007
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.2b
Technology Group:	Management	**Technology:**	Software Installation & Upgrade
Symptom:	BMC firmware update through the exec mode CLI will not be successful.		

Condition:	This happens when the BMC firmware update CLI is used the 'VRF' option.
Workaround:	None
Recovery:	None

Parent Defect ID:	SLXOS-75922	**Issue ID:**	SLXOS-76016
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.3a
Technology Group:	Security	**Technology:**	PBR - Policy-Based Routing
Symptom:	Traffic is not falling back to normal routing path when PBR next-hop is not available		
Condition:	PBR next-hop becomes unreachable		
Workaround:	Rebind the PBR configuration		

Parent Defect ID:	SLXOS-75842	**Issue ID:**	SLXOS-76046
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.3a
Technology Group:	Layer 2 Switching	**Technology:**	MCT - Multi-Chassis Trunking
Symptom:	From the perspective of a dual-homed client, there is a small window of time when one port is up and the second port is coming up, during which BUM (Broadcast, Unknown unicast, and Multicast) traffic could be inadvertently looped back to the client.		
Condition:	During the CCEP port-channel link up, BUM traffic received on the newly activated port is briefly flooded back to the client via the MCT peer until the MCT control plane converges. The BUM flooding was observed for approximately 20msec on 8820/9740 platforms.		
Workaround:	No known workarounds		

Parent Defect ID:	SLXOS-76080	**Issue ID:**	SLXOS-76080
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1
Technology Group:	Security	**Technology:**	HTTP/HTTPS
Symptom:	Failed to establish HTTPS connection		
Condition:	Device reloaded when HTTPS enabled only on MGMT-VRF.		

Parent Defect ID:	SLXOS-76159	**Issue ID:**	SLXOS-76159
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1
Technology Group:	Management	**Technology:**	Software Installation & Upgrade
Symptom:	SLX-OS image download will be in-complete or firmware download will not be successful, and device will go for a reboot.		

Condition:	When the network is slow, and the firmware download takes more time, this condition happens.
Workaround:	None
Recovery:	None

Parent Defect ID:	SLXOS-76190	**Issue ID:**	SLXOS-76190
Severity:	S2 - Major		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.5.1a
Technology Group:	Other	**Technology:**	Other
Symptom:	The memory used by the Linux kernel will gradually increase until all the available memory in the device is used by kernel. This will lead to Linux/SLX-OS to reboot due to OOM(Out Of Memory)		
Condition:	When the BMC in the device gets rebooted/reset unexpectedly.		
Workaround:	None		
Recovery:	None		

Parent Defect ID:	SLXOS-76222	**Issue ID:**	SLXOS-76222
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1
Technology Group:	Layer 3 Routing/Network Layer	**Technology:**	BGP4 - IPv4 Border Gateway Protocol
Symptom:	BGP routing table having suboptimal route and traffic getting forwarded via non best path		
Condition:	The issue can be seen during BGP graceful restart or during EVPN neighbor deactivation or maintenance mode.		
Workaround:	None		

Parent Defect ID:	SLXOS-76202	**Issue ID:**	SLXOS-76276
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1
Technology Group:	Management	**Technology:**	SNMP - Simple Network Management Protocol
Symptom:	When MM is disabled, extremeMaintenanceModeExitTrap generated has extremeMaintenanceModeConvergenceStatus set as timedout.		
Condition:	When MM is disabled using system maintenance turn-off CLI.		

Parent Defect ID:	SLXOS-76305	**Issue ID:**	SLXOS-76305
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1a
Technology Group:	Management	**Technology:**	SNMP - Simple Network

			Management Protocol
Symptom:	Unexpected reload of the device		
Condition:	The device has 2 scripts running in parallel. First one to create and then delete the port-channel; and a second script to fetch the port-channel interface counters		

Parent Defect ID:	SLXOS-76035	**Issue ID:**	SLXOS-76370
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1
Technology Group:	Other	**Technology:**	Other
Symptom:	For customer, Unqualified message is seen for the Smart optic after the reboot or when the optic is inserted.		
Condition:	When the smart optic (IN-Q2AY2-59) is used.		

Parent Defect ID:	SLXOS-76399	**Issue ID:**	SLXOS-76399
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1
Technology Group:	Management	**Technology:**	SNMP - Simple Network Management Protocol
Symptom:	Insight port is displayed on SNMP query		
Condition:	SNMP query for interfaces on Extreme 8820 platform		

Parent Defect ID:	SLXOS-76418	**Issue ID:**	SLXOS-76419
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1b_CVR
Technology Group:	Other	**Technology:**	Other
Symptom:	optical monitor support field shows as 'No' in both "show media" and "show media optical-monitoring" outputs.		
Condition:	the issue is seen when Smart Optics are used.		

Parent Defect ID:	SLXOS-76448	**Issue ID:**	SLXOS-76448
Severity:	S3 - Moderate		
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.6.1a
Technology Group:	Traffic Management	**Technology:**	Traffic Queueing and Scheduling
Symptom:	Unable to configure the "cee" map profile at interface level		
Condition:	If the platform belongs to either of 8520-48XT or 8520-48Y		

Defects Closed without Code Changes

The following software defects were closed in SLX-OS 20.6.2 without code changes as of June 2024:

Parent Defect ID:	SLXOS-65379	**Issue ID:**	SLXOS-66289
Reason Code:	Third Party Issue	**Severity:**	S2 - Major
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.2.3j
Technology Group:	MPLS	**Technology:**	MPLS VPLS - Virtual Private LAN Services
Symptom:	MPLS encapsulated 'Unicast ICMP with destination MAC starts on 4' traffic fails to forward from 9740(PHP/P) to 9850(PE).		
Condition:	a) Establish VPLS session between 9850 & MLX with adding 9740 as Transit Node. b) Initiate traffic with destination MAC starts with 4 from CE to CE.		

Parent Defect ID:	SLXOS-74036	**Issue ID:**	SLXOS-74036
Reason Code:	Already Implemented	**Severity:**	S2 - Major
Product:	SLX-OS	**Reported in Release:**	SLX-OS 20.3.4b
Technology Group:	IP Multicast	**Technology:**	IGMP - Internet Group Management Protocol
Symptom:	mc_hms daemon reload.		
Condition:	On reception of IGMP packet (AF_IGMP_SNOOP,0x34) with non-multicast destination MAC.		