February 2022

Extreme networks

# Extreme SLX-OS 20.3.4

# Release Notes

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

# Contents

## Document History

| Version | Summary of changes | Publication date |
|---|---|---|
| 1.0 | Initial version for 20.3.4 | December 2021 |
| 2.0 | Added defect SLXOS-62140 to the 'Defects Closed with Code Changes' section. | February 2022 |

# Preface

## Getting Help

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- A description of any actions already taken to resolve the problem
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- Content errors, or confusing or conflicting information
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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

Release SLX-OS 20.3.4 is mainly focused on:

- SLX-OS Hardening features
- Augmented ACL and rate-limiting capabilities on SLX 9740 platform
    - IPv4 Ingress ACL based rate-limiting on VE.
    - IPv4 Egress ACL based rate-limiting.
    - IPv6 Egress ACL filtering (Both Source and Destination IPv6 with full address length)
- Forward Error Correction (FEC) changes
- Manual speed configuration for 1G ports on SLX 9150-XT & Extreme 8520-XT.

Release SLX-OS 20.3.3 is mainly focused on:

- Bring up the new hardware platforms – Extreme 8520 and Extreme 8720
- Deliver IP Fabric and data center use cases on newer HW platforms – Extreme 8520 and Extreme 8720
- Provide Trusted Delivery Solution on Service Provider Product portfolio
- Add Security features towards hardening SLX-OS

Release SLX-OS 20.3.2c provides the following features:

No new feature is added in this release.

Release SLX-OS 20.3.2b provides the following features:

- Automatic re-installation of TPVM image after device reload.
- MD5 Password support extended to BGP Dynamic Range.
- Increased the number of supported L3 MTU Profiles to seven (7) on SLX 9740.

Release SLX-OS 20.3.2a provides the following features:

- Single folder/directory support for supportsave collection
- TPVM - NETConf RPC to perform TPVM image sanity
- TPVM Upgrade enhancements – TPVM migration on legacy to config mode
- BGP multihoming with EVPN VxLAN – additional capabilities

Release SLX-OS 20.3.2 provides the following features:

- BGP Multi-homing with EVPN VxLAN
- BGP neighbor teardown-restart-interval
- Allowing 64-character length VRF name
- TPVM Enhancements for EFA use case.
    - TPVM configuration persistence.
    - SLX OS Image upgrade
    - SLX OS configuration snapshot for upgrade and rollback.
- Connection limit option for IP ACL (Management port only)

- BFD timer config at global for both single hop and multi-hop sessions
- Secure (TLS 1.2) support for gNMI streaming
- RSPAN and ERSPAN support for VLAN mirroring
- Optimize Supportsave creation in low memory conditions
- Strong encryption support
- Confidentiality and integrity of O&M traffic

Release SLX-OS 20.3.1 provides the following features:

- Support for BGP Resource Public Key Infrastructure Prefix Origin Validation
- Added support for Unified Routing
- Maintenance Mode support is now available for all devices
- Enhanced Transmission Selection is now supported
- Forced password change on first login is now enforced
- Up to 6 DNS name servers can now be assigned
- Enhanced reporting for VE Statistics for SLX 9540 and SLX 9640
- Option available to drop BPDUs on L2 ports of the switch

## Behavior Changes

The following are the behavioral changes for SLX-OS 20.3.4

> Availability of HTTP and SSH services for a newly added or operationally up interface in mgmt-vrf, requires the user to restart services. Similarly, after removing any interface from the mgmt.-vrf, the user must restart HTTP and SSH services.

The following are the behavioral changes for SLX-OS 20.3.3

> No behavioral changes were introduced in this release.

The following are the behavioral changes for SLX-OS 20.3.2c

> No behavioral changes were introduced in this release.

The following are the behavioral changes for SLX-OS 20.3.2b

- The copy default-config startup-config command now restores the TPVM (when installed).

  TPVM must be explicitly removed using the below command:

  *copy default-config startup-config* **remove-tpvm**

The following are behavioral changes for SLX-OS 20.3.2a.

- Supportsave files will be copied under a **sub directory** under the remote path provided in the support save command. *Please refer the SLX OS 20.3.2a Manageability Guide for more information.*

The following are behavioral changes for SLX-OS 20.3.2.

- TPVM CLI commands are now available under config mode.
- LIF scale reduced to 13150 with EVPN MH feature addition.
- Supportsave threshold for low memory condition is changed from 200 MB to 500 MB.

## Software Features

The following key software features are added in the SLX-OS 20.3.4 release:

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| Transmission of log event records to central log collection server | All | Supports for system logging using rsyslog over Reliable Event Logging Protocol (RELP). |
| Ability to control service bindings for listening services | All | Provides flexibility to start/stop HTTP and SSH services on VRFs by hardening the code to bind to specific VRFs |

| | | |
|---|---|---|
| Ability to disable processing of packets utilizing IP Options | All | Enables the ability to disable processing of IPv4 and IPv6 packets using IP Options |
| IPv4 Egress Rate Limiting | SLX 9740 | Adds the IPv4 ingress rate limiting support on VE interfaces, and IPv4 egress rate limiting support on all interface types (physical, PO and VE) |
| IPv6 ACL enhancement | SLX 9740 | New support for egress IPv6 ACL. IPv6 source and destination match is now supported on egress IPv6 ACL in a new ipv6-optimized profile. |
| BGP Dynamic Peering Scale Enhancement | All | Max. number of BGP Dynamic Peering sessions is increased to 1024. |
| IPv4 SNMP trap for BGP connection states as supported with IPv6 | All | Enables SNMP trap support for IPv4 BGP connection state transition. |
| 1G port on SLX 9150 and Extreme 8520 | SLX 9150-T and Extreme 8520-XT | Enables manual configuring of 1G port speed on SLX 9150-XT and Extreme 8520-XT. |
| FEC mode enhancement | SLX 9150, SLX 9250, Extreme 8720, Extreme 8520 and SLX 9740 | "no FEC" support is added. |

The following key software features are added in the SLX-OS 20.3.3 release:

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| Measured Boot with Remote Attestation | Extreme 8520 Extreme 8720 | Measured boot allows malware detection in the boot components of an SLX switch<br><br>Remote Attestation allows SLX switches to authenticate hardware and software components to a remote server (attestation server) |
| GRUB bootloader password protection | All | Add password protection to access the GRUB boot loader. |
| Support network element authentication (mutual authentication) | All | Introduces mutual authentication where client certificate is validated by a TLS party acting as a server |
| Support preservation of SSH Host Keys during all upgrades (mutual authentication) | All | Ensures SSH host keys are preserved after all upgrade procedures, esp. with fullinstall and netinstall |
| Support inactivity for user account | All | Informs user about account inactivity and lock user accounts on SLX OS for exceeded inactivity periods |

| Enforcement of least privilege | All | Enforces least access privilege for log files, bin files and text file permissions on SLX OS to minimize potential impact in the wake of any malicious attacks |
|---|---|---|
| Certificate management – expiry alert | All | Allows users to receive an early notification when Cryptographic certificates on SLX OS are nearing expiry. User can configure severity levels and period (number of days for certificate expiry) |
| Platform and Software Bring up on Extreme 8520 and Extreme 8720 | Extreme 8520 Extreme 8720 | Bring up new hardware platforms (Extreme 8520 and 8720) and support IP Fabric and data center feature set |
| L3 MTU profile support | SLX 9250 Extreme 8720 | Increases number of supported L3 MTU profiles |
| Per neighbor support for BGP Graceful Restart | All | Allowing to configure BGP Graceful Restart feature on a per-neighbor basis |
| Per-Interface Neighbor Discovery Cache Limit | All | Mitigates certain DoS attacks in IPv6 deployments that involves advertising large numbers of hosts in the same subnet and filling the IPv6 ND Cache table |
| BGP MIB support for bgp4V2PrefixGaugesTable | All | SNMP MIB support for BGP prefix gauge table |

The following key software features are added in the SLX-OS 20.3.2c release:
No new feature is added in this release.


The following key software features are added in the SLX-OS 20.3.2b release:

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| MTU Profiles support | SLX 9740 | Increased the number of supported L3 MTU Profiles to 7. |
| MD5 Password support extended to BGP Dynamic Range | All Platforms | MD5 password is supported on dynamic BGP neighbors with range options. |
| Automatic re-installation of TPVM image after resetting the device | All Platforms | By default, TPVM configuration will be retained after issuing "coping default to startup-config". User needs to explicitly configure **'remove-tpvm'** parameter of this command to prevent TPVM being automatically reinstalled. |

The following key software features are added in the SLX-OS 20.3.2a release:

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| Single folder/directory support for supportsave collection | All Platforms | Provide support to create a sub directory under the remote path provided in the support save command |

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| TPVM - NETConf RPC to perform TPVM image sanity | All Platforms | Augments current "tpvm upgrade" command to sanitize image before downloading for parameters such as length, version, host access, user/credential authentication |
| TPVM Upgrade enhancement – TPVM migration support | All Platforms | Migrate the TPVM configurations done using legacy exec commands (in releases before SLX OS 20.3.2), to running-config, during the firmware download to SLX OS 20.3.2a. |
| BGP multihoming with EVPN VxLAN | SLX 9150, SLX 9250 | Additional EVPN Multihoming support for<br><br>1) Core Isolation (Disable case)<br><br>2) IRB in multi-homed topology - L3 VNI<br><br>3) Maintenance Mode |

The following key software features are added in the SLX-OS 20.3.2 release.

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| BGP Multi-homing with EVPN VxLAN | SLX 9150<br>SLX 9250<br>Extreme 8720 | Supporting BGP EVPN VxLAN based multi-homing clients. |
| BGP neighbor teardown-restart-interval | All Platforms | To support automatic restart of BGP neighbor restarts after a teardown due to prefix-limit. |
| Allowing 64-character length VRF name | All Platforms | VRF name length is increased to 64 characters. |
| TPVM Image Upgrade via EFA and Configuration Persistence | All Platforms | TPVM Image can be upgrade via EFA and configuration preserved. |
| Connection limit option for IP ACL (Management port only) | All Platforms | Number of connection per-IP can be limited via ConnTrack module in IP tables. |
| BFD timer config at global for both single hop and multi-hop sessions | All Platforms | BFD timer value can be configured at global level for all session. |

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| Secure (TLS 1.2) support for gNMI streaming | All Platforms | Interface counters can be streamed up via gNMI to gNMI clients. |
| RSPAN and ERSPAN support for VLAN mirroring | SLX 9150<br>SLX 9250<br>SLX 9740<br>Extreme 8720 | Support port and flow based span |
| Strong encryption support | All Platforms | Capability to control the TLS version used by SLX-OS services |
| Confidentiality and integrity of O&M traffic | All Platforms | 4096-bit SSH host key support. |
| Optimize Supportsave creation in low memory conditions | All Platforms | Depending on low system memory conditions hitting threshold (500 MB), support save creation will automatically move to basic support save. |

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| TPVM Configuration Persistence | All Platforms | New config mode added to `deploy tpvm` and related TPVM configurations. When these TPVM configuration are persisted at SLX-OS config database too, they can be displayed by `show running-config tpvm` and other `show` commands<br><br>Earlier, TPVM could be installed using the `tpvm install` or `tpvm deploy` or other similar commands. The configurations were applied using the `tpvm config` set of commands. These applied configurations were retained by the TPVM Guest OS. These configurations were available for use only when the switch rebooted.<br><br>But across upgrade and SLX switch RMA, manual re-applying was needed on new installation.<br><br>In the new mode, along with the new TPVM Upgrade CLIs, upgrade or RMA like operation becomes seamless and the device admin need not re-apply previously configured TPVM settings.<br><br>For more information on configuring TPVM Configuration Persistence, refer the 'Management Configuration Guide' for SLX-OS 20.3.2.<br><br>Note: Both modes of installation are allowed for backward compatibility, However, only one TPVM can be installed. It is recommended to use one of these two modes and not mix. |
| TPVM Upgrade | All Platforms | New CLI to download new TPVM image.<br>If SLX had any previously deployed TPVM as per new mode introduced in this release SLX-OS 20.3.2, then that will be stop/uninstalled and new image shall be deployed and previously set TPVM configurations will be applied too.<br><br>For more information on configuring TPVM Configuration Persistence, refer the 'Management Configuration Guide' for SLX-OS 20.3.2. |

| Feature Name | Supported SLX Platforms | Description |
|---|---|---|
| TPVM snapshot | All Platforms | Installed TPVM snapshot (backup) can be taken manually or as part of `tpvm upgrade` CLI. If admin finds upgrade failed or for any reason, TPVM instance can be reverted to backup instance. Note: in-between configs should not be updated and only one snapshot instance is supported.<br><br>For more information on configuring TPVM Configuration Persistence, refer the 'Management Configuration Guide' for SLX-OS 20.3.2. |

# CLI Commands

The following commands were added, modified, or deprecated for the 20.3.4 program

## New commands for 20.3.4

- logging utility
- ipv6 option disable
- undeploy-force (tpvm)

## Modified commands for 20.3.4

- speed (ethernet)
- service-policy (interface)
- fec mode (interface)
- ip option disable

## Deprecated commands for 20.3.4

No commands were deprecated in this release.

The following commands were added, modified, or deprecated for the 20.3.3 program

## New commands for 20.3.3

- agent-enable
- agent-uuid
- agent-port
- core-isolation-track
- crypto cert
- enable (GRUB)
- grub
- measured-boot enable
- neighbor graceful-restart
- registrar-server
- registrar-port
- show core-isolation track
- show remote-attestation
- username (GRUB)

## Modified commands for 20.3.3

- crypto ca import-pkcs
- crypto import
- ipv6 nd cache interface-limit
- show policy-map
- tpvm config hostname
- username
- hostname (tpvm mode)

## Deprecated commands for 20.3.3

No commands were deprecated in this release.

The following commands were added, modified, or deprecated for the 20.3.2c program

## New commands for 20.3.2c

No commands are added in this release.

## Modified commands for 20.3.2c

No commands are modified in this release.

## Deprecated commands for 20.3.2c

No commands are deprecated in this release.

The following commands were added, modified, or deprecated for the 20.3.2b program

## New commands for 20.3.2b

No commands are added in this release

## Modified commands for 20.3.2b

- copy default-config startup-config

## Deprecated commands for 20.3.2b

No commands are deprecated in this release.

The following commands were added, modified, or deprecated for the 20.3.2a program

## New commands for 20.3.2a

- tpvm fileinfo
- tpvm download
- core-isolation-disable
- lacp system-id

## Modified commands for 20.3.2a

- neighbor password
- ip ospf md5-authentication
- area authentication
- ip vrrp-extended auth-type
- auth-key
- isis auth-key
- tpvm upgrade

## Deprecated commands for 20.3.2a

- neighbor accept-lldp-neighbors

The following commands were added, modified, or deprecated for the 20.3.2 program

## New commands for 20.3.2

- auto-boot (tpvm mode)
- Ethernet-segment
- Esi
- gnmi server
- interface management (tpvm mode)
- ip route static bfd
- management-security
- neighbor <IPv4/v6> maximum-prefix <maxprefixcount> teardown restart-interval <interval>
- password (tpvm mode)
- ssl-profile
- tls min-version
- tpvm (mode)
- hostname (tpvm mode)
- timezone (tpvm mode)
- dns (tpvm mode)
- ntp (tpvm mode)
- ldap (tpvm mode)
- ldap ca-cert (tpvm mode)
- trusted-peer (tpvm mode)
- tpvm deploy (tpvm mode)
- tpvm snapshot
- tpvm upgrade (tpvm mode)

## Modified commands for 20.3.2

- acl-mirror
- crypto ca import-pkcs
- crypto import
- ip access-list extended
- ipv6 access-list extended
- ip route static bfd
- ssh server key
- show ip/ipv6 bgp neighbor
- show tpvm status

  It adds one additional line of information to indicate "*additional status*".

  E.g.

  ```
  SLX# show tpvm status
  SSH and Sudo passwordless      :Enabled
  AutoStart                 :Enabled
  Tpvm status               :Running
  Tpvm version              :4.2.5
  Tpvm additional status        :normal
  ```

It is mainly set to **normal**, implying rest of above fields are normal. But if upgrade or deploy, is issued, then it reflects transiting state of that operation. For success completion, it again gets value "normal" else reflect error state.

- switchport access
- switchport trunk allowed

## Deprecated commands for 20.3.2

- qos cos cos_value

The following commands were added, modified, or deprecated for the 20.3.1 program

## New commands for 20.3.1

- bestpath prefix-validation disable
- bestpath prefix-validation disallow-invalid
- cee
- cee-map
- import l2vpn evpn reoriginate
- import vpnv4 unicast reoriginate
- import vpnv6 unicast reoriginate
- match rpki
- neighbor announce rpki state
- priority-group-table
- priority-table
- rpki priority
- server ssh
- server tcp
- show cee-map default

## Modified commands for 20.3.1

- bpdu-drop-enable
- clear ip bgp rpki server
- clear counters
- clear counters access-list
- ip dns
- ip access-list
- password-attributes
- profile counters
- monitor session
- show lldp neighbors
- show system maintenance
- show ip bgp rpki details
- show ip bgp rpki server summary
- show ip bgp rpki table

- show ip bgp routes
- show hardware profile
- show interface stats detail
- show access-list
- show statistics access-list
- system maintenance
- system maintenance turn-off

## Deprecated commands for 20.3.1

- match uda
- seq (deny/permit rules in UDAs)
- set uda interface null0
- show running-config uda access-list
- show running-config uda-key profile
- uda access-group
- uda access-list
- uda policy route-map
- uda-key profile
- uda-offsets
- uda-profile-apply

# 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. |
| 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. |

| Supported devices | Description |
|---|---|
| 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 |
| 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 |
| 8000-PRMR-LIC-P | Extreme 8000 Premier Feature License (includes Integrated Application Hosting) |
| 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 |

| Supported devices | Description |
| --- | --- |
| 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) |

## 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. |
| 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. |
| XN-ACPWR-1600W-F | SLX 9740 Fixed AC 1600W Power Supply Front to Back. Power cords not included. |
| 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-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 |

## 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<br>Disabled |
| 100G | SR4 | RS-FEC | RS-FEC<br>Disabled |
| 100G | LR4 | Disabled | RS-FEC<br>Disabled |
| 25G | Breakout DAC SR | Auto-Neg | RS-FEC<br>FC-FEC<br>Auto-Neg<br>Disabled |
| 25G | Breakout SR4 | FC-FEC | RS-FEC<br>FC-FEC<br>Disabled |

SLX 9740

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

SLX 9150 and Extreme 8520

| Port Type | Media Type | Default FEC Mode | Supported FEC Modes |
|---|---|---|---|
| 100G | Passive DAC | RS-FEC | RS-FEC<br>Disabled |

| | | | |
|---|---|---|---|
| 100G | SR4 | RS-FEC | RS-FEC<br>Disabled |
| 100G | LR4 | Disabled | RS-FEC<br>Disabled |
| 25G(Native) | DAC | Auto-Neg | RS-FEC<br>FC-FEC<br>Auto-Neg<br>Disabled |
| 25G(Native) | SFP | FC-FEC | RS-FEC<br>FC-FEC<br>Disabled |

SLX 9540 and SLX 9640

| Port Type | Media Type | Default FEC Mode | Supported FEC Modes |
|---|---|---|---|
| 100G | Passive DAC | RS-FEC | RS-FEC<br>Disabled |
| 100G | SR4 | RS-FEC | RS-FEC<br>Disabled |
| 100G | LR4 | Disabled | RS-FEC<br>Disabled |

# Software Download and Upgrade

For more information about the various methods of upgrading to SLX-OS 20.3.4, see the *Extreme SLX-OS Software Upgrade Guide.*

## Image files

Download the following images from [www.extremenetworks.com](www.extremenetworks.com).

| Image file name | Description |
|---|---|
| SLX-OS_20.3.4.tar.gz | SLX-OS 20.3.4 software |
| SLX-OS_20.3.4_mibs.tar.gz | SLX-OS 20.3.4 MIBS |
| SLX-OS_20.3.4.md5 | SLX-OS 20.3.4 md5 checksum |
| SLX-OS_20.3.4-digests.tar.gz | SLX-OS 20.3.4 sha checksum |
| SLX-OS_20.3.4-releasenotes.pdf | Release Notes |

**Notes**:

Upgrade to 20.3.x from earlier releases requires "fullinstall" due to change in glibc for all platforms.

## Extreme 8720

| To<br>From | 20.2.3x | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|
| **20.2.3(MFG)** | Use the normal Firmware Download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.3ab** | Use the normal Firmware Download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.3x** | NA | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.3.2/a/b** | Use fullinstall | NA | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. |
| **20.3.2c/d** | Use fullinstall | Use the normal Firmware Download / coldboot | NA | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. |
| **20.3.3** | Use fullinstall | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | NA | Use the normal Firmware Download / coldboot |
| **20.3.4** | Use fullinstall | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | | NA |

## SLX 9740

| To<br><br>From | 20.2.2x | 20.2.3_CR | 20.2.3x | 20.3.1 | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|---|---|---|
| **20.2.1a** | Usethe normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.2x** | Use the normal Firmware Download / coldboot* | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.3_CR** | Use the normal Firmware Download / coldboot | NA | Use the normal Firmware Download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.3x** | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | NA | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.3.1** | Use fullinstall | Use fullinstall | Use fullinstall | NA | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. |
| **20.3.2/a/b** | Use fullinstall | Use fullinstall | Use fullinstall | Use the normal | NA | Use the normal | Use the normal | Use the normal |

| From \ To | 20.2.2x | 20.2.3_CR | 20.2.3x | 20.3.1 | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|---|---|---|
| | | | | Firmware Download / coldboot | | Firmware Download / coldboot. For downgrade use fullinstall. | Firmware Download / coldboot. For downgrade use fullinstall. | Firmware Download / coldboot. For downgrade use fullinstall. |
| 20.3.2c/d | Use fullinstall | Use fullinstall | Use fullinstall | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | NA | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. |
| 20.3.3 | Use fullinstall | Use fullinstall | Use fullinstall | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | NA | Use the normal Firmware Download / coldboot. |
| 20.3.4 | Use fullinstall | Use fullinstall | Use fullinstall | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | NA |

*within the patches

**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 there for upgrade/downgrade between 20.2.3x and 20.3.x releases.

## SLX 9540 and SLX 9640

| To ⟍<br><br>From | 20.2.2a/b/c | 20.2.3a to 20.2.3h | 20.3.1 | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|---|---|
| 18r.2.00, 18r.2.00 a/b/c | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.2.2a/b/c using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 18r.2.00d via fullinstall.<br>2. Then upgrade to 20.1.2h using fullinstall.<br>3. Then upgrade to 20.2.2a/b/c using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to targeted 20.2.3 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 18r.2.00d via fullinstall.<br>2. Then upgrade to 20.1.2h using fullinstall.<br>3. Then upgrade to targeted 20.2.3 version using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.1 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 18r.2.00d via fullinstall.<br>2. Then upgrade to 20.1.2h using fullinstall.<br>3. Then upgrade to 20.3.1 version using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to targeted 20.3.2 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 18r.2.00d via fullinstall.<br>2. Then upgrade to 20.1.2h using fullinstall.<br>3. Then upgrade to targeted 20.3.2 version using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.2d version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 18r.2.00d via fullinstall.<br>2. Then upgrade to 20.1.2h using fullinstall.<br>3. Then upgrade to 20.3.2d version using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.3 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 18r.2.00d via fullinstall.<br>2. Then upgrade to 20.1.2h using fullinstall.<br>3. Then upgrade to 20.3.3 version using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.4 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 18r.2.00d via fullinstall.<br>2. Then upgrade to 20.1.2h using fullinstall.<br>3. Then upgrade to 20.3.4 version using fullinstall. |
| 18r.2.00 d | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall. |

| To<br><br>From | 20.2.2a/b/c | 20.2.3a to 20.2.3h | 20.3.1 | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|---|---|
| | 2. Then upgrade to 20.2.2a/b/c using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.2.2a/b/c using fullinstall. | 2. Then upgrade to targeted 20.2.3 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to targeted 20.2.3 version using fullinstall. | 2. Then upgrade to 20.3.1 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.1 version using fullinstall. | 2. Then upgrade to targeted 20.3.2 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to targeted 20.3.2 version using fullinstall. | 2. Then upgrade to 20.3.2d version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.2d version using fullinstall. | 2. Then upgrade to 20.3.3 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.3 version using fullinstall. | 2. Then upgrade to 20.3.4 version using fullinstall.<br><br>For SLX 9640:<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.4 version using fullinstall. |
| 20.1.1 | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.2.2a/b/c using fullinstall.<br><br>For SLX 9640:<br><br>Use fullinstall.. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to targeted 20.2.3 version using fullinstall.<br><br>For SLX 9640:<br><br>Use fullinstall.. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.1 version using fullinstall.<br><br>For SLX 9640:<br><br>Use fullinstall.. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to targeted 20.3.2 version using fullinstall.<br><br>For SLX 9640:<br><br>Use fullinstall.. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.2d version using fullinstall.<br><br>For SLX 9640:<br><br>Use fullinstall.. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.3 version using fullinstall.<br><br>For SLX 9640:<br><br>Use fullinstall.. | For SLX 9540 :<br><br>1. First upgrade to 20.1.2h using fullinstall.<br>2. Then upgrade to 20.3.4 version using fullinstall.<br><br>For SLX 9640:<br><br>Use fullinstall.. |
| 20.1.2e, g | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |

| To / From | 20.2.2a/b/c | 20.2.3a to 20.2.3h | 20.3.1 | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|---|---|
| 20.2.1a | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| 20.2.2x | NA | Use the normal Firmware Download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| 20.2.3x | Use the normal Firmware Download / coldboot | NA | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| 20.3.1 | Use fullinstall | Use fullinstall | NA | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. |
| 20.3.2/a/b | Use fullinstall | Use fullinstall | Use the normal Firmware Download / coldboot | NA | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. |
| 20.3.2c/d | Use fullinstall | Use fullinstall | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | NA | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. | Use the normal Firmware Download / coldboot. For downgrade use fullinstall. |

| From \ To | 20.2.2a/b/c | 20.2.3a to 20.2.3h | 20.3.1 | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|---|---|
| 20.3.3 | Use fullinstall | Use fullinstall | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | NA | Use the normal Firmware Download / coldboot |
| 20.3.4 | Use fullinstall | Use fullinstall | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | Use the normal Firmware Download / coldboot | NA |

**Notes**:

- When upgrading from the 18r.1.00x and 18r.2.00a and earlier patches, upgrade first to 18r.2.00bx and then to 20.2.2x, which is a two-step upgrade procedure.
- The MCT upgrade procedure from 18r.2.00bc to 20.2.x is detailed in the *Extreme SLX-OS Software Upgrade Guide.*
- Because SLX 9540 is a bare metal device, use the "fullinstall" option to migrate between the SLX-OS 20.2.2x and SLX-OS 20.1.x releases.
- Because SLX9540 is moved to the bare metal mode in 20.2.1, use 'fullinstall' when migrating between SLX-OS 20.2.2x and SLX-OS 2.1.x releases.
- 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
- Downgrading from 20.3.x/20.2.2x/20.2.3x to 20.1.1 may not require a 2-step procedure.

## SLX 9150 and SLX 9250

| To / From | 20.2.2x | 20.2.3_CR | 20.2.3x | 20.3.1 | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|---|---|---|
| **20.1.1** | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.1.2x** | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.1x** | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.2x** | Use the normal firmware download / coldboot* | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.3_CR** | Use the normal firmware download / coldboot | NA | Use the normal firmware download / coldboot | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |
| **20.2.3x** | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | NA | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall | Use fullinstall |

| From \ To | 20.2.2x | 20.2.3_CR | 20.2.3x | 20.3.1 | 20.3.2/a/b | 20.3.2c/d | 20.3.3 | 20.3.4 |
|---|---|---|---|---|---|---|---|---|
| 20.3.1 | Use fullinstall | Use fullinstall | Use fullinstall | NA | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot |
| 20.3.2/a/b | Use fullinstall | Use fullinstall | Use fullinstall | Use the normal firmware download / coldboot | NA | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot |
| 20.3.2c/d | Use fullinstall | Use fullinstall | Use fullinstall | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | NA | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot |
| 20.3.3 | Use fullinstall | Use fullinstall | Use fullinstall | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | NA | Use the normal firmware download / coldboot |
| 20.3.4 | Use fullinstall | Use fullinstall | Use fullinstall | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | Use the normal firmware download / coldboot | NA |

*within the patches

## Extreme 8520

| To<br>From | 20.3.3 | 20.3.4 |
|---|---|---|
| **20.3.3** | NA | Use the normal Firmware Download / coldboot |
| **20.3.4** | Use the normal Firmware Download / coldboot | NA |

## SLX TPVM Support Matrix for 9150 and 9250, Extreme 8520 and Extreme 8720

| SLX Build | TPVM – Fresh Install Supported | EFA |
|---|---|---|
| 20.2.2 | TPVM-4.1.1 | EFA-2.3 |
| 20.2.2a | TPVM-4.1.2 | EFA-2.3.x |
| 20.2.2b | TPVM-4.1.2 | EFA-2.3.x |
| 20.2.3 | TPVM-4.2.2 | EFA-2.4.x, EFA-2.3.x |
| 20.2.3a | TPVM-4.2.3 | EFA-2.4.x, EFA-2.3.x, EFA-2.5x * |
| 20.3.1 | TPVM-4.2.4 | EFA-2.4.x |
| 20.3.2/a/b/c | TPVM-4.2.5 | EFA-2.4.x, EFA-2.5x |
| 20.3.2d | TPVM-4.3.0 | EFA-2.4.x, EFA-2.5x |
| 20.3.3 | TPVM-4.2.5 | EFA-2.5x |
| 20.3.4 | TPVM-4.4.0 | EFA-2.5x |

* EFA-2.4.x feature parity in 20.2.3d

**Note**:
Extreme 8720 and Extreme 8520 are supported from 20.3.3 onwards.

## 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
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, 20.3.4

- 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, take the following steps:
  - Upgrade to SLX-OS 20.3.x, 20.2.3/x with existing TPVM continue to run
  - Remove 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`.

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, as a best practice make a backup and then delete the old disks. Use the **tpvm disk remove name <disk name>** command, 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 the 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.

**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, only "/apps" partition and its data are 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" automatically takes only EFA database backup and not backup of EFA installation.**"

**Notes**:

Security updates are added to the TPVM, there is a change in size of TPVM image to ~2.3 GB. This TPVM package contains Ubuntu security patches available up to 11th November, 2021.
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, 20.3.4

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 plan to delete disk vdb (i.e. 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 new mode does not support new disk creation. Old "tpvm disk add" can be used.

4. As simple example for new mode deploy:
   a. Copy new TPVM debian Image under /tftpboot/SWBD2900. Only one file should be there and no subfolder.
   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 if say "tpvm config hostname xyz" command is used. It will still work and apply on TPVM instance. But this config shall not be persisted in SLX Database and will become inconsistent. Same true for any other config done in old way.
   b. As in above example, password, management config should always be set before deploy. If required later, refer User Guide and use tpvm stop, start for such update/maintenance reason.
   c. tpvm uninstall [force], if used, then you shall need "no deploy" and deploy, in new mode.

For more information on configuring TPVM Configuration Persistence, refer the 'Management Configuration Guide' for SLX-OS 20.3.2x.

## TPVM Migration

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

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

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 …` "

# Limitations and Restrictions

## Copy flash to startup and reload with TPVM

setNTPServer and setLDAPServer statuses are reported as failed in "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.

## 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 | |

| | | |
|---|---|---|
| **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 | |
| **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 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.<br>• If 0/1 is 4x10G breakout, you cannot configure 0/3 as 4x25G breakout.<br>• If 0/3 is 4x10G breakout, you cannot configure 0/1 as 4x25G breakout.<br>• 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.<br>• 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.<br>• If 0/1 is configured as 4x25G breakout, you cannot configure 0/3 as 4x10G breakout.<br>• If 0/3 is configured as 4x25G breakout, you cannot configure 0/1 or 0/2 as 40G.<br>• 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.
- Conformed and Violated counters are not supported for egress rate limiting for SLX 9740.
- Egress rate limiting in a Bridge Domain configuration is not supported for SLX 9740.
- DSCP-COS map is not work correctly for SLX 9740.

## Others

- sflow sampling is not working 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.
- The **show running ip prefix-list <name>** command can take a long time to complete in a scaled prefix-list configuration.
- 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 supports 16K flowset entries for SLX 9740, and 32K flowset entries for SLX 9150/9250.

## 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.

## Open Defects

The following software defects are open in SLX-OS 20.3.4 as of **December 2021**:

| Parent Defect ID: | SLXOS-40754 | Issue ID: | SLXOS-40754 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.1 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BFD - BiDirectional Forwarding Detection |
| Symptom: | BFD sessions will flap and bring down associated client sessions bound to it. | | |
| Condition: | Maximum Supported IPv4 Multi-hop BFD session is 16. When IPv4 BFD Multi-hop session count exceeds 16, BFD sessions will flap. | | |

| Parent Defect ID: | SLXOS-42488 | Issue ID: | SLXOS-42488 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.1 |
| Technology Group: | Other | Technology: | Other |
| Symptom: | "show running-config ip prefix-list <list-name>" on specific prefix-list sometimes doesnt work | | |
| Condition: | issue is observed during highly scaled scale prefix-list configurations | | |
| Workaround: | use<br>show running-config ip prefix-list<br>show running-config<br>show running-config ip prefix-list \| include <prefix-list-name> | | |

| Parent Defect ID: | SLXOS-46276 | Issue ID: | SLXOS-46276 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.1 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | The remote end tunnel retains old VTEP IP when VTEP IP is changed at the local end | | |
| Condition: | When tunnel VTEP IP is changed locally, some of the evpn IMR routes for old VTEP IP are not withdrawn. Hence old tunnel exists at remote end. | | |
| Workaround: | When VTEP IP is modified, please issue "clear bgp evpn neighbor all" | | |

| Parent Defect ID: | SLXOS-46419 | Issue ID: | SLXOS-46419 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.1 |
| Technology Group: | Monitoring | Technology: | Port Mirroring |

| Symptom: | QoS service-policy configuration is not allowed on a mirror destination port-channel. |
|---|---|
| Condition: | Configure a port-channel as mirror destination and configure a service-policy under this port-channel. |
| Workaround: | Remove mirror configuration and add service-policy under this port-channel. <br> Reconfigure mirror session with this port-channel as mirror destination. |

| Parent Defect ID: | SLXOS-47644 | Issue ID: | SLXOS-47644 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.1 |
| Technology Group: | Security | Technology: | ACLs - Access Control Lists |
| Symptom: | OSPF neighbourship doesn't go down after applying IP ACL on the interface | | |
| Condition: | Applying IP ACL after OSPF neighbourship up. | | |
| Workaround: | Clear OSPF neighbourship after IP ACL applied. | | |

| Parent Defect ID: | SLXOS-50693 | Issue ID: | SLXOS-50693 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.1 |
| Technology Group: | Traffic Management | Technology: | Rate Limiting and Shaping |
| Symptom: | Display summation of forwarded and dropped packets for the confirmed counter | | |
| Condition: | Applying Egress Rate Limit on bridge domain and checking the statistics with "show stat bridge-domain x" | | |

| Parent Defect ID: | SLXOS-51794 | Issue ID: | SLXOS-51822 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.1 |
| Technology Group: | Traffic Management | Technology: | QoS - Quality of Service |
| Symptom: | Virtual output queue statistics of traffic manager are not incrementing for priority traffic classes. | | |
| Condition: | Traffic manager CLI command: "show tm voq-stat" is executed. | | |

| Parent Defect ID: | SLXOS-49454 | Issue ID: | SLXOS-52076 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.1 |
| Technology Group: | Management | Technology: | CLI - Command Line Interface |

| Symptom: | Sometimes, show running-config ip prefix-list <name> takes around 25 mins to display output |
|---|---|
| Condition: | Issue is seen when the user is querying for a specific prefix-list while the device has highly scaled prefix list configuration |
| Workaround: | Use "show running-config ip prefix-list" or "show ip prefix-list <name>" |

| Parent Defect ID: | SLXOS-52329 | Issue ID: | SLXOS-52329 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.1a |
| Technology Group: | IP Multicast | Technology: | IGMP - Internet Group Management Protocol |
| Symptom: | The IGMP querier node does not receive IGMP joins on Multicast tunnel even though there are receivers present on other LVTEP. This causes IGMP group entry expiry after the time-out. | | |
| Condition: | 1. There should be MCT nodes acting as a leaf (LVTEP) and receiver should be connected to CCEP client or CEP port.<br>2. The MDT Rx path is on one MCT peer and MDT Tx path is on other MCT peer.<br>3. IGMP Query should be received on Multicast tunnel.<br>4. IGMP report should land on the peer which is having MDT Rx path. | | |
| Workaround: | If Source or Receiver is connected to one of the MCT nodes, then it is recommended to configure IGMP snooping querier for the vlan or Bridge domain on both the MCT peers. | | |

| Parent Defect ID: | SLXOS-52506 | Issue ID: | SLXOS-52506 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.1a |
| Technology Group: | Management | Technology: | Other |
| Symptom: | Netconf request to configure ip prefix-list without providing sequence number fails and returns error. | | |
| Condition: | Issue exists only for configuration via Netconf | | |
| Workaround: | Workaround is to provide sequence number value in the Netconf request while configuring ip prefix-list | | |

| Parent Defect ID: | SLXOS-52599 | Issue ID: | SLXOS-52599 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.1a |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | IPv6 Addressing |
| Symptom: | /127 prefix routes are accepted and traffic is dropped for them. | | |
| Condition: | If route profile "ipv6-max-prefix64" is enabled on SLX 9150, or SLX 9250 | | |

| Parent Defect ID: | SLXOS-52746 | Issue ID: | SLXOS-53722 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.1a |
| Technology Group: | Monitoring | Technology: | sFlow |
| Symptom: | S-flow will not work for Virtual leased lines interface | | |
| Condition: | When Storm control is applied on Virtual leased lines interface | | |

| Parent Defect ID: | SLXOS-55198 | Issue ID: | SLXOS-55198 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2a |
| Technology Group: | Management | Technology: | Other |
| Symptom: | "no fec mode " CLI support is removed | | |
| Condition: | "no fec mode " CLI support is removed and due to this the User will not be able to go to Default FEC mode on specified port. | | |
| Workaround: | User can do Explicit FEC Configuration either Enable with appropriate FEC mode or Disable FEC for specified port. | | |

| Parent Defect ID: | SLXOS-55243 | Issue ID: | SLXOS-55243 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2a |
| Technology Group: | Security | Technology: | HTTP/HTTPS |
| Symptom: | Extreme switch bootup logs reports(sometimes) unavailable file (/usr/sbin/httpd.0) | | |
| Condition: | Issue is seen after restarting HTTP(S) server multiple times | | |

| Parent Defect ID: | SLXOS-55266 | Issue ID: | SLXOS-55266 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2a |
| Technology Group: | Layer 2 Switching | Technology: | VLAN - Virtual LAN |
| Symptom: | On SLX 9740, ARP is not resolved and Source mac is not learned when the incoming IP packets are Priority Tagged (Vlan-0 with PCP bit set). | | |
| Condition: | The connected device to the switch is configured to send Priority tagged packets on an untagged port. The source MACs are not learnt from IP packets on the switch. | | |
| Workaround: | Use DSCP instead of using Priority tagging for QoS. | | |
| Recovery: | No known recovery methods available. | | |

| Parent Defect ID: | SLXOS-55569 | Issue ID: | SLXOS-55569 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.2c |
| Technology Group: | Layer 2 Switching | Technology: | VLAN - Virtual LAN |
| Symptom: | L2 Loop not detected and blocked | | |

| Condition: | Loop-detection feature doesn't detect and block L2 loop when provisioned on Ethernet or Port-channel interface |
|---|---|
| Workaround: | Configure loop-detection on VLAN to which Ethernet or Port-channel is member. This will detect the loop and block it. |

| Parent Defect ID: | SLXOS-55586 | Issue ID: | SLXOS-55586 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.2a |
| Technology Group: | Monitoring | Technology: | sFlow |
| Symptom: | SFLOW not working as expected | | |
| Condition: | monitoring inbound and outbound traffic with Netflow | | |

| Parent Defect ID: | SLXOS-56576 | Issue ID: | SLXOS-56576 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2a |
| Technology Group: | Other | Technology: | Other |
| Symptom: | On SLX 9740, when the user upgrades software from 20.2.2a to a later release, device becomes unreachable when accessing through an in-band port. | | |
| Condition: | Software upgrade through in-band port. | | |

| Parent Defect ID: | SLXOS-56675 | Issue ID: | SLXOS-56675 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3a |
| Technology Group: | Other | Technology: | Other |
| Symptom: | WARNING message, Unqualified SFP transceiver for interface Ethernet 0/x is detected. | | |
| Condition: | Insert 100G LR4 optic (EQPT1H4LR4LCL100) optics. | | |

| Parent Defect ID: | SLXOS-56861 | Issue ID: | SLXOS-56861 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2b |
| Technology Group: | Other | Technology: | Other |
| Symptom: | Sometimes, a unrelated interface can go down when an optic is inserted. | | |
| Condition: | A new optic is inserted in SLX 9740. | | |

| Parent Defect ID: | SLXOS-57031 | Issue ID: | SLXOS-57031 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.1 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |

| Symptom: | SLXOS BGP process may crash and router will get rebooted |
|---|---|
| Condition: | If the user tries to remove L2VPN EVPN address family |
| Workaround: | Deactivate BGP neighbors under L2VPN EVPN address family. And then remove the L2VPN EVPN address family. |

| Parent Defect ID: | SLXOS-57274 | Issue ID: | SLXOS-57274 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2b |
| Technology Group: | Management | Technology: | CLI - Command Line Interface |
| Symptom: | On execution of "show run route-map" command with route map name like "show run route-map <route-map-name>" it throws error. | | |
| Condition: | Issue is seen when "show run route-map" command is invoked with route map name. | | |
| Workaround: | As a workaround command "show run route-map" can be executed and it will display the output for all configured route maps. | | |

| Parent Defect ID: | SLXOS-57174 | Issue ID: | SLXOS-57432 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3b |
| Technology Group: | Management | Technology: | Other |
| Symptom: | System memory usage increases slowly over time while being managed by EFA | | |
| Condition: | Memory increase is seen when EFA frequently polls SLX for updates and health checks | | |

| Parent Defect ID: | SLXOS-55211 | Issue ID: | SLXOS-57437 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2a |
| Technology Group: | Management | Technology: | Other |
| Symptom: | Command is not successful and displays an error saying "Cannot resolve hostname" | | |
| Condition: | Usage of  "copy" command with FTP protocol and IPV6 address . | | |
| Workaround: | Use IPv4 interface address | | |

| Parent Defect ID: | SLXOS-56401 | Issue ID: | SLXOS-57443 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3 |
| Technology Group: | Other | Technology: | Other |
| Symptom: | The following Brocade branded 4x10G breakout DAC modules are not detected sometimes. The affected module SKU's are  40G-DACP-QSFP4SFP1M, 40G-DACP-QSFP4SFP3M, 40G-DACP-QSFP4SFP5M | | |
| Condition: | Over a period of time, the issue is seen from a corruption in the EEPROM MSA programming | | |

| Parent Defect ID: | SLXOS-56740 | Issue ID: | SLXOS-57454 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3a |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | Convergence times > 500 msec are seen for South - North traffic when a port from Border Leaf to L3 gateway is shut | | |
| Condition: | This is a test for convergence numbers. The port between a Border Leaf and an L3 gateway is shut which forces the BL to reprogram the next hop for the South - North traffic to go over the ICL. The convergence times vary and there are occasional spikes between 800 to 1000 msec. | | |

| Parent Defect ID: | SLXOS-57371 | Issue ID: | SLXOS-57471 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3b |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BFD - BiDirectional Forwarding Detection |
| Symptom: | Few BFD sessions will flap once during system bring up. | | |
| Condition: | On 9740,during system bring up after reload. | | |

| Parent Defect ID: | SLXOS-57721 | Issue ID: | SLXOS-57721 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2b |
| Technology Group: | Management | Technology: | CLI - Command Line Interface |
| Symptom: | When we are pinging the destination with the domain name, output will be in decimal format(IP address instead of domain name) | | |
| Condition: | When the firmware is SLXOS 20.1.2, SLXOS 20.2.1 or above ping will have the output in IP address instead of domain name. | | |

| Parent Defect ID: | SLXOS-57738 | Issue ID: | SLXOS-57738 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.2f |
| Technology Group: | MPLS | Technology: | IP over MPLS |
| Symptom: | Hops are not displayed in IPoMPLS trace | | |
| Condition: | During traceroute of IPoMPLS traffic | | |

| Parent Defect ID: | SLXOS-57753 | Issue ID: | SLXOS-57853 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |

| Product: | SLX-OS | Reported in Release: | SLXOS 18r.1.00h |
|---|---|---|---|
| Technology Group: | MPLS | Technology: | LDP - Label Distribution Protocol |
| Symptom: | Unexpected reload. | | |
| Condition: | On continuous MPLS interface flap for every 60 seconds run for minimum 5 hrs, to re-establish LDP tunnels. | | |

| Parent Defect ID: | SLXOS-57929 | Issue ID: | SLXOS-57929 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 18r.2.00b |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | Possible unexpected reload may be observed | | |
| Condition: | User uses cmsh CLI mode to display BGP process internal data using "show ip bgp debug command" | | |

| Parent Defect ID: | SLXOS-58198 | Issue ID: | SLXOS-58198 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3c |
| Technology Group: | Other | Technology: | Other |
| Symptom: | ICL interface is not coming up. | | |
| Condition: | After the BGP process is killed. | | |

| Parent Defect ID: | SLXOS-58576 | Issue ID: | SLXOS-58798 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3c |
| Technology Group: | Management | Technology: | Other |
| Symptom: | https not started after registration | | |
| Condition: | Device registeration. Not reproduced after last occurence. | | |
| Workaround: | Reimport certificates and perform https restart via CLI - http server use-vrf mgmt-vrf shut and no http server use-vrf mgmt-vrf shut | | |

| Parent Defect ID: | SLXOS-59050 | Issue ID: | SLXOS-59050 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2 |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | Discrepancy between the configured interface status and displayed status | | |
| Condition: | Running config shows that the interface is "no shutdown" but the interface state is shown as administratively down | | |

| Parent Defect ID: | SLXOS-59440 | Issue ID: | SLXOS-59440 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | Dynamic BGP session won't come up | | |
| Condition: | BGP session won't come up with MD5 password configuration | | |

| Parent Defect ID: | SLXOS-59457 | Issue ID: | SLXOS-59457 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.1 |
| Technology Group: | Security | Technology: | RADIUS |
| Symptom: | Unexpected reload of SLX. | | |
| Condition: | SLX may reload after many REST queries on behalf of RADIUS users when "peap-mschap" is configured as RADIUS protocol. | | |

| Parent Defect ID: | SLXOS-60172 | Issue ID: | SLXOS-60176 |
|---|---|---|---|
| Severity: | S1 - Critical | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3ea |
| Technology Group: | Other | Technology: | Other |
| Symptom: | We may see flap of any random interface during the bootup time of the device. The device can be SLX 9740, SLX 9250, Extreme 8720, SLX 9150. | | |
| Condition: | Sometimes Port flap is seen on a device during bootup. | | |

| Parent Defect ID: | SLXOS-60308 | Issue ID: | SLXOS-60308 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.1 |
| Technology Group: | Other | Technology: | Other |
| Symptom: | On SLX 9740, traffic egressing out of a router port or an L3 port channel show incorrect statistics value. | | |
| Condition: | L3 route traffic egressing out of a router port or an l3 port channel. | | |
| Workaround: | 1. Create a new VE and move the ve configuration that is exhibiting this extra counter display to the new VE. 2. Leave the previous VE in its place (it will still display all egressing traffic out of a router port or l3 po on it). | | |

| Parent Defect ID: | SLXOS-60682 | Issue ID: | SLXOS-60682 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.1 |
| Technology Group: | Other | Technology: | Other |
| Symptom: | Interface Link flap is observed. | | |
| Condition: | Speed is configured on the interface | | |

| Parent Defect ID: | SLXOS-60302 | Issue ID: | SLXOS-60754 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2a |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | Static Routing (IPv4) |
| Symptom: | Shutting down the uplink port channel from the border leaf to the L3 gateway leads to traffic convergence of nearly 1 second | | |
| Condition: | Extreme 8720 is used as the border leaf pair and SLX-9640 as L3 gateway. There are 32 VRFs configured and there are IPv4 and IPv6 routes.<br><br>There is a port-channel between the BL nodes and the gateway. The port-channel is shut at a border leaf node and the traffic is redirected from the border leaf node to its peer along the ICL. The convergence times for this are found to be more than expected.<br><br>With static routes, the convergence times are in the order of 1 second. With only BGP routes and PIC enabled, it was upto around 730 msec. | | |

| Parent Defect ID: | SLXOS-60298 | Issue ID: | SLXOS-60757 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2a |
| Technology Group: | Other | Technology: | Other |
| Symptom: | One of the BFD session over MCT flaps on cluster node. There is no visible traffic loss as such because the other MCT peer takes the traffic over ICL and forwards it to CCEP DUT (from L3 GW). | | |
| Condition: | On reload and system maintenance turn-off on an Extreme 8720 cluster node.<br>System scale:<br>32 VRFs, at least 2 BFD over MCT, 2 HW BFD and 2 BFD over VxLAN session per VRF. (one IPv4 and one IPv6) (First 20 VRFs have 10+ BFD over MCT sessions towards CCEP DUTs, last 12 VRFs have 2 BFD over MCT sessions towards CCEP DUTs)<br>All VE interfaces configured across all devices are dual stack.<br>SW BFD sessions: 393<br>HW BFD sessions: 65<br>960 IPv4 routes, 960 IPv6 routes from L3 GW.<br>960 IPv4 routes, 960 IPv6 routes from CCEP DUTs.<br>System-wide route scale: 3K IPv4 and 3K IPv6 | | |
| Workaround: | issue seen on Ve's attached to BDs. Remove the VE from BD and reconfigure. | | |

| Parent Defect ID: | SLXOS-60534 | Issue ID: | SLXOS-60767 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2a |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | ARP - Address Resolution Protocol |
| Symptom: | Traffic loss maybe seen for any particular Host. | | |
| Condition: | 1. Centralized Routing and Border Leaf has MCT cluster configured. 2. One of the MCT nodes goes for a reload. | | |

| Parent Defect ID: | SLXOS-60895 | Issue ID: | SLXOS-60895 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.1 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | The switch reloads sometime due to hslagtd deamon termination on illeagal memory access. | | |
| Condition: | In a scaled up configuration and with a very high number of routes learnt with BGP protocol. | | |

| Parent Defect ID: | SLXOS-60448 | Issue ID: | SLXOS-60912 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2a |
| Technology Group: | Management | Technology: | Configuration Fundamentals |
| Symptom: | DHCP/BOOTP request is seen sending out from mgmt. interface event after disable DHCP. | | |
| Condition: | BMC is configured as DHCP client. | | |
| Recovery: | Manually disable DHCP option from BMC . | | |

| Parent Defect ID: | SLXOS-60970 | Issue ID: | SLXOS-60970 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | On SLX 9640. while programming 500 flowspec rules to hardware, a BFD session is down due to "Detection Time Expired" which in turn terminates BGP session. Some BGP sessions flapping are due to this. | | |
| Condition: | In scaled setup, 500 BGP-flow spec rules are programmed in hardware | | |

| Parent Defect ID: | SLXOS-61003 | Issue ID: | SLXOS-61003 |
|---|---|---|---|

| Severity: | S2 - Major | | |
|---|---|---|---|
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.1 |
| Technology Group: | IP Multicast | Technology: | IGMP - Internet Group Management Protocol |
| Symptom: | PING may take more time than expected. | | |
| Condition: | 1. There should be L2 loop in the topology for a given vlan.<br>2. IGMP snooping OR PIM-SM is enabled on this interface.<br>3. IGMP query should be either received OR Generated by the node. | | |
| Workaround: | Please remove the L2 loop. | | |

| Parent Defect ID: | SLXOS-60989 | Issue ID: | SLXOS-61096 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | ARP - Address Resolution Protocol |
| Symptom: | Traffic loss maybe seen for ~4 seconds for few traffic streams | | |
| Condition: | Enable and Disable maintenance mode in one of the BL node | | |

| Parent Defect ID: | SLXOS-61120 | Issue ID: | SLXOS-61167 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3b |
| Technology Group: | Layer 2 Switching | Technology: | VLAN - Virtual LAN |
| Symptom: | Access to SLX management port is not working. | | |
| Condition: | Ping packet drop is seen if it passes through VLAN before turning back on the mgmt. interface. | | |
| Workaround: | Enable L3 VE interface on the VLAN | | |

| Parent Defect ID: | SLXOS-61209 | Issue ID: | SLXOS-61209 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | Broadcast, unknown unicast and Multicast traffic loss | | |
| Condition: | Remote client interface shutdown followed by no cluster-client auto and cluster-client auto under local client interface | | |

| Parent Defect ID: | SLXOS-60632 | Issue ID: | SLXOS-61217 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2a |
| Technology Group: | Other | Technology: | Other |
| Symptom: | Tpvm status shows "Last Runtime error" | | |
| Condition: | Upon upgrading from 20.3.2a to 20.3.2b | | |

| Recovery: | tpvm stop and tpvm start | | |
|---|---|---|---|

| Parent Defect ID: | SLXOS-60946 | Issue ID: | SLXOS-61257 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2 |
| Technology Group: | MPLS | Technology: | LDP - Label Distribution Protocol |
| Symptom: | Juniper rejects the LDP init messages sent by SLX when SLX is active, when the max pdu field is set to a value higher than default of 4096 | | |
| Condition: | SLX is active peer, and link PDU for l3 has been set to higher than 4096 | | |

| Parent Defect ID: | SLXOS-61208 | Issue ID: | SLXOS-61283 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Other | Technology: | Other |
| Symptom: | SLX 9540 device does not respond | | |
| Condition: | Taking suppotsave when the free memory is below 600Mb. | | |
| Recovery: | Power off/on the device | | |

| Parent Defect ID: | SLXOS-61458 | Issue ID: | SLXOS-61527 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Other | Technology: | Other |
| Symptom: | When the encrypted password string has "\" or "?" in the startup config, ? or \ is missed in the running-config after config restore and TPVM login will be failed | | |
| Condition: | Encrypted password string should not have these charater "\" or "?" | | |
| Workaround: | TPVM password command needs to be executed till the encrypted password string doesn't have the '\' and '?'. | | |
| Recovery: | TPVM password command needs to be executed again to recover TPVM login | | |

| Parent Defect ID: | SLXOS-60951 | Issue ID: | SLXOS-61576 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3e |
| Technology Group: | Layer 2 Switching | Technology: | LAG - Link Aggregation Group |
| Symptom: | MAC address of port-channel INTF changes when system is reloaded after performing un-config and then config of port channel interfaces. | | |
| Condition: | MAC address of port channel interfaces change in below two cases; 1. Without reload - Port-channel interfaces are configured. Some of the port-channel interfaces are un-configured, and configured again without any specific  sequence. | | |

| | |
|---|---|
| | 2. Port-channel Interfaces config and un-config is done without any particular sequence. Then config is saved and system is reloaded. |
| Workaround: | For SLX 9540, SLX 9640 and SLX 9740, Some number of port-channel INTF can be created in the incremental order interface index. ( say , port-channel 1, then port-channel 2, …, then port-channel 10 ).  Now, config can be saved, and these port-channel are kind or reserved for future use. With these steps followed, MAC address of port-channel interfaces will not change with reload as well. |

| Parent Defect ID: | SLXOS-61347 | Issue ID: | SLXOS-61598 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2c |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | In Multi-homed environment, shutdown of an LACP ES Port-channel may cause traffic flooding to other ES interfaces if the client/host device is not able to detect link flap and continue to send the traffic. Whenever LACP port-channel is shut, member ports will be disaggregated and laser will be down for few msec(around 100ms) to allow peer device to detect link event. After that link comes up and member port will be transitioned to disaggregated individual port. Some old devices may not be able to detect link flap and continue to send traffic for some more time till LACP timeout. | | |
| Condition: | Some old hosts may not be able to detect link flap when the link goes down for short period of time. SLX 9150/9250 keep the link down for 100msec before bring up the link as lacp individual. If the dual homed host is not able to detect the link flap on LACP ESI shut, the host continues to send the traffic till LACP timeout. SLX device may flood the traffic (in vlan) during that period. | | |
| Workaround: | Shutting the individual member ports along with ES port-channel avoids flooding in this scenario. | | |
| Recovery: | This situation will be recovered automatically after LACP timeout. Client device detects LACP timeout after 3sec (in case of short lacp interval), and stops traffic. | | |

| Parent Defect ID: | SLXOS-61510 | Issue ID: | SLXOS-62106 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2c |
| Technology Group: | Management | Technology: | Software Installation & Upgrade |
| Symptom: | a) If the device is reloaded, running-configs is not retained with auto persistence enable as dcmd database is not present. b) If the device is not reloaded and do a normal fwdl or fullinstall, no issue will be seen. | | |

| Condition: | If "firmware download + noreboot" is issued and later if the "firmware commit" is done and rebooted the device. |
|---|---|

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| Parent Defect ID: | SLXOS-62115 | Issue ID: | SLXOS-62126 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Management | Technology: | SNMP - Simple Network Management Protocol |
| Symptom: | SNMP trap is not sent for Loopback interface which is a VTEP, during cluster bring-up after a reload. | | |
| Condition: | Reload of switch that is in a MCT cluster. SNMP trap is not sent when an interface comes up. Issue is seen when VTEP comes up as part of cluster bring-up after reload. | | |

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| Parent Defect ID: | SLXOS-61371 | Issue ID: | SLXOS-62218 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2 |
| Technology Group: | Other | Technology: | Other |
| Symptom: | Breakout port cli command on a port-macro group, can cause other ports in same group to flap sometimes. | | |
| Condition: | Issue is seen when the breakout command is configured | | |

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| Parent Defect ID: | SLXOS-62256 | Issue ID: | SLXOS-62256 |
|---|---|---|---|
| Severity: | S1 - Critical | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | CCEP Port-channel flaps | | |
| Condition: | With more than 96 Port-channels as MCT clients, and traffic running with COS priority of 6 or 7 - when one of the MCT node is reloaded, we see some of the CCEP Port-channels flapping on other MCT node. | | |

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| Parent Defect ID: | SLXOS-62220 | Issue ID: | SLXOS-62276 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2b |
| Technology Group: | IP Multicast | Technology: | IGMP - Internet Group Management Protocol |
| Symptom: | Switch reload and Link flaps on interface. | | |
| Condition: | The switch receives igmp traffic from peer (with a large length value), on an L3 interface with no multicast configuration. | | |

| Parent Defect ID: | SLXOS-62270 | Issue ID: | SLXOS-62361 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2c |
| Technology Group: | Monitoring | Technology: | Port Mirroring |
| Symptom: | When VLAN is configured as source in monitor session , mirroring stops working after rebooting device | | |
| Condition: | Configure flow based mirroring session with VLAN as source | | |
| Workaround: | 1)Delete Monitor configuration<br>2)Remove the ACL binding from the VLAN interface<br>3)Configure monitor session with VLAN as source<br>4)Bind L2 ACL on the VLAN interface. | | |

| Parent Defect ID: | SLXOS-62440 | Issue ID: | SLXOS-62454 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2d |
| Technology Group: | Monitoring | Technology: | Port Mirroring |
| Symptom: | Flow based mirroring keeps mirroring the packets, after the monitor session is deleted. | | |
| Condition: | Flow based mirroring is configured with source as normal ethernet and L3 ACL is applied on the interface. Then monitor configuration is deleted. | | |
| Recovery: | Rebind the ACL on the mirror source interface. | | |

| Parent Defect ID: | SLXOS-62507 | Issue ID: | SLXOS-62712 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2c |
| Technology Group: | Layer 2 Switching | Technology: | VXLAN - Virtual Extensible LAN |
| Symptom: | HSLagt daemon crash | | |
| Condition: | HSLagt daemon termination is seen when VxLAN tunnel creation and deletion operations happen at very quick interval | | |

| Parent Defect ID: | SLXOS-62754 | Issue ID: | SLXOS-62754 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Security | Technology: | ACLs - Access Control Lists |
| Symptom: | On SLXOS 9740 only, BFD session flaps on an interface. | | |
| Condition: | Egress ACL and BFD are configured on the specific interface. | | |
| Workaround: | Use below permit rule for allowing the BFD packets<br>      permit udp any any eq 3784<br>      permit udp any any eq 4784 | | |

| Parent Defect ID: | SLXOS-62773 | Issue ID: | SLXOS-62773 |
|---|---|---|---|

| Severity: | S2 - Major | | |
|---|---|---|---|
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | Some BGP EVPN ND routes are not flushed in BGP EVPN table alone when one MH node comes out from MM and traffic is not getting forwarded for those ND routes | | |
| Condition: | This EVPN ND routes sync issue happens inconsistently when one MH node comes out from MM | | |

| Parent Defect ID: | SLXOS-62525 | Issue ID: | SLXOS-62811 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Other | Technology: | Other |
| Symptom: | Traffic may be dropped when packets come in via VEoVPLS tunnel. | | |
| Condition: | MAC learning events may fail when packets come in via VEoVPLS tunnel for MAC learning. | | |

| Parent Defect ID: | SLXOS-62863 | Issue ID: | SLXOS-62863 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | 1+ sec of traffic loss is observed during a border leaf reload. | | |
| Condition: | Reloading one of SLX-9740 border leaf's in a MCT configuration | | |

| Parent Defect ID: | SLXOS-60455 | Issue ID: | SLXOS-62870 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 18r.1.00ch |
| Technology Group: | Layer 2 Switching | Technology: | xSTP - Spanning Tree Protocols |
| Symptom: | RPVST flaps on SLX device | | |
| Condition: | when root bridge change occurs without any user intervention | | |

| Parent Defect ID: | SLXOS-62861 | Issue ID: | SLXOS-62897 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3g |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | VRRPv2 - Virtual Router Redundancy Protocol  Version 2 |
| Symptom: | SAG will become inactive after boot | | |

| Condition: | When multiple VE interfaces are configured with same gateway-address, after reboot, the SAG will become inactive. |
|---|---|
| Workaround: | Remove and reconfigure the anycast address |

| Parent Defect ID: | SLXOS-62540 | Issue ID: | SLXOS-62902 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2 |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | A cluster link port towards primary border leaf (BL2) does not come up after doing "shut"/"no-shutdown" | | |
| Condition: | One of the cluster link ports towards primary border leaf (BL2) was shutdown. After about 30 seconds no shut was performed on the same port. | | |
| Workaround: | Perform a "shutdown"/"no shutdown" on the link | | |

| Parent Defect ID: | SLXOS-61178 | Issue ID: | SLXOS-62976 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3d |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | ICMP - Internet Control Message Protocol |
| Symptom: | Slowness on the ping responses on SLX. | | |
| Condition: | On SLX node, CPU is busy with the higher priority packets. | | |

| Parent Defect ID: | SLXOS-62308 | Issue ID: | SLXOS-62979 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3g |
| Technology Group: | Management | Technology: | Other |
| Symptom: | Unexpected reload of SLX switch. | | |
| Condition: | Unqualified QSFP inserted on SLX switch and causes the SLX node to reload. | | |

| Parent Defect ID: | SLXOS-61558 | Issue ID: | SLXOS-62992 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3d |
| Technology Group: | Management | Technology: | Other |
| Symptom: | Occasional TPVM CPU spike above 90% noticed for 1-2 sec. | | |
| Condition: | Collecting EFA support-save on TPVM. | | |

| Parent Defect ID: | SLXOS-62671 | Issue ID: | SLXOS-62995 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2b |

| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4+ - IPv6 Border Gateway Protocol |
|---|---|---|---|
| Symptom: | Latency of around 250ms to 1second is observed on SLX device. | | |
| Condition: | SLX node has experienced the CPU congestion | | |

| Parent Defect ID: | SLXOS-62230 | Issue ID: | SLXOS-62998 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2c |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | On SLX 9640, BGP flaps are seen sometimes | | |
| Condition: | In a scaled environment, and when high rate of control packets are processed on CPU, it can lead to lead loss of BGP packets. | | |

| Parent Defect ID: | SLXOS-62722 | Issue ID: | SLXOS-63001 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3c |
| Technology Group: | Traffic Management | Technology: | QoS - Quality of Service |
| Symptom: | Packets are egressing with DSCP value as 0 value, irrespective of incoming DSCP value. | | |
| Condition: | In IP fabric environment, packets ingress at the SLX 9150 leaf switch with non-zero DSCP values and egress the SLX 9250 border leaf switch. | | |

| Parent Defect ID: | SLXOS-62849 | Issue ID: | SLXOS-63004 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3g |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | May experience 20-60 seconds of traffic loss. | | |
| Condition: | On BGP re-convergence on network with below scale values, where 873k+ bgp ipv4 routes + 136k+ bgp ipv6 routes made to switch other path because of manual shut on working path. | | |

| Parent Defect ID: | SLXOS-60943 | Issue ID: | SLXOS-63018 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.1.2g |
| Technology Group: | Monitoring | Technology: | sFlow |
| Symptom: | Sflow collector is configured for user vrf | | |
| Condition: | Sflow sample reaching sflow collector via default vrf. | | |

| Parent Defect ID: | SLXOS-63092 | Issue ID: | SLXOS-63092 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | Convergence times of upto 800 msec is seen when an interface from the Gateway towards the Border Leaf is shut down | | |
| Condition: | There is a port channel between PE router and the Border leaf. The minimum-links is configured in the port channel. One of the physical interfaces in the port channel is shut and the minimum-link configuration brings down the port channel. The convergence time for the traffic from the border leaf towards the gateway is sometimes seen to be in the range of 500-800 msec. | | |
| Workaround: | Using only BGP routes and configuring Prefix-Independent-Convergence can provide better convergence times than having static routes. | | |

| Parent Defect ID: | SLXOS-62353 | Issue ID: | SLXOS-63106 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Layer 2 Switching | Technology: | VXLAN - Virtual Extensible LAN |
| Symptom: | VRF traffic loss is greater than 1sec upon spine node reboot. | | |
| Condition: | Upon spine reboot, few BFD sessions from compute nodes to border-leaf flap and see a traffic loss for 1-2 sec | | |

| Parent Defect ID: | SLXOS-63115 | Issue ID: | SLXOS-63115 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Security | Technology: | ACLs - Access Control Lists |
| Symptom: | On SLX 9740, Ingress ipv6 access-list counters do not increment in ipv6-optimised tcam profile | | |
| Condition: | User has configured to use ipv6-optimised tcam profile and has configured counters for matching ipv6 access-list rules. Issued "clear counters" cli command. | | |

| Parent Defect ID: | SLXOS-63118 | Issue ID: | SLXOS-63118 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Other | Technology: | Other |

| Symptom: | 2nd and 3rd BO ports of Extreme 8520-48XT and Extreme 8520-48Y do not come up when OIR is done and they are connected to Spirent or a SLX 9150 respectively. |
|---|---|
| Condition: | When OIR is done on Extreme 8520-48XT or Extreme 8520-48Y devices. |
| Workaround: | Remove and configure the breakout config or reload the device. |

| Parent Defect ID: | SLXOS-63121 | Issue ID: | SLXOS-63121 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | "show cluster track" command does not display correct interface status | | |
| Condition: | Interface status is not displayed as 'down' under 'show cluster track' when port-channel becomes down due to the minimum-link criteria not being met. | | |

| Parent Defect ID: | SLXOS-61254 | Issue ID: | SLXOS-63124 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 18r.1.00ca |
| Technology Group: | MPLS | Technology: | LDP - Label Distribution Protocol |
| Symptom: | Duplicate LDP Address Withdraw Message sent from LDP for each VC-Peer. | | |
| Condition: | Issue is seen when we do "clear mac-address" under a bridge domain. | | |

| Parent Defect ID: | SLXOS-63182 | Issue ID: | SLXOS-63182 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | Sometimes the switch reload is seen in a scaled environment. | | |
| Condition: | In scaled environment and BGP PIC configuration is enabled, when routes are learned through BGP and are getting processed. | | |

| Parent Defect ID: | SLXOS-63253 | Issue ID: | SLXOS-63253 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | MCT Cluster peer-interface Port-channel flaps few times | | |

| Condition: | On reloading one of the border leaf nodes in the MCT configuration, ICL port-channel flaps, while the reloaded node is coming online. This happens when more than 5000 BFD sessions are established over the VxLAN tunnel. |
|---|---|

| Parent Defect ID: | SLXOS-63282 | Issue ID: | SLXOS-63282 |
|---|---|---|---|
| Severity: | S1 - Critical | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Monitoring | Technology: | Port Mirroring |
| Symptom: | On SLX 9740, flow based mirroring is not working for flow matching deny rules with the configured ACL | | |
| Condition: | configure mirror action in deny rule , traffic matching deny rule are not mirrored. | | |

| Parent Defect ID: | SLXOS-63289 | Issue ID: | SLXOS-63289 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.4 |
| Technology Group: | Monitoring | Technology: | sFlow |
| Symptom: | Flow based ERSPAN mirroring is not working in the ingress direction. | | |
| Condition: | If the configured ERSPAN id is more than 255. | | |
| Workaround: | Configure ERSPAN is to be less than 25 | | |

| Parent Defect ID: | SLXOS-63125 | Issue ID: | SLXOS-63317 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3g |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | MAC address is not updated properly when there is MAC move between MCT peer nodes multiple times. | | |
| Condition: | In the IP fabric, the MAC move happens between the MCT peer nodes. | | |

## Defects Closed with Code Changes

The following software defects were closed in 20.3.4 with a code change as of **December 2021**:

| Parent Defect ID: | SLXOS-51569 | Issue ID: | SLXOS-51843 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.1 |
| Technology Group: | Monitoring | Technology: | OAM - Operations, Admin & Maintenance |

| Symptom: | On 9740-80, CFM session doesn't come-up when a bridge domain (BD) is configured with logical interfaces on breakout front panel ports (in the series 0/41-80). On BD deletion, the CFM sessions are up |
|---|---|
| Condition: | Bridge domain (BD) is configured with logical interfaces on breakout front panel ports of the series 0/41-80. |

| Parent Defect ID: | SLXOS-56079 | Issue ID: | SLXOS-56079 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2b |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |
| Symptom: | The switch might reload unexpectedly after a BGP process failure. | | |
| Condition: | On SLX 9740, that is configured as a border leaf MCT node, and BGP is configured with BFD is enabled for all the BGP peering sessions. Sometimes on a reload of one of the border leaf switch, BFD sessions flap unexpectedly and can cause BGP session reset. | | |

| Parent Defect ID: | SLXOS-58073 | Issue ID: | SLXOS-58073 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3b |
| Technology Group: | Layer 2 Switching | Technology: | Other |
| Symptom: | VPLS traffic terminating towards TPVM insight interface is trapped to CPU instead of forwarding it out of switch. | | |
| Condition: | TPVM insight interface is the AC interface(attachment circuit) for the VPLS terminating packets. | | |

| Parent Defect ID: | SLXOS-58421 | Issue ID: | SLXOS-58421 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3b_CVR |
| Technology Group: | Other | Technology: | Other |
| Symptom: | Console is not able to use, due to continuously getting the SMBus Message "i801_smbus 0000:00:1f.4: SMBus is busy". | | |
| Condition: | After reload the device. the console is getting continuously "i801_smbus 0000:00:1f.4": SMBus Message. | | |

| Parent Defect ID: | SLXOS-59936 | Issue ID: | SLXOS-59936 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2 |
| Technology Group: | Monitoring | Technology: | Port Mirroring |
| Symptom: | On SLX-9740, ACL based Egress mirroring does not mirror traffic from source port in the transmit direction. | | |

| Condition: | Monitor session is created with "tx" direction and flow-based. After Egress ACL is applied with "mirror" action on the source port, the transmit direction traffic is not mirrored. |
|---|---|

| Parent Defect ID: | SLXOS-60558 | Issue ID: | SLXOS-60963 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3d |
| Technology Group: | Management | Technology: | CLI - Command Line Interface |
| Symptom: | "ip ospf area" configuration missing on some interfaces associated with OSPF instance enabled on non-default VRF | | |
| Condition: | upgrade from 20.1.2x to 20.2.3x code | | |

| Parent Defect ID: | SLXOS-61077 | Issue ID: | SLXOS-61094 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Layer 2 Switching | Technology: | VXLAN - Virtual Extensible LAN |
| Symptom: | L2agt daemon terminates on EVPN-MH Leaf node | | |
| Condition: | Sometimes l2agt daemon reload may be seen when the uplink port is flapped a few times on a EVPN multihoming node | | |

| Parent Defect ID: | SLXOS-61014 | Issue ID: | SLXOS-61273 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2a |
| Technology Group: | Management | Technology: | SNMP - Simple Network Management Protocol |
| Symptom: | BGP ipv4 traps will not be sent from SLX. | | |
| Condition: | When bgp ipv4 session is established and if the bgp session is made up or down, default bgp ipv4 traps meant for session up/down for ipv4 peers will not be sent from slx. | | |

| Parent Defect ID: | SLXOS-61332 | Issue ID: | SLXOS-61332 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | The ICL port link is flapping for some time, and traffic convergence takes more than 10 sec. | | |
| Condition: | Reloading the CCEP device. | | |

| Parent Defect ID: | SLXOS-61339 | Issue ID: | SLXOS-61409 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2a |
| Technology Group: | Layer 2 Switching | Technology: | Other |
| Symptom: | When QOS profile is set as "lossless" and cee default exists, the interfaces which are in LLDP UP state sends DOT1-TLV also. This is not exepcted. | | |
| Condition: | When QOS profile is set as "lossless" and cee default exists. | | |

| Parent Defect ID: | SLXOS-61523 | Issue ID: | SLXOS-61523 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Management | Technology: | Other |
| Symptom: | Bootup can sometimes fail on Extreme 8720/8520 and sometimes the management link fails to come up. | | |
| Condition: | On switch bootup. | | |

| Parent Defect ID: | SLXOS-61515 | Issue ID: | SLXOS-61557 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3g |
| Technology Group: | Layer 2 Switching | Technology: | MCT - Multi-Chassis Trunking |
| Symptom: | After mac-move the MAC is still displayed as Dynamic-CCL | | |
| Condition: | After a mac-move from remote leaf and then between a MCT peers, the MAC is displayed as Dynamic-CCL instead of CCR | | |

| Parent Defect ID: | SLXOS-61573 | Issue ID: | SLXOS-61573 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | ARP - Address Resolution Protocol |
| Symptom: | Ipv6 Neighbor is not updated with correct MAC address | | |
| Condition: | In IP fabric scenario, virtual machine or the host moves from remote leaf to the local leaf with different mac. | | |

| Parent Defect ID: | SLXOS-61193 | Issue ID: | SLXOS-62140 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 18r.1.00ca |
| Technology Group: | Layer 2 Switching | Technology: | Other |
| Symptom: | After specific MAC cleared, MAC withdraw message is not triggered | | |
| Condition: | MAC table should have the valid MAC entries. Perform the cli command "clear mac-address-table dynamic address <mac>" | | |

| Parent Defect ID: | SLXOS-61937 | Issue ID: | SLXOS-62241 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Monitoring | Technology: | Hardware Monitoring |
| Symptom: | IPv4 Flow based mirroring with  VLAN as source does not work. | | |
| Condition: | Configure IPv4 flow based mirroring with source as VLAN and then reload the Device. | | |

| Parent Defect ID: | SLXOS-62268 | Issue ID: | SLXOS-62268 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Other | Technology: | Other |
| Symptom: | On reload of the switch, sometimes the 100gig SR4 optic link may not come up. | | |
| Condition: | On switch bootup. | | |

| Parent Defect ID: | SLXOS-62311 | Issue ID: | SLXOS-62323 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3e |
| Technology Group: | Management | Technology: | Software Installation & Upgrade |
| Symptom: | Firmware download and firmware download sanity NETCONF requests are failing. | | |
| Condition: | Firmware host password has a special character '&' char in the password | | |

| Parent Defect ID: | SLXOS-62111 | Issue ID: | SLXOS-62364 |
|---|---|---|---|
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Management | Technology: | CLI - Command Line Interface |
| Symptom: | CLI command "show running-config snmp-server host <ip-address>" displays error for some specific host IP addresses. | | |
| Condition: | When multiple host entries are configured, and if the numerically sorted order and lexicographically sorted order of host IP addresses are different. | | |

| Parent Defect ID: | SLXOS-62334 | Issue ID: | SLXOS-62386 |
|---|---|---|---|
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3g |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BGP4 - IPv4 Border Gateway Protocol |

| Symptom: | BGP session may get impacted due to internal BGP rate-limit in transient router on 9540/9640 devices. |
| --- | --- |
| Condition: | BGP session may get impacted when high rate of BGP traffic is send via transient router 9540/9640. |

| Parent Defect ID: | SLXOS-62526 | Issue ID: | SLXOS-62526 |
| --- | --- | --- | --- |
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Layer 2 Switching | Technology: | VXLAN - Virtual Extensible LAN |
| Symptom: | Multicast traffic from remote leaf loops back to the source node and multi-home client receives duplicate traffic | | |
| Condition: | When multicast traffic sent over the VxLAN tunnel to EVPN Multi-homing node, the traffic is not dropped at the non-DF multi-homing node. The traffic is looped back to the source node and multi-homed clients receives duplicate traffic. | | |

| Parent Defect ID: | SLXOS-61207 | Issue ID: | SLXOS-62595 |
| --- | --- | --- | --- |
| Severity: | S3 - Moderate | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2b |
| Technology Group: | Monitoring | Technology: | Syslog |
| Symptom: | The literal "BOM" is replaced with hexadecimal values "EF.BB.BF" as per RFC. | | |
| Condition: | when the format "RFC-5424" is enabled for syslog-ng. | | |

| Parent Defect ID: | SLXOS-62457 | Issue ID: | SLXOS-62623 |
| --- | --- | --- | --- |
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2c |
| Technology Group: | Security | Technology: | ACLs - Access Control Lists |
| Symptom: | After switch reboot, user was not able to access the switch using ssh using management IP. | | |
| Condition: | Upon switch reboot | | |

| Parent Defect ID: | SLXOS-63022 | Issue ID: | SLXOS-63055 |
| --- | --- | --- | --- |
| Severity: | S2 - Major | | |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2d |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BFD - BiDirectional Forwarding Detection |
| Symptom: | BFD Session flaps once in broader leaf . | | |
| Condition: | Spine node is reloaded when SLX 9150/SLX9250/ Extreme 8720 / Extreme 8520 acts as a border leaf in Centralized IP fabric. | | |

## Defects Closed without Code Changes

The following software defect was closed in 20.3.4 without code change as of **December 2021**.

| Parent Defect ID: | SLXOS-45474 | Issue ID: | SLXOS-45474 |
|---|---|---|---|
| **Reason Code:** | Will Not Fix | **Severity:** | S2 - Major |
| **Product:** | SLX-OS | **Reported in Release:** | SLXOS 20.1.1 |
| **Technology Group:** | Traffic Management | **Technology:** | Traffic Queueing and Scheduling |
| **Symptom:** | In some cases mcast drops are observed based on pkt size and number of replications. | | |
| **Condition:** | Mcast drops will be observed when mcast traffic is sent with more replications along with unicast traffic. | | |
| **Workaround:** | There is no traffic loss observed with following below numbers.<br><br>1 G link Egress (with 40% Unicast traffic)<br> 48 OIFs (6 S,G's and 8 vlans (hosts) per S,G) without seeing loss.<br><br>10 G link Ingress/Egress (with 40% Unicast traffic)<br>54 vlan with 6 (S,G) Multicast groups per vlan<br><br>100G link Ingress/10G Egress (with 40% Unicast traffic)<br>42 vlan with 6 (S,G) Multicast groups per vlan | | |

| Parent Defect ID: | SLXOS-51407 | Issue ID: | SLXOS-51407 |
|---|---|---|---|
| **Reason Code:** | Design Limitation | **Severity:** | S3 - Moderate |
| **Product:** | SLX-OS | **Reported in Release:** | SLXOS 20.2.1 |
| **Technology Group:** | MPLS | **Technology:** | MPLS VPLS - Virtual Private LAN Services |
| **Symptom:** | VPLS statistics will not be accounted in underlying MPLS tunnel statistics | | |
| **Condition:** | When both Bridge-domain statistics and MPLS ingress-tunnel-account statistics are enabled, Traffic egress in VPLS PW under the bridge-domain will not be accounted in underlying MPLS tunnel statistics in which the VPLS PW is established. | | |

| Parent Defect ID: | SLXOS-55185 | Issue ID: | SLXOS-55185 |
|---|---|---|---|
| **Reason Code:** | Working as Designed | **Severity:** | S3 - Moderate |
| **Product:** | SLX-OS | **Reported in Release:** | SLXOS 20.1.2c |
| **Technology Group:** | Monitoring | **Technology:** | RAS - Reliability, Availability, and Serviceability |
| **Symptom:** | Few RAS logs are missing | | |
| **Condition:** | After reaching the higher value of sequence number in RAS logs.<br>EX: [NSM-1020], 5610250(sequence number), DCE, INFO, SLX-R1, interface Ethernet 0/x is administratively down. | | |

| Parent Defect ID: | SLXOS-55372 | Issue ID: | SLXOS-55372 |
|---|---|---|---|
| Reason Code: | Design Limitation | Severity: | S2 - Major |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.2a |
| Technology Group: | MPLS | Technology: | LDP - Label Distribution Protocol |
| Symptom: | "show mpls statistics ldp" command statistics will not increment on transit nodes for SLX9740 for transient session accounting. | | |
| Condition: | MPLS XC statistics will not increment on transit nodes for SLX9740 if following transit-session-accounting config is enabled.<br>-------------------------------------------------<br>router mpls<br>policy<br>transit-session-accounting | | |

| Parent Defect ID: | SLXOS-57246 | Issue ID: | SLXOS-57428 |
|---|---|---|---|
| Reason Code: | Design Limitation | Severity: | S2 - Major |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.2.3b |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BFD - BiDirectional Forwarding Detection |
| Symptom: | BFD session establishment will be delayed by 75-120 seconds in SLX 9740. | | |
| Condition: | After MCT/ICL link comes UP . | | |

| Parent Defect ID: | SLXOS-59114 | Issue ID: | SLXOS-59114 |
|---|---|---|---|
| Reason Code: | Not Reproducible | Severity: | S2 - Major |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2 |
| Technology Group: | Layer 3 Routing/Network Layer | Technology: | BFD - BiDirectional Forwarding Detection |
| Symptom: | BFD sessions may flap in SLX-9740. | | |
| Condition: | On shutting down the member interface of the port-channel . | | |

| Parent Defect ID: | SLXOS-60738 | Issue ID: | SLXOS-60796 |
|---|---|---|---|
| Reason Code: | Already Implemented | Severity: | S3 - Moderate |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2a |
| Technology Group: | Security | Technology: | AAA - Authentication, Authorization, and Accounting |
| Symptom: | Removing secure LDAP server(configured for TPVM) changes secure LDAP server to non-secure LDAP server. | | |
| Condition: | 1. Configure LDAP server with "secure" parameter<br>2. Remove the LDAP server entry | | |

| Parent Defect ID: | SLXOS-62156 | Issue ID: | SLXOS-62156 |
|---|---|---|---|
| Reason Code: | Design Limitation | Severity: | S2 - Major |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.3 |
| Technology Group: | Layer 2 Switching | Technology: | Other |
| Symptom: | In EVPN Multi-homing environment, on repeated multiple triggers like node reload and clear-mac-dynamic operations, few macs may stuck as ES-Remote on one of the MH-node, and the same mac may be missing on peer MH-node. | | |
| Condition: | Repeated execution of multiple triggers like MH node reload, ESI client port flag, and clear-mac-dynamic operations. | | |
| Workaround: | ESI client port flap should clear macs on the interface. | | |

| Parent Defect ID: | SLXOS-62153 | Issue ID: | SLXOS-62192 |
|---|---|---|---|
| Reason Code: | Cannot Fix | Severity: | S3 - Moderate |
| Product: | SLX-OS | Reported in Release: | SLXOS 20.3.2b |
| Technology Group: | Security | Technology: | User Accounts & Passwords |
| Symptom: | TPVM login is not working after upgrade from 20.3.2b to a later release | | |
| Condition: | This happens when the TPVM login password string has a "\" character. | | |
| Recovery: | Stop TPVM and reconfigure same password after upgrade | | |